

BID DOCUMENTS
FOR

CAMINADA HEADLAND BACK BARRIER MARSH
CREATION PROJECT
(BA-0171)

LAFOURCHE AND JEFFERSON PARISHES, LOUISIANA



STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY

OCTOBER 2019

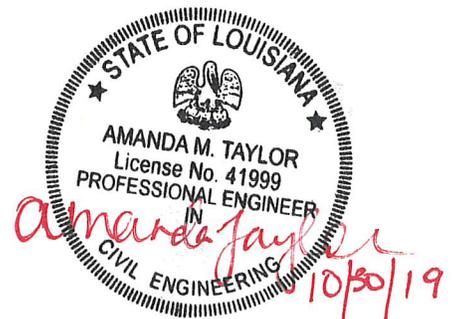


Table of Contents

<u>GENERAL REQUIREMENTS</u>		Page
Table of Contents		i
List of Appendices		iii
List of Drawings		iv

Procurement Requirements	
Advertisement for Bids	CPRA-ADV-1

Instruction for Procurement	
Instructions to Bidders	CPRA-IB-1

Procurement Forms and Supplements	
Louisiana Uniform Public Works Bid Form	
Bid Security Form	
Attestations	

Contracting Requirements	
Examples of Contract Between Owner & Contractor & Performance & Payment Bond & Affidavit	

<u>Section</u>	<u>Title</u>	<u>Page No.</u>
PART I	GENERAL PROVISIONS	1
GP-1	DEFINITION OF TERMS	1
GP-2	BID REQUIREMENTS.....	4
GP-3	AVAILABILITY OF PLANS AND SPECIFICATIONS	5
GP-4	LAWS, REGULATIONS, STANDARDS, SPECIFICATIONS, AND CODES	5
GP-5	PRE-BID CONFERENCE AND SITE VISIT.....	6
GP-6	NOTICE OF AWARD.....	6
GP-7	NOTICE TO PROCEED AND CONTRACT TIME.....	7
GP-8	WORK PLAN.....	7
GP-9	PROGRESS SCHEDULE	8
GP-10	DAILY PROGRESS REPORTS	8
GP-11	HURRICANE AND SEVERE STORM PLAN	9
GP-12	HEALTH AND SAFETY PLAN AND INSPECTIONS	10
GP-13	PROGRESS MEETINGS AND REPORTS	11
GP-14	PRE-CONSTRUCTION CONFERENCE.....	11
GP-15	CONTRACT INTENT	11
GP-16	ENGINEER AND AUTHORITY OF ENGINEER.....	11
GP-17	CONFORMITY WITH PLANS AND SPECIFICATIONS.....	12
GP-18	CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS.....	12
GP-19	SUBCONTRACTS.....	12
GP-20	WORKERS, METHODS, AND EQUIPMENT	13
GP-21	ACCIDENT PREVENTION, INVESTIGATIONS, AND REPORTING.....	14
GP-22	PRESERVATION AND RESTORATION OF PROPERTY, MONUMENTS, ETC.....	14
GP-23	PROTECTION OF THE WORK, MATERIALS, AND EQUIPMENT	15
GP-24	LAND RIGHTS.....	15
GP-25	UTILITIES	15
GP-26	PERMITS	16
GP-27	PROJECT SITE CLEAN-UP	16

GP-28	OWNER INSPECTION	16
GP-29	DUTIES OF RESIDENT PROJECT REPRESENTATIVE	16
GP-30	CONSTRUCTION STAKES, LINES, AND GRADES	17
GP-31	CONTRACTOR'S RESPONSIBILITY FOR WORK	17
GP-32	ENVIRONMENTAL PROTECTION	17
GP-33	SANITARY PROVISION	18
GP-34	PAYMENT OF TAXES	18
GP-35	RADIO AND TELEPHONES	18
GP-36	NAVIGATION	18
GP-37	OBSTRUCTION TO NAVIGATION	19
GP-38	MARINE VESSELS AND MARINE ACTIVITIES	19
GP-39	RECORD KEEPING	19
GP-40	CERTIFICATES OF COMPLIANCE	19
GP-41	SUBMITTALS	20
GP-42	CLAIMS FOR EXTRA COST	20
GP-43	ALTERATION OF THE CONTRACT AND COMPENSATION	20
GP-44	EXTENSION OF CONTRACT TIME	21
GP-45	OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE	21
GP-46	TEMPORARY SUSPENSION OF WORK	22
GP-47	NON-CONFORMING AND UNAUTHORIZED WORK	23
GP-48	CONTRACTOR'S RIGHT TO TERMINATE CONTRACT	23
GP-49	BREACH OF CONTRACT	23
GP-50	NO WAIVER OF LEGAL RIGHTS	23
GP-51	LIABILITY FOR DAMAGES AND INJURIES	24
GP-52	LIABILITY FOR LOSSES BY ACTS OF THE GOVERNMENT	24
GP-53	FINAL INSPECTION AND ACCEPTANCE	24
GP-54	AS-BUILT DRAWINGS	25
GP-55	COMPLETION OF CONTRACT	25
GP-56	CONTRACTOR'S GUARANTEE	25
GP-57	DISPUTE RESOLUTION	26
GP-58	PAYMENT	26
GP-59	PAYMENTS WITHHELD	27
GP-60	LIENS	28
GP-61	EQUAL EMPLOYMENT OPPORTUNITY	28
GP-62	ANTI-KICKBACK CLAUSE	28
GP-63	SUSPENSION/DEBARMENT	28
GP-64	LOUISIANA FIRST HIRING ACT	29
PART II	SPECIAL PROVISIONS	30
SP-1	LOCATION OF WORK	30
SP-2	WORK TO BE DONE	30
SP-3	CONTRACT MILESTONES	31
SP-4	DELIVERABLES	32
SP-5	CONTACT INFORMATION	33
SP-6	INSURANCE AND BONDS	33
SP-7	WORK PLAN SUPPLEMENTAL	38
SP-8	FAILURE TO COMPLETE ON TIME	39
SP-9	TRANSPORTATION	39
SP-10	OFFICE FOR OWNER	39
SP-11	LANDOWNER AND PIPELINE REQUIREMENTS	39
SP-12	OYSTER LEASE RESTRICTIONS	40
SP-13	SPECIES OF CONCERN	40
SP-14	NOTIFICATION OF DISCOVERY OF HISTORICAL OR CULTURAL SITES	40
SP-15	NAVIGATION	41
SP-16	NOTICE TO MARINERS	41

SP-17	AIDS TO NAVIGATION	41
SP-18	ADJUSTMENT OF QUANTITIES	41
SP-19	FILE SHARE PLATFORM.....	41
SP-20	AERIAL PHOTOGRAPHY	42
SP-21	PROHIBITION OF DISCRIMINATORY BOYCOTTS OF ISREAL IN STATE PROCUREMENT	42
PART III TECHNICAL SPECIFICATIONS.....		43
TS-100	HYDRAULIC DREDGE MOBILIZATION AND DEMOBILIZATION	43
TS-101	DREDGE PIPELINE MOBILIZATION, INSTALLATION AND DEMOBILIZATION	44
TS-102	GENERAL MOBILIZATION AND DEMOBILIZATION	46
TS-210	SURVEYS	47
TS-211	DAILY BIRD ABATEMENT	55
TS-220	GRADE STAKES	57
TS-251	INSTRUMENTED SETTLEMENT PLATES	58
TS-300	EARTHEN CONTAINMENT DIKES	60
TS-301	PRIORITY EARTHEN DIKE.....	62
TS-400	HYDRAULIC DREDGING AND MARSH FILL	64
TS-510	WEIRS.....	66
APPENDIX A: REQUEST FOR INFORMATION FORM		
APPENDIX B: CHANGE ORDER FORM		
APPENDIX C: RECOMMENDATION OF ACCEPTANCE FORM		
APPENDIX D: LANDRIGHTS MEMORANDUM		
APPENDIX E: PERMITS OBTAINED BY OWNER		
APPENDIX F: DIRECTIONS TO BOAT LAUNCH		
APPENDIX G: SECONDARY SURVEY MONUMENT DATA SHEET		
APPENDIX H: GEOTECHNICAL REPORT		
APPENDIX I: SURVEY REPORT		
APPENDIX J: HYDRAULIC DREDGE DATA SHEET		
APPENDIX K: EQUIPMENT DATA SHEET		
APPENDIX L: DAILY PROGRESS REPORT FORM		
APPENDIX M: PREVAILING WAGE DETERMINATION		
APPENDIX N: ENVIRONMENTAL DOCUMENTS		
APPENDIX O: PROPOSED RATIOS OF EFFORT BREAKDOWN		

LIST OF DRAWING SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	GENERAL NOTES
3	PROJECT LAYOUT
4	BORROW AREA LAYOUT
5-6	MARSH CREATION AREA LAYOUT
7	TYPICAL BORROW AREA SECTIONS
8	TYPICAL DREDGE PIPELINE CORRIDOR AND PIPELINE CORRIDOR SECTIONS
9	TYPICAL MARSH CREATION AREA
10	EARTHEN CONTAINMENT DIKE SECTIONS
11	INSTRUMENTED SETTLEMENT PLATE AND GRADE STAKE DETAILS
12	BORROW AREA DESIGN SURVEY LAYOUT
13	BORROW AREA CONSTRUCTION SURVEY LAYOUT
14-15	MARSH CREATION AREA DESIGN SURVEY LAYOUT
16-17	INSTRUMENTED SETTLEMENT PLATE AND CONSTRUCTION SURVEY LAYOUT
18-33	BORROW AREA SECTIONS
34-41	DREDGE PIPELINE CORRIDOR SECTIONS
42-51	MARSH CREATION AREA SECTIONS
52-53	EQUIPMENT ACCESS CORRIDOR SECTIONS

ADVERTISEMENT FOR BIDS

Sealed bids will be received for the State of Louisiana by the Coastal Protection and Restoration Authority, 150 Terrace Avenue, 4th Floor Conference Center, Baton Rouge, Louisiana 70802 until **2:00 P.M., Thursday, January 9, 2020.**

ANY PERSON REQUIRING SPECIAL ACCOMMODATIONS SHALL NOTIFY THE COASTAL PROTECTION AND RESTORATION AUTHORITY OF THE TYPE(S) OF ACCOMMODATION REQUIRED NOT LESS THAN SEVEN (7) DAYS BEFORE THE BID OPENING.

FOR: **Caminada Headland Back Barrier Marsh Creation
Lafourche and Jefferson Parishes, Louisiana**

PROJECT NUMBER: **BA-0171**

Complete Bid Documents for this project are available in electronic form. They may be obtained without charge and without deposit from <http://coastal.la.gov/resources/rfps-rsiqs-contracts/bids/>. Printed copies can also be obtained from:

COASTAL PROTECTION AND RESTORATION AUTHORITY (CPRA)
150 Terrace Avenue, Baton Rouge, LA 70802
Attn: Allison Richard
E-mail: cpra.bidding@la.gov Phone: (225) 342-5453 Fax: (225) 800-5599

All bids shall be accompanied by bid security in an amount of five percent (5.0%) of the sum of the base bid and all alternates. The form of this security shall be as stated in the Instructions to Bidders included in the Bid Documents for this project.

The successful Bidder shall be required to furnish a Performance and Payment Bond written as described in the Instructions to Bidders included in the Bid Documents for this project.

**A MANDATORY PRE-BID CONFERENCE WILL BE HELD at 9:00 AM on Tuesday, December 3, 2019
at Greater Lafourche Port Commission's Fourchon Operations Center Board Room
at 180 A.O. Rappelet Road, Port Fourchon, LA 70357**

**A MANDATORY JOBSITE VISIT WILL BE HELD at 11:00 AM on Tuesday, December 3, 2019
at Parish Boat Launch on Highway LA 3090 South**

Contact Ms. Leigh Guidry or her associates at (985) 632-6701 if directions are needed to the Mandatory Pre-Bid Conference or the Mandatory Jobsite Visit. Directions to the Greater Lafourche Port Commission's Operations Center (Wilbert Collins, Sr. Operation Center) can be found using the link <http://portfourchon.com/contact-us/directions/>. Directions to the boat launch can be found in Appendix F.

Bids shall be accepted only from those bidders who attend both the Mandatory Pre-Bid Conference and the Mandatory Jobsite Visit in its entirety. The Mandatory Jobsite Visit being conducted by CPRA will facilitate access to project features that are located on private property. Outside of the Mandatory Jobsite Visit the Contractor will not have access to the features on the property. **Contractors shall be responsible for providing their own air boat as well as any rental and boat launching fees.**

Bids shall be accepted from Contractors who are licensed under LA. R.S. 37:2150-2192 for the classification of **Heavy Construction or Dredging**. In accordance with LA. R.S. 37:2163(D), anyone objecting to the classification must send a certified letter to both the Louisiana State Licensing Board for Contractors and the CPRA at the address listed above. The letter must be received no later than ten (10) working days prior to the day on which bids are to be opened.

Bidder is required to comply with provisions and requirements of LA R.S.38:2212(B)(5). No bid may be withdrawn for a period of forty-five (45) calendar days after receipt of bids, except under the provisions of LA. R.S. 38:2214.

The Owner reserves the right to reject any and all bids for just cause. In accordance with La. R.S. 38:2212(B)(1), the provisions and requirements of this Section; and those stated in the bidding documents shall not be waived by any entity.

When this project is financed either partially or entirely with State Bonds or financed in whole or in part by federal or other funds which are not readily available at the time bids are received, the award of this Contract is contingent upon the granting of lines of credit, or the sale of bonds by the Bond Commission or the availability of federal or other funds. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is fully executed.

Coastal Protection and Restoration Authority is a participant in the Small Entrepreneurship (SE) Program (the Hudson Initiative) and the Veteran-Owned and Service-Connected Disabled Veteran-Owned (LaVet) Small Entrepreneurships Program. Bidders are encouraged to consider participation. Information is available from Coastal Protection and Restoration Authority or on its website at <http://www.coastal.la.gov/>.

STATE OF LOUISIANA
COASTAL PROTECTION AND RESTORATION AUTHORITY
LAWRENCE B. HAASE, EXECUTIVE DIRECTOR

INSTRUCTIONS TO BIDDERS

COMPLETION TIME:

The Bidder shall agree to fully complete the contract within **Five Hundred Forty-Eight (548)** consecutive calendar days for the Base Bid, subject to such extensions as may be granted under Section GP-44 of the General Provisions and acknowledges that this construction time will start on or before the date specified in the written "Notice to Proceed" from the Owner.

LIQUIDATED DAMAGES:

The Bidder shall agree to pay as Liquidated Damages the amount of **Five Thousand Four Hundred Seventy Dollars (\$5,470.00)** for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the contract completion date stated on the "Notice to Proceed" or as amended by change order.

ARTICLE 1

DEFINITIONS

1.1 The Bid Documents include the following:

- Advertisement for Bids
- Instructions to Bidders
- Bid Form
- Bid Bond
- General Provisions
- Special Provisions
- Technical Specifications
- Construction Drawings
- Contract Between Owner and Contractor and Performance and Payment Bond
- Affidavit
- User Agency Documents (if applicable)
- Change Order Form
- Recommendation of Acceptance
- Other Documents (if applicable)
- Addenda issued during the bid period and acknowledged in the Bid Form

1.2 All definitions set forth in the General Provisions and the Special Provisions are applicable to the Bid Documents, unless otherwise specifically stated or written.

1.3 Addenda are written and/or graphic instruments issued by the Engineer prior to the opening of bids

which modify or interpret the Bid Documents by additions, deletions, clarifications, corrections and prior approvals.

1.4 A bid is a complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein supported by data called for by the Bid Documents.

1.5 Base bid is the sum stated in the bid for which the Bidder offers to perform the work described as the base, to which work may be added, or deleted for sums stated in alternate bids.

1.6 An alternate bid (or alternate) is an amount stated in the bid to be added to the amount of the base bid if the corresponding change in project scope or materials or methods of construction described in the Bid Documents is accepted.

1.7 A Bidder is one who submits a bid for a prime Contract with the Owner for the work described in the Bid Documents.

1.8 A Sub-bidder is one who submits a bid to a Bidder for materials and/or labor for a portion of the work.

1.9 Where the word "Engineer" is used in any of the documents, it shall refer to the Prime Designer of the project, regardless of discipline.

ARTICLE 2

PRE-BID CONFERENCE

2.1 A Pre-Bid Conference may be held at the time and location described in the Advertisement for Bids. The purpose of the Pre-Bid Conference is to familiarize Bidders with the requirements of the Project and

the intent of the Bid Documents, and to receive comments and information from interested Bidders. If the Pre-Bid Conference and/or Job Site Visit is stated in the Advertisement for Bids to be a Mandatory Pre-Bid Conference and/or Mandatory Job Site Visit, bids shall be accepted only from those bidders who attend the Pre-Bid Conference and/or Job Site Visit. Contractors who are not in attendance for the entire Pre-Bid Conference and/or Job Site Visit will be considered to have not attended.

2.2 Any revision of the Bid Documents made as a result of the Pre-Bid Conference shall not be valid unless included in an addendum.

ARTICLE 3

BIDDER'S REPRESENTATION

3.1 Each Bidder by making his bid represents that:

3.1.1 He has read and understands the Bid Documents and his bid is made in accordance therewith.

3.1.2 He has visited the site and has familiarized himself with the local conditions under which the work is to be performed.

3.1.3 His bid is based solely upon the materials, systems and equipment described in the Bid Documents as advertised and as modified by addenda.

3.1.4 His bid is not based on any verbal instructions contrary to the Bid Documents and addenda.

3.1.5 He is familiar with the Code of Governmental Ethics requirement that prohibits public servants and/or their immediate family members from bidding on or entering into contracts; he is aware that the Designer and its principal owners are considered Public Servants under the Code of Governmental Ethics for the limited purposes and scope of the Design Contract with the State on this Project (see Ethics Board Advisory Opinion, No. 2009-378 and 2010-128); and neither he nor any principal of the Bidder with a controlling interest therein has an immediate family relationship with the Designer or any principal within the Designer's firm. (see La. R.S. 42:1113). Any Bidder submitting a bid in violation of this clause shall be disqualified and any contract entered into in violation of this clause shall be null and void.

3.2 The Bidder must be fully qualified under any State or local licensing law for Contractors in effect

at the time and at the location of the work before submitting his bid. In the State of Louisiana, Revised Statutes 37:2150, et seq. will be considered, if applicable.

The Contractor shall be responsible for determining that all of his Sub-bidders or prospective Subcontractors are duly licensed in accordance with law.

ARTICLE 4

BID DOCUMENTS

4.1 Copies

4.1.1 Bid Documents may be obtained from the Coastal Protection and Restoration Authority as stated in the Advertisement for Bids.

4.1.1.2 In addition to the availability of printed Bid Documents, the Coastal Protection and Restoration Authority will provide the Bid Documents in electronic format. They may be obtained without charge and without deposit as stated in the Advertisement for Bids.

4.1.1.2.2 Where electronic distribution is provided, all other plan holders are responsible for their own reproduction costs.

4.1.2 Complete sets of Bid Documents shall be used in preparing bids; neither the Owner nor the Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

4.1.3 The Owner or Engineer in making copies of the Bid Documents available on the above terms, do so only for the purpose of obtaining bids on the work and do not confer a license or grant for any other use.

4.2 Interpretation or Correction of Bid Documents

4.2.1 Bidders shall promptly notify the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids of any ambiguity, inconsistency or error which they may discover upon examination of the Bid Documents or of the site and local conditions.

4.2.2 Bidders requiring clarification or interpretation of the Bid Documents shall make a written request to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for

Bids, to reach him/her at least seven days prior to the date for receipt of bids.

4.2.3 Any interpretation, correction or change of the Bid Documents will be made by addendum. Interpretations, corrections or changes of the Bid Documents made in any other manner will not be binding and Bidders shall not rely upon such interpretations, corrections and changes.

4.3 Substitutions

4.3.1 The materials, products and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitutions shall be allowed after bids are received.

4.3.2 No substitution will be considered unless written request for approval has been submitted by the Proposer and has been received by the Engineer at least seven (7) working days prior to the opening of bids. (RS38:2295C) Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including model numbers, drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. It shall be the responsibility of the proposer to include in his proposal all changes required of the Bid Documents if the proposed product is used. Prior approval is given contingent upon supplier being responsible for any costs which may be necessary to modify the space or facilities needed to accommodate the materials and equipment approved.

4.3.3 If the Engineer approves any proposed substitution, such approval will be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner.

4.4 Addenda

4.4.1 Addenda will be mailed or delivered to all who are known by the Coastal Protection and Restoration Authority to have received a complete set of Bid Documents.

4.4.2 Copies of addenda will be made available for inspection wherever Bid Documents are on file for that purpose.

4.4.3 Except as described herein, addenda shall not be issued within a period of seventy-two (72) hours prior to the advertised time for the opening of bids, excluding Saturdays, Sundays, and any other legal holidays. If the necessity arises of issuing an addendum modifying the Bid Documents within the seventy-two (72) hour period prior to the advertised time for the opening of bids, then the opening of bids shall be extended at least seven but no more than twenty-one (21) working days, without the requirement of re-advertising. The revised time and date for the opening of bids shall be stated in the addendum.

4.4.4 Each Bidder shall ascertain from the Coastal Protection and Restoration Authority prior to submitting his bid that he has received all addenda issued, and he shall acknowledge their receipt on the Bid Form.

4.4.5 The Owner shall have the right to extend the bid date by up to (30) thirty days without the requirement of re-advertising. Any such extension shall be made by addendum issued by the Coastal Protection and Restoration Authority.

ARTICLE 5

BID PROCEDURE

5.1 Form and Style of Bids

5.1.1 Bids shall be submitted on the Louisiana Uniform Public Work Bid Form provided by the Engineer.

5.1.2 All blanks on the Bid Form shall be filled in manually in ink or typewritten.

5.1.3 Bid sums shall be expressed in both words and figures, and in case of discrepancy between the two, the written words shall govern.

5.1.4 Any interlineation, alteration or erasure must be initialed by the signer of the bid or his authorized representative.

5.1.5 Bidders are cautioned to complete all alternates should such be required in the Bid Form. Failure to submit alternate prices will render the bid non responsive and shall cause its rejection.

5.1.6 Bidders are cautioned to complete all unit prices should such be required in the Bid Form. Unit prices represent a price proposal to do a specified quantity and quality of work.

5.1.7 Bidders are strongly cautioned to ensure that all blanks on the bid form are completely and accurately filled in.

5.1.8 Bidder shall make no additional stipulations on the Bid Form nor qualify his bid in any other manner.

5.1.9 The bid shall include the legal name of Bidder. Written evidence of the authority of the person signing the bid shall be submitted at the time of bidding.

The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable under any of the following conditions:

(a) Signature on bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership, limited liability company, limited liability partnership, or other legal entity listed in the most current business records on file with the Secretary of State.

(b) Signature on bid is that of authorized representative as documented by the legal entity certifying the authority of the person.

(c) Legal entity has filed in the appropriate records of the Secretary of State, an affidavit, resolution or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office. A bid submitted by an agency shall have a current Power of Attorney attached certifying agent's authority to bind Bidder. The name and license number on the envelope shall be the same as the entity identified on the Bid Form.

5.1.10 On any bid in excess of fifty thousand dollars (\$50,000.00), the Contractor shall certify that he is licensed under R.S. 37: 2150-2173 and show his license number on the bid above his signature or his duly authorized representative.

5.2 Bid Security

5.2.1 No bid shall be considered or accepted unless the bid is accompanied by bid security in an amount of five percent (5.0%) of the base bid and all alternates.

The bid security shall be in the form of a certified check or cashier's check drawn on a bank insured by the Federal Deposit Insurance Corporation, or a Bid Bond written by a surety company licensed to do business in Louisiana and signed by the surety's agent or attorney-in-fact. The Bid Bond shall be written on the Coastal Protection and Restoration Authority Bid Bond Form, and the surety for the bond must meet the qualifications stated thereon. The Bid Bond shall include the legal name of the bidder be in favor of the State of Louisiana, Coastal Protection and Restoration Authority, and shall be accompanied by appropriate power of attorney. The Bid Bond must be signed by both the bidder/principal and the surety in the space provided on the Coastal Protection and Restoration Authority Bid Bond Form. Failure by the bidder/principal or the surety to sign the bid bond shall result in the rejection of the bid.

Bid security furnished by the Contractor shall guarantee that the Contractor will, if awarded the work according to the terms of his proposal, enter into the Contract and furnish Performance and Payment Bonds as required by these Bid Documents, within ten (10) days after written notice that the instrument is ready for his signature.

Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as penalty.

5.2.2 The Owner will have the right to retain the bid security of Bidders until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that bids may be withdrawn, or (c) all bids have been rejected.

5.3 Submission of Bids

5.3.1 The Bid shall be sealed in an opaque envelope. The bid envelope shall be identified on the outside with the name of the project, and the name, address, and license number of the Bidder.

The envelope shall contain **only one bid form** and will be received until the time specified and at the place specified in the Advertisement for Bids. It shall be the specific responsibility of the Bidder to deliver his sealed bid to Coastal Protection and Restoration Authority at the appointed place and prior to the announced time for the opening of bids. Late delivery of a bid for any reason, including late delivery by

United States Mail, or express delivery, shall disqualify the bid.

If the bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "Bid Enclosed" on the face thereof. Such bids shall be sent by Registered or Certified Mail, Return Receipt Requested, addressed to:

Coastal Protection and Restoration Authority
P.O. Box 44027
Baton Rouge, Louisiana, 70802-4027

Bids sent by express delivery shall be delivered to:
Coastal Protection and Restoration Authority
150 Terrace Avenue
Suite 100
Baton Rouge, Louisiana 70802

5.3.2 Bids shall be deposited at the designated location prior to the time on the date for receipt of bids indicated in the Advertisement for Bids, or any extension thereof made by addendum. Bids received after the time and date for receipt of bids will be returned unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at location designated for receipt of bids.

5.3.4 Oral, telephonic or telegraphic bids are invalid and shall not receive consideration. Owner shall not consider notations written on outside of bid envelope which have the effect of amending the bid. Written modifications enclosed in the bid envelope, and signed or initialed by the Contractor or his representative, shall be accepted.

5.4 Modification or Withdrawal of Bid

5.4.1 A bid may not be modified, withdrawn or canceled by the Bidder during the time stipulated in the Advertisement for Bids, for the period following the time and bid date designated for the receipt of bids, and Bidder so agrees in submitting his bid, except in accordance with R.S. 38:2214 which states, in part, "Bids containing patently obvious mechanical, clerical or mathematical errors may be withdrawn by the Contractor if clear and convincing sworn, written evidence of such errors is furnished to the public entity within forty eight hours of the Bid Opening excluding Saturdays, Sundays and legal holidays".

5.4.2 Prior to the time and date designated for receipt of bids, bids submitted early may be modified or

withdrawn only by notice to the party receiving bids at the place and prior to the time designated for receipt of bids.

5.4.3 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.

5.4.4 Bid Security shall be in an amount sufficient for the bid as modified or resubmitted.

ARTICLE 6

CONSIDERATION OF BIDS

6.1 Opening of Bids

6.1.1 The properly identified Bids received on time will be opened publicly and will be read aloud, and a tabulation abstract of the amounts of the base bids and alternates, if any, will be made available to Bidders.

6.2 Rejection of Bids

6.2.1 The Owner shall have the right to reject any or all bids and in particular to reject a bid not accompanied by any required bid security or data required by the Bid Documents or a bid in any way incomplete or irregular.

6.3 Acceptance of Bid

6.3.2 It is the intent of the Owner, if he accepts any alternates, to accept them in the order in which they are listed in the Bid Form. Determination of the Low Bidder shall be on the basis of the sum of the base bid and the alternates accepted. However, the Owner shall reserve the right to accept alternates in any order which does not affect determination of the Low Bidder.

ARTICLE 7

POST-BID INFORMATION

7.1 Submissions

7.1.1 The Contractor shall submit all required deliverables in conformance with Section SP-4 of the Special Provisions.

It is the preference of the Owner that, to the greatest extent possible or practical, the Contractor utilize Louisiana Subcontractors, manufacturers, suppliers

and labor.

7.1.2 The Contractor will be required to establish to the satisfaction of the Engineer the reliability and responsibility of the proposed Subcontractors to furnish and perform the work described in the sections of the Specifications pertaining to such proposed Subcontractor's respective trades. The General Contractor shall be responsible for actions or inactions of Subcontractors and/or material suppliers.

The General Contractor is totally responsible for any lost time or extra expense incurred due to a Subcontractor's/or Material Supplier's failure to perform. Failure to perform includes, but is not limited to, a Subcontractor's financial failure, abandonment of the project, failure to make prompt delivery, or failure to do work up to standard. Under no circumstances shall the Owner mitigate the General Contractor's losses or reimburse the General Contractor for losses caused by these events.

7.1.3 Subcontractors and other persons and organizations selected by the Bidder must be used on the work for which they were proposed and shall not be changed except with the written approval of the Owner and the Engineer.

In accordance with La. R.S. 38:2227, LA. R.S. 38:2212.10 and LA. R.S. 23:1726(B) the low bidder on this project must submit the completed Attestations Affidavit (Past Criminal Convictions of Bidders, Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance) form found within this bid package. The Attestations Affidavit form shall be submitted to Coastal Protection and Restoration Authority contact person listed in the Advertisement For Bids within 10 days after the opening of bids.

ARTICLE 8

PERFORMANCE AND PAYMENT BOND

8.1 Bond Required

8.1.1 The Contractor shall furnish and pay for a Performance and Payment Bond written by a company licensed to do business in Louisiana, which shall be signed by the surety's agent or attorney-in-fact, in an amount equal to 100% of the Contract amount. Surety must be listed currently on the U. S. Department of Treasury Financial Management Service List (Treasury List) as approved for an amount equal to or

greater than the contract amount, or must be an insurance company domiciled in Louisiana or owned by Louisiana residents. If surety is qualified other than by listing on the Treasury list, the contract amount may not exceed fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance and may not exceed the amount of \$500,000. However, a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A. M. Best's Key Rating Guide shall not be subject to the \$500,000 limitation, provided that the contract amount does not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide nor fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance. The Bond shall be signed by the surety's agent or attorney-in-fact. The Bond shall be in favor of the Coastal Protection and Restoration Authority.

8.2 Time of Delivery and Form of Bond

8.2.1 The Bidder shall deliver the required bond to the Owner simultaneous with the execution of the Contract.

8.2.2 Bond shall be in the form furnished by the Coastal Protection and Restoration Authority, entitled CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND, a copy of which is included in the Bid Documents.

8.2.3 The Bidder shall require the Attorney-in-Fact who executes the required bond on behalf of the surety to affix thereto a certified and current copy of his power of Attorney.

ARTICLE 9

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 Form to be Used

9.1.1 Form of the Contract to be used shall be furnished by the Coastal Protection and Restoration Authority, an example of which is bound in the Bid Documents.

9.2 Award

9.2.1 Before award of the Contract, the successful

Bidder shall furnish to the Owner a copy of a Disclosure of Ownership Affidavit stamped by the Secretary of State, a certified copy of the minutes of the corporation or partnership meeting which authorized the party executing the bid to sign on behalf of the Contractor.

9.2.2 In accordance with Louisiana Law, when the Contract is awarded, the successful Bidder shall, at the time of the signing of the Contract, execute the

Non-Collusion Affidavit included in the Contract Documents

9.2.3 When this project is financed either partially or entirely with State Bonds, the award of this Contract is contingent upon the sale of bonds by the State Bond Commission. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is duly executed

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: Coastal Protection and Restoration Authority
150 Terrace Avenue
Suite 100
Baton Rouge, LA 70802

(Owner to provide name and address of owner)

BID FOR: Caminada Headland Back Barrier
Marsh Creation Project
(BA-0171)

(Owner to provide name of project and other identifying information)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: CPRA
and dated: December, 2019

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) _____.

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" * but not alternates) the sum of:

_____ Dollars (\$_____)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1: *(Not Applicable)* for the lump sum of:

NOT APPLICABLE Dollars (\$NOT APPLICABLE)

Alternate No. 2: *(Not Applicable)* for the lump sum of:

NOT APPLICABLE Dollars (\$NOT APPLICABLE)

Alternate No. 3: *(Not Applicable)* for the lump sum of:

NOT APPLICABLE Dollars (\$NOT APPLICABLE)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____

DATE: _____

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** **A CORPORATE RESOLUTION OR WRITTEN EVIDENCE** of the authority of the person signing the bid for the public work as prescribed by LA RS. 38:2212(B)(5).

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Coastal Protection and Restoration Authority
150 Terrace Avenue
Suite 100
Baton Rouge, LA 70802

BID FOR: Caminada Headland Back Barrier
Marsh Creation Project
(BA-0171)

(Owner to provide name and address of owner)

(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	Hydraulic Dredge Mobilization and Demobilization (TS-100)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
1	1	Lump Sum		
DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	Dredge Pipeline Mobilization, Installation, and Demobilization (TS-101)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
2	1	Lump Sum		
DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	General Mobilization and Demobilization (TS-102)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
3	1	Lump Sum		
DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	Surveys (TS-210)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
4	1	Lump Sum		
DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	Daily Bird Abatement (TS-211)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
5	226	Day		
DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	Grade Stakes (TS-220)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
6	50	Each		
DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	Instrumented Settlement Plates (TS-251)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
7	17	Each		
DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.#	Earthen Containment Dikes (TS-300)	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
8	50,790	Linear Foot		

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM UNIT PRICE FORM

TO: Coastal Protection and Restoration Authority
150 Terrace Avenue
Suite 100
Baton Rouge, LA 70802

BID FOR: Caminada Headland Back Barrier
Marsh Creation Project
(BA-0171)

(Owner to provide name and address of owner)

(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Priority Earthen Dike (TS-301)</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>1</u> UNIT OF MEASURE: <u>Lump Sum</u>		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Hydraulic Dredging and Marsh Creation (TS-400)</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>2,624,810</u> UNIT OF MEASURE: <u>Cubic Yard</u>		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Not Applicable</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>Not Applicable</u> UNIT OF MEASURE: <u>Not Applicable</u>		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Not Applicable</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>Not Applicable</u> UNIT OF MEASURE: <u>Not Applicable</u>		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Not Applicable</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>Not Applicable</u> UNIT OF MEASURE: <u>Not Applicable</u>		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Not Applicable</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>Not Applicable</u> UNIT OF MEASURE: <u>Not Applicable</u>		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Not Applicable</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>Not Applicable</u> UNIT OF MEASURE: <u>Not Applicable</u>		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>Not Applicable</u>	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
REF. NO.	QUANTITY: <u>Not Applicable</u> UNIT OF MEASURE: <u>Not Applicable</u>		

Wording for "DESCRIPTION" is to be provided by the Owner. All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

BID BOND

FOR

COASTAL PROTECTION AND RESTORATION AUTHORITY PROJECTS

Date: _____

KNOW ALL MEN BY THESE PRESENTS:

That _____ of _____, as Principal, and _____, as Surety, are held and firmly bound unto the State of Louisiana, Coastal Protection and Restoration Authority (Obligee), in the full and just sum of five (5%) percent of the total amount of this proposal, including all alternates, lawful money of the United States, for payment of which sum, well and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Surety represents that it is listed on the current U. S. Department of the Treasury Financial Management Service list of approved bonding companies as approved for an amount equal to or greater that the amount for which it obligates itself in this instrument or that it is a Louisiana domiciled insurance company with at least an A - rating in the latest printing of the A. M. Best's Key Rating Guide. If surety qualifies by virtue of its Best's listing, the Bond amount may not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide.

Surety further represents that it is licensed to do business in the State of Louisiana and that this Bond is signed by surety's agent or attorney-in-fact. This Bid Bond is accompanied by appropriate power of attorney.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas said Principal is herewith submitting its proposal to the Obligee on a Contract for:

NOW, THEREFORE, if the said Contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the Contract in writing and give a good and sufficient bond to secure the performance of the terms and conditions of the Contract with surety acceptable to the Obligee, then this obligation shall be void; otherwise this obligation shall become due and payable.

PRINCIPAL (BIDDER)

SURETY

BY: _____
AUTHORIZED OFFICER-OWNER-PARTNER

BY: _____
AGENT OR ATTORNEY-IN-FACT(SEAL)

Name of Project

STATE OF LOUISIANA

PARISH OF LAFOURCHE AND JEFFERSON

ATTESTATIONS AFFIDAVIT

Before me, the undersigned notary public, duly commissioned and qualified in and for the parish and state aforesaid, personally came and appeared Affiant, who after being duly sworn, attested as follows:

LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14:120)
- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:23)

B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67.16)
- (c) Theft of a business record (R.S.14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Issuing worthless checks (R.S. 14:71)
- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Contractors; misapplication of payments (R.S. 14:202)
- (i) Malfeasance in office (R.S. 14:134)

LA. R.S. 38:2212.10 Verification of Employees

- A. At the time of bidding, Appearer is registered and participates in a status verification system to verify that all new hires in the state of Louisiana are legal citizens of the United States or are legal aliens.
- B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.
- C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

Name of Project

Project No.

L.A. R.S. 23:1726(B) Certification Regarding Unpaid Workers Compensation Insurance

- A. R.S. 23:1726 prohibits any entity against whom an assessment under Part X of Chapter 11 of Title 23 of the Louisiana Revised Statutes of 1950 (Alternative Collection Procedures & Assessments) is in effect, and whose right to appeal that assessment is exhausted, from submitting a bid or proposal for or obtaining any contract pursuant to Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950 and Chapters 16 and 17 of Title 39 of the Louisiana Revised Statutes of 1950.
- B. By signing this bid /proposal, Affiant certifies that no such assessment is in effect against the bidding / proposing entity.

NAME OF BIDDER

NAME OF AUTHORIZED SIGNATORY OF BIDDER

DATE

TITLE OF AUTHORIZED SIGNATORY OF BIDDER

**SIGNATURE OF AUTHORIZED
SIGNATORY OF BIDDER/AFFIANT**

Sworn to and subscribed before me by Affiant on the ____ day of _____, 20__.

Notary Public

FOR INFORMATION ONLY

This document will be prepared by the Coastal Protection and Restoration Authority in the form appropriate for the project.

**CONTRACT BETWEEN OWNER AND CONTRACTOR
AND PERFORMANCE AND PAYMENT BOND**

This agreement entered into this _____ day of _____, 2019, by (CONTRACTOR NAME) hereinafter called the "Contractor", whose business address is _____, and the State of Louisiana Coastal Protection and Restoration Authority, herein represented by its Executive Director executing this contract, and hereinafter called the "Owner".

Witnesseth that the Contractor and the Owner, in consideration of premises and the mutual covenants; consideration and agreement herein contained, agree as follows:

Statement of Work: The contractor shall furnish all labor and materials and perform all of the work required to build, construct and complete in a thorough and workmanlike manner:

Project No. _____
State ID No. _____ Site Code _____

in strict accordance with Contract Documents prepared by Owner.

It is recognized by the parties herein that said Contract Documents, including by way of example and not of limitation, the Plans, Specifications (including General Provisions, Special Provisions, and Technical Specifications), Any Addenda thereto, Instructions To Bidders, this Contract, Advertisement For Bids, Affidavit, Bid Form, Bonds (Bid, Performance, and Payment), any Submitted Post-Bid Documentation, Notice of Award, Notice to Proceed, Change Orders, and Claims, if any, impose duties and obligations upon the parties herein, and said parties thereby agree that they shall be bound by said duties and obligations. For these purposes, all of the provisions contained in the aforementioned Contract Documents are incorporated herein by reference with the same force and effect as though said Contract Documents were herein set out in full.

Time for Completion: The work shall be commenced on a date to be specified in a written order of the Owner and shall be completed within _____ consecutive calendar days from and after the said date.

Liquidated Damages: Contractor shall be assessed Liquidated Damages in the amount of \$ _____ per day for each consecutive calendar day which work is not complete beginning with the first day beyond the completion time.

Compensation to be paid to the Contractor: The Owner will pay and the Contractor will accept in full consideration for the performance of the contract the sum of _____ **Dollars (\$)** which sum represents the Contract Price.

Performance and Payment Bond: To these presents personally came and intervened _____, herein acting for _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business in the State of Louisiana, as surety, who declared that having taken cognizance of this contract and of the Construction Documents mentioned herein, he hereby in his capacity as its Attorney in Fact obligates his said company, as Surety for the said Contractor, unto the said Owner, up to the sum of _____ **Dollars** **(\$)**. By issuance of this bond, the surety acknowledges they are in compliance with R.S. 38:2219.

The condition of this performance and payment bond shall be that should the Contractor herein not perform the contract in accordance with the terms and conditions hereof, or should said Contractor not fully indemnify and save harmless the Owner, from all cost and damages which he may suffer by said Contractor's non-performance or should said Contractor not pay all persons who have and fulfill obligations to perform labor and/or furnish materials in the prosecution of the work provided for herein, including by way of example workmen, laborers, mechanics, and furnishers of materials, machinery, equipment and fixtures, then said Surety agrees and is bound to so perform the contract and make said payment(s).

Provided, that any alterations which may be made in the terms of the contract or in the work to be done under it, or the giving by the Owner of any extensions of time for the performance of the contract, or any other forbearance on the part of either the Owner or the Contractor to the other shall not in any way release the Contractor or the Surety from their liability hereunder, notice to the Surety of any such alterations, extensions or other forbearance being hereby waived.

The Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Act of 1972, and contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Contractor agrees not to discriminate in its employment practices, and will render services under this contract without regard to race, color, sex, religion, national origin, genetic information, age or disabilities. Any act of discrimination committed by Contractor or failure to comply with these statutory obligations when applicable shall be grounds for termination of this contract.

In Witness whereof, the parties hereto on the day and year first above written have executed this agreement in eight (8) counterparts, each of which shall, without proof or accountancy for the other counterparts, be deemed an original thereof.

WITNESSES:

**STATE OF LOUISIANA
COASTAL PROTECTION AND
RESTORATION AUTHORITY**

BY: _____
Lawrence B. Haase, Executive Director

BY: _____

SURETY: _____

BY: _____
ATTORNEY IN FACT

ADDRESS

TELEPHONE NUMBER

STATE OF LOUISIANA
PARISHES OF LAFOURCHE AND JEFFERSON

PROJECT NO.: BA-0171

NAME: CAMINADA HEADLAND BACK BARRIER MARSH
CREATION PROJECT

LOCATION: PORT FOURCHON, LA

AFFIDAVIT

Before me, the undersigned authority, duly commissioned and qualified within and for the State and Parish aforesaid, personally came and appeared _____ representing who, being by me first duly sworn deposed and said that he has read this affidavit and does hereby agree under oath to comply with all provisions herein as follows:

PART I.

Section 2224 of Part II of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

(1) That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the Contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the Contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.

PART II.

Section 2190 of Part I of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

That affiant, if an architect or engineer, or representative thereof, does not own a substantial financial interest, either directly or indirectly, in any corporation, firm, partnership, or other organization which supplies materials for the construction of a public work when the architect or engineer has performed architectural or engineering services, either directly or indirectly, in connection with the public work for which the materials are being supplied.

For the purposes of this Section, a "substantial financial interest" shall exclude any interest in stock being traded on the American Stock Exchange or the New York Stock Exchange.

That affiant, if subject to the provisions of this section, does hereby agree to be subject to the penalties involved for the violation of this section.

AFFIANT

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF _____, 2019.

NOTARY

PART I GENERAL PROVISIONS

GP-1 DEFINITION OF TERMS

Whenever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to the singular or plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs and the titles of other documents or forms.

Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

- a) Acceptance: A written approval from the Engineer which certifies that specific items of work in the Contract have been completed and/or obligations have been fulfilled by the Contractor.
- b) Addenda: Those written or graphic documents which are issued prior to opening of Bids in accordance with the Bidding Requirements and clarify or change the bidding requirements or the proposed Contract Documents.
- c) Application of Payment: That form which is used by the Contractor to request partial and final payment and is deemed acceptable to the Owner. It shall be accompanied by any supporting documentation required by the Contract Documents.
- d) A.S.T.M.: American Society for Testing and Materials.
- e) Bid: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.
- f) Bidder: The person, association of persons, firm, or corporation submitting a proposal for the Work.
- g) Bidding Requirements: The Advertisement for Bids, Instructions to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.
- h) Change Order: A written order which is submitted to the Contractor, signed by the Owner, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the contract price or the contract time issued after the effective date of the Contract.
- i) Claim: A written demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both or other relief with respect to the terms of the Contract.
- j) Contract: The written agreement between the Owner and the Contractor which defines the work to be completed and shall be understood to also include all Contract Documents.

- k) Contract Documents: The Contract, all addenda which pertains to the Contract Documents, Bid Documents and specified Attachments accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award, Contractor's Bid when attached as an exhibit to the Agreement, the Bonds (Bid and Performance/Payment), General Provisions, Special Provisions, Technical Specifications, Plans, and all Field or Change Orders issued after the execution of the Agreement. Shop Drawings and other submittals by the Contractor are not Contract Documents.
- l) Contract Price: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Contract.
- m) Contract Time: The number of calendar days specified in the Contract for completion of the Work, together with any extensions authorized through change orders.
- n) Contractor: The person, association of persons, firm, or corporation entering into the duly awarded Contract.
- o) Contracting Agency: The State of Louisiana, Coastal Protection and Restoration Authority (CPRA).
- p) Day: When any period of time is referred to in the Contract Documents using days, it will be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday, Sunday, or a legal holiday, that day will be omitted from the computation. A calendar day is measured as twenty-four (24) hour period starting at midnight and ending the following midnight.
- q) Design Report: A written report by the Engineer which provides the design methodology for the Work.
- r) Effective Date of the Contract: The date indicated in the Contract on which it becomes effective.
- s) Engineer: The State of Louisiana, Coastal Protection and Restoration Authority, or its designee.
- t) Equipment: All machinery, implements, and power-tools, in conjunction with the necessary supplies for the operation, upkeep, maintenance, and all other tools and apparatuses necessary for the proper construction and acceptable completion of the Work.
- u) Extension of Contract: Any extension of time for completion of Work beyond the Contract Time which is granted by the Owner, recommended by the Engineer and approved by the Coastal Protection and Restoration Authority in the form of a Change Order.
- v) Federal Sponsor: The federal agency which has been tasked, if applicable, to manage the implementation of the project.
- w) Field Order: A written order issued by the Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or Contract Time.

- x) Laboratory: The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.
- y) Laws and Regulations; Laws or Regulations: Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- z) Materials: Any substance used in the Work to build structures, but does not include material used in false work or other temporary structures not incorporated in the Work.
- aa) Milestone: A principal event specified in the Contract Documents relating to an intermediated completion date or time prior to the Contract Times.
- bb) Notice of Award: A written notice to the successful Bidder stating that the Bid has been accepted by the Owner and that the successful Bidder is required to execute the Contract and furnish the Payment and Performance Bond and Non-Collusion Affidavit.
- cc) Notice to Proceed: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.
- dd) Owner: The Owner is the State of Louisiana (State) which acts through the Contracting Agency.
- ee) Performance and Payment Bond: The approved form of security furnished by the Contractor and Surety for the faithful performance of the Work, and the payment for all labor, materials, and/or obligations incurred by the Contractor in the prosecution thereof.
- ff) Plans: That part of the Contract Documents prepared or approved by the Engineer which graphically shows the scope, intent, and character of the Work to be completed by the Contractor.
- gg) Project Site: The location where the Work is to be performed as stated in the Contract Documents.
- hh) Resident Project Representative: An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.
- ii) Right-of-way: That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.
- jj) Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portions of the Work will be judged.
- kk) Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work to be performed.

- ll) Specifications: That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the work to be performed and certain administrative details applicable thereto.
- mm) State: The State of Louisiana.
- nn) Structures: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.
- oo) Subcontractor: Any person, association of persons, firm, or corporation who contracts with the Contractor to perform any part of the project covered by the Contract.
- pp) Submittals: Certificates, samples, shop drawings, and all other project data which are submitted to the Engineer in order to verify that the correct products will be installed on the project.
- qq) Successful Bidder: The lowest responsive and responsible Bidder whom the Owner makes an award.
- rr) Special Provisions: That part of the Contract Documents which amends or supplements these General Provisions.
- ss) Surety: The corporate body, licensed to do business in Louisiana, bound with and for the Contractor's primary liability, and engages to be responsible for payment of all obligations pertaining to acceptable performance of the Work contracted.
- tt) Temporary Structures: Any non-permanent structure required while engaged in the prosecution of the Contract.
- uu) Work: All work specified herein or indicated on the Plans.
- vv) Work Plan: A written plan by the Contractor that details how the Work will be provided including layout drawings, projected schedule (Initial Progress Schedule), and a list of labor hours, materials, and equipment.

GP-2 BID REQUIREMENTS

The Contract and Bonds which govern the Work shall be performed in accordance with the Plans, Specifications, and the Louisiana Standard Specifications for Roads and Bridges, 2016 edition. The Bidder understands that all quantities for performing the Work have been estimated by the Engineer, and that the Bid shall be the sum of the quantities multiplied by their respective unit rates. The Contract shall be awarded by the Owner through a comparison of all bids. It is the responsibility of each Bidder before submitting a Bid to:

- 2.1. Examine the Bidding Documents including the Plans and Specifications and any Addenda or related data identified in the Bidding Documents;
- 2.2. Visit the Project Site to become familiar with the local conditions if they are believed to affect cost, progress, or the completion of the Work;

- 2.3. Become familiar and satisfied with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of the Work;
- 2.4. Study and correlate all information known to the Bidder including observations obtained from Bidder's visits, if any, to the Project Site, with the Bidding Documents;
- 2.5. Submit a written notice to the Engineer within three (3) days regarding any conflicts, errors, ambiguities, or discrepancies discovered in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidder; and
- 2.6. Determine that the Bidding Documents are generally sufficient to convey an understanding of all terms and conditions for completing the required Work.

The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of these Specifications. The Bidder shall comply with all other requirements specified in the Advertisement For Bids and the Instruction To Bidders.

GP-3 AVAILABILITY OF PLANS AND SPECIFICATIONS

One (1) set of Plans and Specifications shall be furnished to each Bidder. Three (3) sets of the Plans and Specifications shall be furnished to the Contractor upon award of the Contract. Additional sets may be furnished to the Contractor upon request from the Engineering Division of the Coastal Protection and Restoration Authority, 150 Terrace Avenue, Baton Rouge, Louisiana 70802.

GP-4 LAWS, REGULATIONS, STANDARDS, SPECIFICATIONS, AND CODES

Bidders are required to become familiar and remain in compliance with all Federal, State, and local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority which may affect those employed for the execution of the Work or which may affect the conduct of the Work. The Contractor shall indemnify the Owner and its representatives against any claim or liability arising from all violations of any laws, bylaws, ordinances, codes, regulations, orders, or decrees, whether by the Contractor or by the Contractor's employees. The filing of a bid will be presumptive evidence that the Bidder has complied with this requirement. The Owner will not be responsible for any inaccurate interpretations or conclusions drawn by the Contractor from information and documentation provided by the Owner.

References to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws and Regulations, whether such reference be specific or by implication, may not be in effect at the time of opening the Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents. No provision of any such standard, specification, manual, or code, or any instruction of a supplier shall be effective to change the duties or responsibilities of the Owner or Engineer, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Bid Documents. No such provision shall be effective to assign to the Owner or Engineer, or any of their consultants, agents, or employees any duty or authority to supervise or direct the performance of the Contractor's obligations or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

The obligations imposed by these specifications are in addition to and are not to be construed in any way as a limitation of any rights available to the Engineer or Owner which are otherwise imposed by any laws or regulations or other provisions within the Contract Documents.

The Contractor shall abide by laws set forth in the Davis-Bacon Act of 1931 which states that all laborers and mechanics employed by recipients, the recipient's contractors, or subcontractors on this project shall be paid wages at rates no less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with Subchapter IV of Chapter 31 of Title 40 United States Code. Additionally, with respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Number 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and The Copeland Act of Title 40 (40 U.S.C. § 3145). Prevailing Wage Determination Schedules, as determined by the United States Department of Labor, are provided in the Appendix. Prevailing Wage Determination Schedules are subject to modification by the United States Department of Labor. The Contractor is responsible for utilizing the most current Prevailing Wage Determination Schedule. These documents can be downloaded from the following link: <http://www.wdol.gov/dba.aspx#3>. Modifications to Prevailing Wage Determination Schedules shall be effective if received (or posted) no less than 10 days prior to bid opening.

GP-5 PRE-BID CONFERENCE AND SITE VISIT

A Pre-Bid Conference will be held at the location and on the date provided in the Advertisement For Bids. If the Pre-Bid Conference is stated in the Advertisement for Bids to be a MANDATORY Pre-Bid Conference, bids shall be accepted only from those bidders who attend the Pre-Bid Conference in its entirety. Failure to attend a mandatory Pre-Bid Conference in its entirety will result in a null or void Bid.

A site visit may also be held at the Project Site as specified in the Advertisement For Bids or at the Pre-Bid conference. If held, bidders will be required to furnish their own transportation to the Project Site. Representatives of the Owner and Engineer will attend the Pre-Bid conference and site visit, if held, to discuss the Work.

All questions shall be in writing and faxed or emailed to the Coastal Protection and Restoration contact person listed in the Advertisement For Bids after the Pre-Bid Conference and by the due date announced at the Pre-Bid conference. In order to ensure adequate response time, all questions and/or requests for clarification or interpretation of the Bid Documents should be received by the Coastal Protection and Restoration Authority at least seven days prior to the date for receipt of bids. Oral statements will not be binding or legally effective. The Coastal Protection and Restoration Authority will issue addenda in response to all questions arising at the Pre-Bid Conference and site visit to all prospective Bidders on record. All prospective Bidders on record may contact the Coastal Protection and Restoration Authority contact person for any additional information.

GP-6 NOTICE OF AWARD

The Owner, or its designated bidding agent, shall provide written notice to the Successful Bidder stating that the Owner will sign and deliver the Contract upon compliance with the conditions enumerated therein and within the time specified.

GP-7 NOTICE TO PROCEED AND CONTRACT TIME

The Contractor shall start the Work and begin the Contract Time on the dates provided in the Notice to Proceed. The Work shall be conducted using sufficient labor, materials, and equipment as necessary to ensure completion within the Contract Time. The Contract Time for completion of the Base Bid for the Work is provided in the Instructions To Bidders, unless an extension is granted to the Contract Time as specified in GP-44. If the Bid contains an Alternate Bid(s), and the Alternate Bid(s) is awarded and included in the Contract, the Contract Time associated with the Alternate Bid(s) will be as provided in the Instruction to Bidders.

Unless otherwise noted in the Contract Documents, Contract Time will be on a calendar day basis. Contract Time shall consist of the number of calendar days stated in the Instructions to Bidders and the Contract beginning with the date noted in the written Notice to Proceed, including Saturdays, Sundays, holidays and non-work days.

The following table defines the monthly anticipated adverse weather days that are expected to occur during the Contract Time and will constitute the baseline monthly weather time for evaluations. The schedule is based upon National Oceanic and Atmospheric Administration (NOAA) or similar data for the regional geographic area.

Monthly Anticipated Adverse Weather Calendar Days											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
5	5	4	4	4	5	7	7	5	3	3	4

Adverse weather days must prevent Work for fifty percent (50%) or more of the work day and delay work critical to the timely completion of the project. The number of actual adverse weather days shall be calculated chronologically from the first to the last day of each month.

If adverse weather conditions are the basis for a claim for additional time, the Contractor shall document that weather conditions had an adverse effect on the scheduled construction. An increase in Contract Time due to weather shall not be cause for an increase in the contract sum.

GP-8 WORK PLAN

The Contractor shall develop a written Work Plan which accounts for all of the construction activities required by the Contract Documents. The Work Plan shall include a list of the individual construction tasks to be completed and the estimated dates for beginning and completing the tasks. It shall also include all other items which are applicable to completing the Work such as, but not limited to, the following:

- a) Typical report form for the Bi-Weekly Progress Meeting;
- b) Typical form for Daily Progress Report;
- c) Hurricane and Severe Storm Plan;
- d) Site-specific Health and Safety Plan;

- e) The delivery method and source(s) of all construction materials (company or producer name, mailing and physical address, phone number, and name of contact person).
- f) The personnel, material, subcontractors, fabricators, suppliers, types of equipment, and equipment staging areas the Contractor proposes to use for construction;
- g) Shop drawings, test results, and sample submittals;
- h) Survey layout and stakeout;
- i) All supplemental items specified in the Special Provisions.

The Work Plan shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the Special Provisions. The Engineer shall review the Work Plan and have the Contractor make any necessary revisions prior to acceptance of the plan. **No payment for mobilization will be made until the Work Plan has been accepted by the Engineer.**

GP-9 PROGRESS SCHEDULE

The Contractor shall develop a written Progress Schedule which provides for an orderly progression of the Work, submittals, tests, and deliveries in order to complete the Work within the specified Milestones and Contract Time. All of the items listed in the Work Plan shall be integrated into the Progress Schedule. The format of the schedule shall be composed using Microsoft Project®, or any other software deemed acceptable by the Engineer. It shall be updated weekly by the Contractor, at a minimum. The Progress Schedule shall also include, but not be limited to the following:

- a) All of the elements in the Work Plan, including updates;
- b) A work order issued from Louisiana One Call ordering all their subscribers in the project area to mark their utilities;
- c) A telephone log verifying that all property owners and utilities have been contacted. This log should list the time, date, and names of the personnel representing the property owners, utilities, and Contractor;

The Progress schedule must reflect these anticipated adverse weather delays on all weather dependent activities.

The Progress Schedule shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the Special Provisions. The Engineer shall perform a review and have the Contractor make any necessary revisions prior to acceptance of the schedule. Acceptance will not impose responsibility on the Owner or Engineer for the sequencing, scheduling, or progression of the Work. The Contractor is fully responsible for progression of the Work in order to maintain the compliance with the Progress Schedule.

GP-10 DAILY PROGRESS REPORTS

The Contractor shall record the following daily information on Daily Progress Reports:

- a) Date and signature of the author of the report;
- b) Dollar amount of all bid items that are fabricated, installed, backfilled, pumped, constructed, damaged, replaced, etc. The amount of material shall be expressed in the units stated in the bid;
- c) Field notes of all surveys;
- d) Notes on all inspections;
- e) Details of Health and Safety meetings;
- f) A brief description of any Change Orders, Field Orders, Claims, Clarifications, or Amendments;
- g) Condition of all navigation aides (I.E., warning signs, lighted marker buoys) and any repairs performed on them;
- h) Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);
- i) The amount of time lost to severe weather or personnel injury, etc;
- j) Notes regarding compliance with the Progress Schedule;
- k) Visitor log (Instructions for format will be furnished by the Field Engineer).

The daily progress reports shall be submitted to the Engineer at the Bi-Weekly Progress Meetings specified in GP-13 in both hard copy and digital format (Adobe Acrobat® Format, or approved equal). The typical form for Daily Progress Reports shall be developed by the Contractor and incorporated into the Work Plan.

GP-11 HURRICANE AND SEVERE STORM PLAN

The Contractor shall develop and maintain a written Hurricane and Severe Storm Plan. The Plan shall include, but not be limited to, the following:

- a) What type of actions will be taken before storm strikes at the Project Site. The plan should specify what weather conditions or wave heights will require shut down of the Work and removal of equipment, personnel, etc.
- b) Notes from continuous monitoring of NOAA marine weather broadcasts and other local commercial weather forecasts.
- c) Equipment list with details on their ability to handle adverse weather and wave conditions.
- d) List of safe harbors or ports and the distance and travel time required to transfer equipment from the Project Site.

- e) Hard copies of any written approvals or operations schedules associated with the use of the safe harbors or ports.
- f) Method of securing equipment at the safe harbors or ports.
- g) List of tug boats and work boats and their respective length, horsepower, etc. which will adequately transfer the equipment to safe harbor or port under adverse weather conditions.
- h) Methods which will be used to secure equipment left onsite during adverse weather conditions.
- i) Evacuation or immediate reaction plans to be taken by personnel for sudden storm occurrences.
- j) Operations procedures which will be used to secure critical dredging equipment such as spuds, swing wires, anchor wires, or tugs during adverse weather conditions.
- k) Communications protocol with local law enforcement and fire and rescue agencies.

The Contractor shall incorporate the Hurricane and Severe Storm Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.

GP-12 HEALTH AND SAFETY PLAN AND INSPECTIONS

The Contractor shall develop and maintain a written Health and Safety Plan which allows the Work to be performed in compliance with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the safety of personnel or property. This includes maintaining compliance with the Code of Federal Regulations, Title 29, Occupational Safety and Health Administration (OSHA) and all applicable Health and Safety Provisions of the State of Louisiana.

The Contractor shall institute a daily inspection program to assure that the requirements of the Health and Safety Plan are being fulfilled. Inspections shall include the nature of deficiencies observed, corrective action taken or to be taken, location of inspection, date, and signature of the person responsible for its contents. The results of the inspections shall be recorded on Daily Progress Reports and kept at the Project Site during the Work.

The Contractor shall incorporate the Health and Safety Plan into the Work Plan. The Owner and Engineer are not responsible for the adequacy of this plan.

GP-13 PROGRESS MEETINGS AND REPORTS

The Engineer shall schedule meetings to review the progress of the Work, coordinate future efforts, discuss compliance with the Progress Schedule and resolve miscellaneous problems. The Engineer or Resident Project Representative, Contractor, and all Subcontractors actively working at the Project Site shall attend each meeting. Representatives of suppliers, manufacturers, and other Subcontractors may also attend at the discretion of the Contractor. The Contractor shall record the details of each meeting in a Progress Report. The format of this report shall be developed by the Contractor, approved by the Engineer, and included in the Work Plan. The progress meetings and reports shall be scheduled according to the Special Provisions.

GP-14 PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference shall be held by the Contractor, Owner, Engineer, local stakeholders, and other appropriate personnel prior to starting construction on the date specified in the Special Provisions. This conference shall serve to establish a mutual understanding of the Work to be performed, the elements of the Progress Schedule and Work Plan, expectations for bi-weekly progress meetings, the Plans and Specifications, processing Applications for Payment, and any other items of concern. If any subcontractors are not present, another pre-construction conference will be required.

GP-15 CONTRACT INTENT

The Bid Documents are complementary; what is called for by one is as binding as if called for by all. Clarifications and interpretations or notifications of minor variations and deviations of the Contract Documents will be issued by Engineer as provided in these Specifications. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Bid Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided at no additional cost to the Owner.

GP-16 ENGINEER AND AUTHORITY OF ENGINEER

The Engineer will be the designated representative of the Owner, the initial interpreter of the Contract Documents and the judge over acceptability of all the Work. Claims, disputes, and other matters relating to the acceptability of the Work, performance by the Contractor or the interpretation of the requirements of the Contract Documents must be submitted to the Engineer in writing. Upon written request from the Contractor, the Engineer shall issue written clarifications or interpretations which are consistent with the overall intent of the Contract Documents. Such written clarifications and interpretations will be binding on the Owner and the Contractor. Either the Owner or the Contractor may make a Claim if a written clarification or interpretation justifies an adjustment in the Contract Price or Contract Times.

The Engineer has the authority to suspend the Work in whole or in part due to failure of the Contractor to correct conditions unsafe for workmen or the general public, carry out provisions of the Contract, perform conformance work, or to carry out orders. The Engineer shall submit a written order to the Contractor for work which must be suspended or resumed. Nothing in this provision shall be construed as establishing responsibility on the part of the Engineer for safety which is the responsibility of the Contractor.

The Engineer or Resident Project Representative shall keep a daily record of weather and flood conditions and may suspend the Work as deemed necessary due to periods of unsuitable weather, conditions considered unsuitable for execution of the Work, or for any other condition or reason deemed to be in the public interest.

GP-17 CONFORMITY WITH PLANS AND SPECIFICATIONS

All work and materials involved with the Work shall conform with the lines, grades, cross sections, dimensions, and other requirements shown on the Plans or indicated in these Specifications unless otherwise approved by the Engineer.

GP-18 CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS

The Contract Documents may be clarified or amended by the Engineer to account for additions, deletions, and revisions to the Work after the Effective Date of the Contract. The clarifications and amendments shall be addressed by either a Change Order or a written clarification by the Engineer. The Contractor shall not proceed with the Work until the Change Order or clarification has been issued by the Engineer. The Contractor shall not be liable to the Owner or Engineer for failure to report any such discrepancy unless the Contractor had reasonable knowledge.

The Contractor may request a clarification or amendment for the following:

- a) Any conflict, error, ambiguity, or discrepancy within the Contract Documents; or
- b) Any conflict, error, ambiguity, or discrepancy between the Bid Documents and the provision of any Law or Regulation applicable to the performance of the Bid; or
- c) Any standard, specification, manual, or code (whether or not specifically incorporated by reference in the Bid Documents); or
- d) Instructions by a supplier.

The official form for a written clarification is provided in the appendices of the Contract Documents. This form shall be filled out appropriately by the Contractor and submitted to the Engineer. The Engineer shall clarify the issue in writing on either the clarification form, Field Order or a Change Order and submit it to the Contractor.

GP-19 SUBCONTRACTS

The Contractor shall provide the names of all Subcontractors to the Engineer in writing before awarding any Subcontracts. The Contractor shall be responsible for the coordination of the trades and Subcontractors engaged in the Work. The Contractor is fully responsible to the Owner for the acts and omissions of all the Subcontractors. The Owner and Engineer will not settle any differences between the Contractor and Subcontractors or between Subcontractors. The Contractor shall have appropriate provisions in all Subcontracts to bind Subcontractors to the Contractor by the terms of the General Provisions and other Contract Documents, as applicable to the Work of Subcontractors. The provisions should provide the Contractor the same power regarding termination of Subcontracts that the Owner may exercise over the Contractor under any provisions of the Contract Documents.

GP-20 WORKERS, METHODS, AND EQUIPMENT

The Contractor shall provide competent, qualified, and trained personnel to perform the Work. The Contractor shall not employ any person found objectionable by the Engineer. Any person employed by the Contractor or any Subcontractor who, in the opinion of the Engineer, does not perform the Work in a proper, skillful, and orderly manner shall be immediately removed upon receiving a written order by the Engineer. The Engineer may also suspend the Work until the Contractor removes the employee or provides a suitable replacement. Such an employee shall not be re-employed in any portion of the Work without written approval from the Engineer.

The on-site superintendent for the Contractor shall be competent, English-speaking, and qualified to receive orders, supervise, and coordinate all Work for the Contractor and any Subcontractors. The qualifications of the superintendent must be established and approved by the Engineer prior to commencement of the Work. The superintendent shall be furnished by the Contractor regardless of how much Work may be sublet. In the performance of the Work under this Contract, the Contractor shall conduct operations to avoid interference with any other Contractors.

All equipment, products, and material incorporated into the Work shall be as specified, or if not specified, shall be new, of good quality, and protected, assembled, used, connected, applied, cleaned, and conditioned in accordance with the manufacturer's instructions, except as otherwise may be provided in the Bid Documents. All equipment shall be of sufficient size and mechanical condition to meet the requirements of the Work and produce a satisfactory quality of work. Equipment shall not damage adjacent property throughout the performance of the Work. The Plant and Equipment Schedule should be completed by the Contractor.

The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures used to complete the Work in conformance with the Contract Documents.

The Contractor shall obtain permission from the Engineer if a method or type of equipment other than specified in the Contract is desired. The request shall be in writing and shall include a full description of the methods, equipment proposed, and reasons for the modification. A proposed item of material or equipment may be considered by the Engineer to be functionally equal to an item specified in the Contract if:

- a) It is at least equal in quality, durability, appearance, strength, and design characteristics;
- b) There is no increase in any cost including capital, installation, or operating to the Owner;
- c) The proposed item will conform substantially, even with deviations, to the detailed requirements of the item named in the Bid Documents.

If, after trial use of the substituted methods or equipment, the Engineer determines that the Work produced does not meet Contract requirements, the Contractor shall discontinue use of the substituted methods or equipment and shall complete the Work with the specified methods and equipment. The Contractor shall remove the deficient Work and replace it with Work of specified quality or take other corrective action as directed. No change will be made in basis of payment for construction items involved or in Contract Time as a result of authorizing a change in methods or equipment.

GP-21 ACCIDENT PREVENTION, INVESTIGATIONS, AND REPORTING

The Contractor shall be responsible to develop and maintain all safeguards and safety precautions necessary to prevent damage, injury, or loss throughout the performance of the Work. All accidents at the Project Site shall be investigated by the immediate supervisor of employee(s) involved and reported to the Engineer or Resident Project Representative within one (1) working day. A complete and accurate written report of the accident including estimated lost time days shall be submitted to the Engineer within four (4) calendar days. A follow-up report shall be submitted to the Engineer if the estimated lost time days differ from the actual lost time days.

GP-22 PRESERVATION AND RESTORATION OF PROPERTY, MONUMENTS, ETC.

The Contractor shall comply with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the preservation and protection of public and private property. The Contractor shall install and maintain suitable safeguards and safety precautions during the Work as necessary to prevent damage, injury, or loss to property. This responsibility shall remain with the Contractor until the Work has been completed and accepted. Any damage, injury, or loss to property which is caused by the Contractor or Subcontractors shall be repaired or replaced at the expense of the Contractor.

The Contractor shall protect all land monuments, State and United States bench marks, geodetic and geological survey monuments, and property markers from disturbance or damage until an authorized agent has witnessed or otherwise referenced their location. The Contractor shall also provide protection for all public and private property including trees, utilities, pipes, conduits, structures, etc. These items shall not be removed unless directed by the Engineer.

The Contractor shall be responsible to completely repair all damages to public or private property due to any act, omission, neglect, or misconduct in the execution of the Work unless it is due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, public enemies, or governmental authorities. The damage must be repaired at the expense of the Contractor before final acceptance of the Work can be granted by the Engineer. If the Contractor fails to repair the damage within forty-eight (48) hours, the Owner may independently proceed with the repairs at the expense of the Contractor by deducting the cost from the Contract. If the Contractor cannot provide for the cost of repairs, the Surety of the Contractor shall be held until all damages, suits, or claims have been settled.

GP-23 PROTECTION OF THE WORK, MATERIALS, AND EQUIPMENT

It shall be the responsibility of the Contractor to protect the Work, materials, and equipment from damages or delays due to inflows, tidal rise, and storm water runoff which may occur at the Project Site. The Owner shall not be held liable or responsible for these types of delays or damages.

GP-24 LAND RIGHTS

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from public and private landowners in order to perform the Work. A land rights memorandum which lists all known responsible contacts and required stipulations is provided in the appendices of the Contract Documents. The Contractor is responsible to notify all of the contacts and abide by stipulations listed in that memorandum.

GP-25 UTILITIES

The Owner has been granted all of the temporary easements, servitudes, and right-of-way agreements from known public and private utilities in order to perform the Work. The utilities include, but are not limited to telephone, telegraph, power poles or lines, water or fire hydrants, water or gas mains and pipelines, sewers, conduits, and other accessories or appurtenances of a similar nature which are fixed or controlled by a city, public utility company or corporation.

The Contractor shall conduct the Work in such a manner as to cooperate and minimize inconveniences with utilities. Prior to commencement of the Work, the Contractor is responsible to notify all of the utilities and abide by stipulations required by the utility company(s). The Contractor shall also call Louisiana One Call at 1-800-272-3020 a minimum of 5 working days prior to construction to locate existing utilities at the Project Site.

Any damage to utilities that is caused by the Contractor within the Project Site shall be repaired at the expense of the Contractor. The Owner will not be responsible for any delay or damage incurred by the Contractor due to working around or joining the Work to utilities left in place or for making adjustments.

Any unidentified pipes or structures which may be discovered within the limits of the Project Site shall not be disturbed and shall be reported to the Engineer as soon as possible. Construction or excavation shall not be performed around unidentified utilities without prior approval from the Engineer.

GP-26 PERMITS

Federal and State permits that are required to perform the Work, such as the Department of the Army Permit, Coastal Use Permit, LDEQ Clean Water Permit, and LDWF Fill Material License have been secured by the Owner. Permit conditions affecting the construction processes have been included in these Specifications. Copies of these permits will be provided to the Contractor at the pre-construction conference. These permits will not relieve the responsibility of the Contractor from obtaining any additional permits which may be needed to complete the Work. Copies of any special permits that are obtained by the Contractor must be submitted to the Owner. The Contractor shall conform to the requirements therein and display copies of the permits in a public setting at the Project Site at all times.

GP-27 PROJECT SITE CLEAN-UP

The Contractor shall keep the Project Site free from accumulations of waste material or trash at all times. All trash and waste materials shall be removed by the Contractor and disposed off-site in an approved waste disposal facility. In addition, all equipment, tools, and non-conforming work shall also be removed prior to the Work being accepted. No materials shall be placed outside of the Project Site.

GP-28 OWNER INSPECTION

The Owner, Resident Project Representative, and Federal Sponsor shall have the right to perform reasonable inspections and testing of the Work at the Project Site. Access shall be granted to the entire Project Site including all materials intended for use in the Work. The Contractor shall allow reasonable time for these inspections and tests to be performed. The inspections shall not relieve the Contractor from any obligation in accordance with the requirements of the Contract.

The Owner shall notify the Contractor prior to all tests, inspections, and approvals of the Work which are to be conducted at the Project Site. The Owner shall also provide the Contractor with the written results of all inspections and tests. Inspections, tests, or Payments made by the Owner shall not constitute acceptance of non-conforming Work of prejudice the Owner's rights under the Contract.

GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE

A Resident Project Representative shall be assigned by the Engineer to the Project Site to observe the Contractor and monitor the progress and manner in which the Work is being performed. The Resident Project Representative will also report to the Engineer and Contractor whenever materials or Work fail to comply with the Contract. The Resident Project Representative is authorized to reject any materials or suspend work which does not comply with the Contract until the issue is resolved by the Engineer.

However, the Resident Project Representative is not authorized to revoke, alter, enlarge, relax, or release any requirements of the Contract, or to approve or accept any portion of the Work, or to issue instructions contrary to the Plans and Specifications. The Resident Project Representative shall not manage or perform duties for the Contractor.

GP-30 CONSTRUCTION STAKES, LINES, AND GRADES

The Engineer shall direct the Contractor to all control points necessary for setting stakes and establishing lines and grades as shown on the Plans. The Contractor shall be responsible for laying out all of the Work. All layouts shall be witnessed and verified by the Engineer or Resident Project Representative prior to beginning the Work. The Contractor shall be responsible for proper execution of the Work according to the layouts after receiving verification from the Engineer.

The Contractor shall be responsible for furnishing and maintaining stakes such that the Work can be verified for acceptance. The Engineer may suspend the Work at any time if it cannot be adequately verified due to the number, quality, or condition of the stakes.

GP-31 CONTRACTOR'S RESPONSIBILITY FOR WORK

The Contractor shall execute all items covered by the Contract, and shall furnish, unless otherwise definitely provided in the Contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to complete the Work. The Contractor shall pay constant attention to the progress of the Work and shall cooperate with the Engineer in every way possible. The Contractor shall maintain a complete copy of the Contract at all times, including the Plans, Specifications, and any authorized modifications.

GP-32 ENVIRONMENTAL PROTECTION

The Contractor shall comply with and abide by all federal, state, and local laws and regulations controlling pollution of the environment, including air, water, and noise. The Contractor shall take precautions to prevent pollution of waters and wetlands with fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials and contaminants, and to prevent pollution of the atmosphere from particulate and gaseous matter, in accordance with all terms and conditions of federal, state, and local air and water pollution control laws and programs and their rules and regulations, including the federal Clean Air Act and the federal Clean Water Act.

The Contractor shall adhere to the provisions which require compliance with all standards, orders, or requirements contained under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, which prohibit the use under non-exempt Federal contracts, grants, or loans, of facilities included on the Environmental Protection Agency (EPA) list of Violating Facilities.

Construction operations in rivers, streams, lakes, tidal or coastal waters, reservoirs, canals, wetlands, and any other impoundments shall be restricted to areas where it is necessary to accomplish the Work and performed in accordance with any applicable federal, state, and local laws, regulations, permit requirements, and guidelines, and the Contractor shall conduct the Work in a manner that will not cause damaging concentrations of silt or pollution to water.

Contractor shall maintain and operate equipment to minimize noise, dust, and vibration near noise, dust and vibration-sensitive areas such as churches, hospitals, schools, and residential areas, and assure that any activities conducted near such areas are not unduly disruptive. Contractor shall maintain all equipment with properly functioning mufflers.

The Contractor shall be responsible for determining and utilizing any erosion and pollution control features or methods that may be necessary to comply with all federal, state, and local laws and regulations.

GP-33 SANITARY PROVISION

The Contractor shall provide and maintain sanitary accommodations for use by all employees and Subcontractors. Facilities shall comply with the requirements of the Louisiana State Board of Health and Hospitals and other authorities having jurisdiction. Committing public nuisance on the Project Site is prohibited.

GP-34 PAYMENT OF TAXES

The Contractor shall be responsible for all taxes and duties that maybe levied under existing State, Federal, and local laws during the completion of the Work. The Owner will presume that the amount of such taxes is included in the unit prices bid by the Contractor and will not provide additional reimbursement.

GP-35 RADIO AND TELEPHONES

The Contractor shall furnish and maintain radio and telephone equipment throughout the Contract Time which will allow communication between the Contractor and the Engineer or Resident Project Representative.

GP-36 NAVIGATION

All marine vessels shall comply with the following Federal Laws and Regulations:

- a) The International Navigational Rules Act of 1977 (Public Law 95-75, 91 Stat. 308, or 33 U.S.C. 1601-1608); and
- b) The Inland Navigation Rules Act of 1980 (Public Law 96-591, 94 Stat. 3415, 33 U.S.C. 2001-2038).

These rules can be found on the Internet at:

<http://www.navcen.uscg.gov/mwv/navrules/navrules.htm>.

All marine vessels shall display the lights and day shapes required by Part C- Lights and Shapes of the Inland Navigation Rules. The location, type, color, and size of the lights and day shape shall be in accordance with Annex I - Positioning and Technical Details of Lights and Shapes. Any vessel engaged in dredging is considered a "Vessel restricted in her ability to maneuver" and shall display all the lights and shapes required in Rule 27, "Vessel Not Under Control."

GP-37 OBSTRUCTION TO NAVIGATION

The Contractor shall minimize all obstructions to navigation in compliance with pertinent U. S. Coast Guard regulations while conducting the Work. The Contractor shall promptly move any floating equipment or marine vessels which obstruct safe passage of other marine vessels. Upon completion of the Work, the Contractor shall remove all marine vessels and other floating equipment such as temporary ranges, buoys, piles, and other marks or objects that are not permanent features of the Work.

GP-38 MARINE VESSELS AND MARINE ACTIVITIES

All marine vessels operated by the Contractor shall possess a valid United States Coast Guard (USCG) inspection certificate and current American Bureau of Shipping (ABS) Classification. All officers and crew shall possess valid USCG licenses as required by USCG regulations. These certificates, classifications, and licenses shall be posted in a public area on board each vessel.

All dredges and quarter boats not subject to USGS inspection and certification or not having a current ABS classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least 5 years' experience in commercial marine plant and equipment. The inspection certificate shall be posted in a public area on board each dredge and/or quarter boat.

All other plant and support vessels shall be inspected before being placed in service and at least annually by a qualified person. The inspection certificate shall be posted in a public area on board each plant and/or vessel.

GP-39 RECORD KEEPING

The Contractor shall maintain orderly records of the Progress Schedule, Daily Progress Reports, Progress Meetings, correspondence, submittals, reproductions of original Contract Documents, Change Orders, Field Orders, certificates, additional drawings issued subsequent to the executed Contract, clarifications and interpretations of the Contract Documents by the Engineer, and other related documents at the Project Site until all of the Work is accepted by the Engineer.

GP-40 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in three (3) copies. Each certificate shall be certified by an authorized agent of the supplying company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date of shipment. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the testing date. The Contractor shall also certify that all materials and test reports conform to the requirements of the Contract. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material if the material is tested and determined to be in nonconformance.

GP-41 SUBMITTALS

The Contractor shall review all Submittals for compliance with the requirements of the Contract prior to delivery to the Engineer. Each Submittal shall contain a signed statement by the Contractor that it complies with the Contract requirements with any exceptions explicitly listed. The Contractor shall comply with these requirements for Submittals from Subcontractors, manufacturers, and suppliers.

All Submittals shall include sufficient data to demonstrate that the requirements of the Contract are met or exceeded. All submittals shall be legible and marked with the project title and clearly identify the item submitted. Each submittal package shall include an itemized list of the items submitted.

All Submittals will be reviewed within fourteen (14) days after being received by the Engineer. The Contractor shall allow the Engineer sufficient time for review, corrections, and resubmission of all Submittals prior to beginning the associated Work. The Contract Time shall not be extended based on incorrect or incomplete Submittals.

GP-42 CLAIMS FOR EXTRA COST

The Contractor is expected to complete the Work according to the Contract Price specified in the Bid Documents. If the Contractor deems additional compensation is due for work, materials, delays or other additional costs/or expenses not covered in the Contract or not ordered as extra work, the Contractor shall give the Engineer written notice thereof within fourteen (14) calendar days after the receipt of such instructions and, in any event, before commencing the procedure. The Contractor shall justify the claim for extra cost by providing supporting data and calculations. The Engineer shall determine whether the Contractor is entitled to be compensated for such extra cost and shall make any required adjustments of the Contract in accordance with GP-43. If no written claim is made within this fourteen (14) calendar-day period, the Contractor will be deemed to have waived any claim for extra cost for such work.

Claim for damages or delays of the Work shall not be made by the Contractor for a relocation of the construction operation or portions thereof to other locations within the geographical scope of the project, when in the opinion of the Engineer, such relocation is necessary for the most effective prosecution of the Work and may be accomplished without undue hardship.

GP-43 ALTERATION OF THE CONTRACT AND COMPENSATION

Using Change Orders, Field Orders, or Written Amendments, the Owner may order extra work or make changes by altering the details of construction, add to or deduct from the Work. The requirements and stipulations of these documents shall be binding on the Owner and Contractor throughout the remainder of the Contract. Any claim for an extension of Contract Time caused thereby shall be adjusted at the time of ordering such change.

The value of any such extra work or change shall be determined in one or more of the following ways and in the following priority:

- a) By application of the unit prices in the Contract to the quantities of the items involved or subsequently agreed upon; or

- b) By mutual acceptance between the Owner and Contractor of a lump sum.

If none of the above methods is agreed upon, the Contractor, provided he is so ordered by the Owner in writing, shall proceed with the Work on a "force account" basis. In such a case, the Contractor shall keep and preserve in such form as the Engineer may direct, a correct itemized account of the direct cost of labor, materials, equipment, together with vouchers bearing written certification by the Contractor. In any case, the Engineer shall certify to the amount, including an allowance of fifteen percent (15%) for jobsite and home office overhead indirect expenses and profit due to the Contractor. Where such change involves a subcontractor, an allowance of fifteen percent (15%) for overhead and profit shall be due the subcontractor and an allowance of ten percent (10%) shall be due the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer's estimate and as approved in an executed Change Order.

If the Contractor is prevented from completing the Work according to the Contract Price due to the Owner, the Contractor may be entitled to any reasonable and necessary addition of cost as determined by the Engineer. Neither the Owner nor the Contractor shall be entitled to any damages arising from events or occurrences which are beyond their control, including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, acts of war, and other like matters. The provisions of this section exclude recovery for damages caused by the Contractor and compensation for additional professional services by either party.

GP-44 EXTENSION OF CONTRACT TIME

The Contractor is expected to complete the Work within the Contract Time specified in the Bid Documents. A legitimate increase of the Contract time may be requested by the Contractor throughout the course of the Work. This Claim must be submitted to the Engineer in writing within fourteen (14) days of the event which caused the time delay to the Contractor. If an extension of Contract Time involves an increase in Contract Price, both claims shall be submitted together. The Contractor shall justify the increase of the Contract Time in the Claim using supporting data and calculations. The Engineer may deny the claim if there is insufficient information to make a determination. If the Claim is approved, the Engineer shall issue a Change Order within thirty (30) days of the Claim. The Contract Time shall be increased on a basis that is commensurate with the amount of additional or remaining Work. For example, the Contract Time can be increased where the number of actual adverse weather days exceeds the number of days estimated in the Contract.

GP-45 OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE

45.1 TERMINATION FOR CAUSE

The Owner shall submit a written notice to the Contractor and Surety which justifies placement of the Contractor in default if:

- a) The Work is not begun within the time specified in the Notice to Proceed; or
- b) The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion; or

- c) The Contractor performs unsuitable, neglected or rejected work, refuses to remove materials; or
- d) The Work is discontinued; or
- e) The Work is not completed within the Contract Time or time extension; or
- f) Work is not resumed within a reasonable time after receiving a notice to continue; or
- g) The Contractor becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or
- h) The Contractor allows any final judgment to stand unsatisfied for a period of ten (10) days; or
- i) The Contractor makes an assignment for the benefit of creditors; or
- j) The Work is not performed in an acceptable manner.

If the Contractor or Surety does not remedy all conditions cited in the written notice within ten (10) days after receiving such a notice, the Contractor will be in default and the Owner shall remove the Contractor from the Work. If the Contractor is placed into default, the Owner may obtain the necessary labor, materials, and equipment or enter into a new Contract in order to complete the Work. All costs incurred by the Owner for completing the Work under the new Contract will be deducted from the payment due the Contractor. If the expense exceeds the sum payable under the Contract, the Contractor and Surety shall be liable to pay the Owner the difference.

45.2 TERMINATION FOR CONVENIENCE

Owner may, at any time, terminate this Contract or any portion thereof, for Owner's convenience, upon providing written notice to the Contractor. In such case, Contractor shall be paid for all work completed through the date notice was provided (less payments already received) and reasonable demobilization and restocking charges incurred and reasonable overhead and profit based upon industry standards on the work performed. In no event shall the Contractor be entitled to payment of overhead and profit on work not performed. In the event it is determined that the Contractor was wrongfully terminated for cause, pursuant to Section GP 45.1 above, such termination shall be automatically converted to a termination for convenience under and payment made as provided under this Section.

GP-46 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to temporarily suspend the Work in whole or in part. A Field Order shall be issued to the Contractor for any of the Work that is suspended for periods exceeding one (1) calendar day. The Field Order shall include the specific reasons and details for the suspension. The Contract Time shall not be extended if the Work is suspended due to failure by the Contractor to comply with a Field Order or with the Plans and Specifications. If the Work is suspended in the interest of the Owner, the Contractor shall make due allowances for the lost time.

GP-47 NON-CONFORMING AND UNAUTHORIZED WORK

Work not conforming to the Plans, Specifications, Field Orders, or Change Orders shall not be accepted for payment. Unacceptable or unauthorized work shall be removed and replaced in an acceptable manner at the expense of the Contractor in order to obtain final acceptance of the Work.

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner after seven (7) calendar days written notice to the Contractor, may correct such deficiencies itself or by use of other contractors without prejudice to any other remedy it may have, and may deduct the cost thereof from the payment then or thereafter due to the Contractor.

GP-48 CONTRACTOR'S RIGHT TO TERMINATE CONTRACT

The Contractor may terminate the Contract or Work and recover payment from the Owner for labor and materials if the Work is stopped through no act or fault of the Contractor for more than three (3) months. For example, such an occurrence could be caused by a court order or other public authority. In any case, the Contractor shall submit a written notice to the Engineer at the beginning of the occurrence, and a written Claim to the Owner at the end of the occurrence.

GP-49 BREACH OF CONTRACT

The Owner shall submit a written Claim to the Contractor regarding any breach of the Contract. The Contractor must provide a written response to the Owner regarding the breach of Contract within ten (10) days after the Claim. This response must provide either an admission to the Claim or a detailed denial based on relevant data and calculations. The failure of the Contractor to provide a proper response within ten (10) days shall result in justification of the Claim by default.

GP-50 NO WAIVER OF LEGAL RIGHTS

The Owner shall not be prevented from recovering costs from the Contractor, Surety, or both due to failure of the Contractor to fulfill all of the obligations under the Contract. If a waiver is provided to the Contractor for a breach of Contract by the Owner, it shall not apply to any other breach of Contract. Final acceptance of the Work shall not prevent the Owner from correcting any measurement, estimate, or certificate. The Contractor shall be liable to the Owner without prejudice to the terms of the Contract or any warranty for latent defects, fraud, or gross negligence.

GP-51 LIABILITY FOR DAMAGES AND INJURIES

To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner, Engineer, and their officers, employees, representatives, and/or agents from all suits, actions, claims, costs, losses, demands, and judgments (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) brought because of injuries or damage sustained by a person or property due to the operations of Contractor; due to negligence in safeguarding the Work, or use of unacceptable materials in constructing the Work; or any negligent act, omission, or misconduct of the Contractor; or claims or amounts recovered under the Workmen's Compensation Act or other law, ordinance, order, or decree; any money due the Contractor as considered necessary by the Owner for such purpose may be retained for use of the State or in case no money is due, the performance and payment bond may be held until such suits, actions, claims for injuries or damages have been settled and suitable evidence to that effect furnished to the Owner; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that adequate Workman's Compensation, Public Liability, and Property Damage Insurance are in effect.

The indemnification obligations of the Contractor shall not extend to the liability of the Owner, Engineer, and their affiliates arising out of the preparation or approval of the Plans, Specifications, maps, opinions, reports, surveys, or Change Orders, or for providing directions or instructions which are the primary cause of the injury or damage.

Should the Owner or Contractor suffer from any injury or damage due to an error, omission, or act of the other party or their legally liable affiliates, a written Claim shall be submitted to the other party within ten (10) days. The Claim shall provide all details regarding the injury or damage, the results of any investigations, and the action to be taken to prevent any reoccurrence.

GP-52 LIABILITY FOR LOSSES BY ACTS OF THE GOVERNMENT

The Owner shall not be liable for any loss or damage suffered by the Contractor arising out of a cessation of Work under this Contract due to any act or order of any local, state, or federal government agency. If this cessation occurs, the Contractor may request an extension of the Contract Time according to the provisions in GP-44.

GP-53 FINAL INSPECTION AND ACCEPTANCE

Whenever the work provided for, or contemplated by the contract, has been satisfactorily completed, all punch list items completed and the final cleaning up is performed, the Engineer shall be notified in writing that said work is completed and ready for final inspection. The Engineer shall, unless otherwise provided, make the final inspection within a reasonable length of time after the receipt of such notification.

If all construction provided for in the contract is found completed to the Engineer's satisfaction, that inspection shall constitute the final inspection and the Engineer will make recommendation to the Owner for final acceptance and notify the Contractor in writing of this recommendation of acceptance.

GP-54 AS-BUILT DRAWINGS

The Contractor shall submit all originals and copies of the As-Built Drawings to the Engineer for review and acceptance in accordance with the Special Provisions. The As-Built Drawings shall provide complete data for quantities, dimensions, specified performance and design criteria, and similar items which clearly represent the services, materials, and equipment the Contractor has provided. All revision sheets shall be clearly stamped with the words "As-Built".

GP-55 COMPLETION OF CONTRACT

Notwithstanding any other provision of this Contract and all applicable and necessary time delays under Louisiana law, completion of the Contract requires all of the Work to be complete, inspected by the Engineer, accepted by the Owner as recommended by the Engineer, and after final payment is made. After the Contract is complete, the Contractor will then be released from further obligation except as set forth in the Contract Bond and Contractor's Guarantee.

GP-56 CONTRACTOR'S GUARANTEE

The Contractor is obligated to provide a written guarantee to the Owner that all of the Work conforms to the Contract Documents. The Work shall be guaranteed to survive for a minimum period of 1 year after final acceptance, unless otherwise specified in the Technical Specifications.

a) The guarantee shall include:

1. A written warranty by the manufacturer for each piece of installed project equipment or apparatus furnished under the Contract.
2. Any necessary repair or replacement of the warranted equipment during the guarantee period at no cost to the Owner.
3. Satisfactory operation of installed equipment including, but not limited to, any mechanical and electrical systems furnished and constructed under the Contract during the guarantee period. The Contractor shall repair all equipment which fails due to defective materials or faulty workmanship during the guarantee period. The Contractor shall also be liable for all other ancillary expenses incurred by the Owner due to the failure.

b) The guarantee shall exclude defects or damage caused by:

1. Abuse or improper modification, maintenance, or operation by anyone other than the Contractor; or
2. Wear and tear under normal usage.

c) This obligation by the Contractor shall be absolute. The following actions will not constitute acceptance of non-conformance Work or release the Contractor from obligation to furnish the Work in accordance with the Contract Documents:

1. Observations by the Owner or Engineer; or
2. Recommendations by the Engineer or payment by the Owner; or
3. Use of the Work by the Owner; or
4. Issuance of a notice of acceptance by the Owner pursuant to the provisions of GP-53, or failure to do so; or
5. Any inspection, test, or approval by others; or
6. Any correction to non-conforming work by the Owner.

GP-57 DISPUTE RESOLUTION

The parties shall use their best efforts to resolve all disputes in an amicable fashion. Prior to filing suit by either party with respect to any claims, or disputes arising between the parties, the disputes shall be submitted first to non-binding mediation. The mediation shall be conducted in accordance with the Construction Industry Mediation Rules of the American Arbitration Association. If the parties cannot agree to a private mediator, then the mediator shall be selected by the American Arbitration Association, upon the filing of a demand for mediation.

If the dispute is not resolved by mediation within 60 days from the request for mediation, then either party may institute legal proceedings. Any litigation involving the Owner and arising under or related to the Contract or the bidding or award thereof shall be instituted exclusively in the 19th Judicial District Court in and for the Parish of East Baton Rouge, State of Louisiana.

GP-58 PAYMENT

The Owner hereby agrees to pay to the Contractor as full compensation for all work performed under the contract, and/or supplemental agreements thereto, the monetary value of the actual quantities in the completed work according to the schedule of unit prices and/or lump sum prices set forth in attached bid proposal and/or duly authorized supplements thereto, and made a part of the Contract.

Partial payments under the Contract shall be made at the request of the Contractor not more than once each month, based upon partial estimates agreed to by the Contractor and Engineer and shall be furnished to the Engineer and approved by the Engineer prior to transmittal to the Owner for approval and payment.

A Subcontractor Report (included in the appendices of the Contract Documents) should be submitted by the Contractor with each request for partial payment, to be used for informational purposes only by CPRA.

The partial estimates will be approximately stated, and all partial estimates and payments shall be subject to corrections in the estimate rendered following the discovery of any error in any previous estimates.

The payment of the partial estimate shall be taken as verification that the work has been performed and that its quality is satisfactory, however it will in no way serve as a release to the Contractor for the responsibility of any portions thereof. The work and any particulars relating thereto shall be subject to revision and adjustment by the Engineer and/or the Owner at any time prior to final payment, regardless of any previous action taken.

There shall be reserved from the payments provided for the Contract ten percent (10%) for contracts less than \$500,000 or five percent (5%) for contracts of \$500,000 or more, of the estimates submitted, said sum to constitute a trust fund for the protection of and payment to any person or persons, mechanic, subcontractor or materialmen who shall perform any labor upon such contract, or the doing of said work, and all persons who shall supply such person or persons or subcontractors with provisions and supplies for the carrying on of such work, and shall be withheld for a minimum of forty-five (45) calendar days after final acceptance of the completed contract.

After the expiration of the forty-five (45) calendar day period, the reserve in excess of a sum sufficient to discharge the claims of materialmen and laborers who have filed their claims, together with a sum sufficient to defray the cost of such action and to pay attorneys' fees, shall be paid to the Contractor.

The Contractor shall be responsible for obtaining and furnishing a clear lien and privilege certificate to the Owner at the expiration of the retainage period, and prior to payment of any reserve withheld.

GP-59 PAYMENTS WITHHELD

In addition to the percentage provided for in Section GP-58 of these General Provisions and in accordance with any other provision of this Contract, the Owner may withhold such amounts from any payment as may be necessary to protect himself from loss on account of:

- a) Defective work not remedied;
- b) Claims filed or reasonable evidence indicating probable filing of claims;
- c) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- d) Reasonable evidence that the Work will not be completed within the Contract time and that the unpaid balance would not be adequate to cover damages for the anticipated delay;
- e) A reasonable doubt that the contract can be completed within the time period remaining under the contract;
- f) Damage to another contractor;
- g) Failure to submit required reports; or
- h) Modifications of the contract which necessitate the execution of change orders prior to payment of funds.

Furthermore, nothing contained in this Section shall be deemed to limit the right of the Owner to withhold liquidated damages, as stated in the Instructions to Bidders from any amounts which may be due and owing the Contractor for work performed under the contract.

GP-60 LIENS

Neither the final payment nor any part of the retained percentage shall come due until the Contractor shall deliver to the Owner a complete release of all liens arising out of this contract, or receipts in full in lieu thereof, and, if required by the Owner, an affidavit that so far as he has knowledge or information, the releases and receipts include all labor and material for which a lien could be filed; but if any subcontractor refuses to furnish a release or receipt in full, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against any lien, construction cost, or attorney's fees.

GP-61 EQUAL EMPLOYMENT OPPORTUNITY

The State of Louisiana is an equal opportunity employer, and looks to its Contractor, subcontractors, vendors and suppliers to take affirmative action to effect this commitment in its operations.

By submitting the bid proposal and executing the Contract, the Contractor agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, the Federal Rehabilitation Act of 1973, as amended, the Vietnam Era Veterans Re-adjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, and the Age Act of 1975, and the Contractor agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

The Contractor agrees not to discriminate in its employment practices, and will render services the Contract, without regard to their race, age, color, religion, sex, national origin, veteran status, political affiliation or disabilities. Any act of discrimination committed by the Contractor, or failure to comply with these statutory obligations when applicable, shall be grounds for termination of the Contract.

GP-62 ANTI-KICKBACK CLAUSE

The Contractor agrees to adhere to the mandate dictated by the Copeland "Anti-Kickback" Act which provides that each contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the completion of the work, to give up any part of the compensation to which he is otherwise entitled.

GP-63 SUSPENSION/DEBARMENT

Contractor certifies, by signing and submitting any bid, that their company, any subcontractors, or principals are not suspended or debarred by the General Services Administration (GSA) in accordance with the requirements in OMB Circular A-133. A list of parties who have been suspended or debarred can be viewed via the internet at www.epls.gov.

Contractor agrees to secure from any contractor(s) and subcontractor(s) for the captioned project, certification that such contractor(s) and subcontractor(s) are not suspended, debarred or declared ineligible from entering into contracts with any department or agency of the Federal Government or of the State of Louisiana, or in receipt of a notice of proposed debarment or suspension.

Contractor shall provide immediate notice to Owner in the event of it or its contractor(s) or any subcontractor(s) being suspended, debarred or declared ineligible by any department or agency of the Federal Government or of the State of Louisiana, or upon receipt of a notice of a proposed debarment or suspension, either prior to or after execution of this Contract.

Upon receipt of notice of suspension, debarment, or declaration that Contractor or its contractor(s) or any subcontractor(s) is/are ineligible to enter into contracts with any department or agency of the Federal Government or of the State of Louisiana, either prior to or after execution of this Contract, Owner reserves the right to review cause for said debarment, suspension, or declaration of ineligibility, and to terminate this Contract pursuant to the terms of GP-45 OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE, or take such other action it deems appropriate under this Contract.

GP-64 LOUISIANA FIRST HIRING ACT

Contractor shall comply with the Louisiana First Hiring act (La. R. S. 39:2201-2204), which requires that within ten (10) days of executing the Contract, Contractor shall submit the following information to the Louisiana Workforce Commission:

1. The number and types of jobs anticipated for this Work.
2. The skill level of the jobs anticipated for the Work.
3. The wage or salary range for each job anticipated for the Work.
4. Methods, if any, that the Contractor will use to recruit unemployed persons or person employed in low wage jobs to fill job openings for the Work.

END OF PART I - GENERAL PROVISIONS

PART II SPECIAL PROVISIONS

SP-1 LOCATION OF WORK

The Project Site is located in southern Lafourche and Jefferson Parishes southeast of Port Fourchon. Approximate coordinates for the center of the Project are 29°8'35.78" N and 90°7'48.90" W (NAD 83).

The Project Site is only accessible by boat. The General Notes in the Plans give information on the tides and draft requirements in this area. A boat launch is available on Highway LA 3090 and directions are provided in Appendix F of these Specifications.

SP-2 WORK TO BE DONE

The Contractor shall provide all labor, materials, and equipment necessary to perform the Work. The Work shall include, but not be limited to, mobilization and demobilization to the Project Site, surveying, dredging and placement of dredged material, construction of earthen containment dikes, and installation of instrumented settlement plates. The Work shall be performed in accordance with these Specifications and in conformity to lines, grades, and elevations shown on the Plans or as directed by the Engineer. Quantity calculations, layouts, shop drawings, and construction sequencing of these items shall be provided in the Work Plan. The major tasks associated with the Work are described as follows:

- 2.1 Site Examination: The Contractor shall examine the Project Site and data included in the Appendices of these Specifications to determine the character of the material to be dredged and the condition of the Marsh Creation Area. Material such as logs, stumps, snags, tires, scrap, debris and other material may be encountered within the Project Site. No consideration shall be given to any claims for additional payments based on the failure of the Contractor to inspect the Project Site and data provided in the Appendices of these Specifications.
- 2.2 Surveying: Prior to construction, a Pre-Construction Survey shall be performed on the marsh creation area, marsh creation borrow areas, earthen containment dikes, earthen containment dike borrow areas, sand borrow area, dredge pipeline corridors, equipment access corridors, and instrumented settlement plates. During construction, Process surveys shall be performed for partial Acceptance and payment. After construction is complete, the Contractor shall develop an As-Built Survey for final Acceptance of all the Work.
- 2.3 Earthen Containment Dikes: Earthen containment dikes shall be constructed from in-situ soils in order to create full perimeter containment for the marsh creation area as shown on the Plans. Internal training dikes shall be constructed as shown on the Plans.
- 2.4 Dredge Pipeline Corridors: A hydraulic dredge pipeline which facilitates the transfer of dredge material from the borrow area to the marsh creation area shall be installed along the corridors shown on the Plans.
- 2.5 Marsh Creation Area: Fill material shall be dredged from the marsh creation borrow areas in the Gulf of Mexico and placed into the marsh creation area as shown on the Plans.
- 2.6 Grade Stakes: Grade stakes shall be installed in the marsh creation area as shown on the Plans.

- 2.7 Instrumented Settlement Plates: Instrumented settlement plates shall be installed in the marsh creation area as shown on the Plans.
- 2.8 Use of Equipment: The equipment used for the Work shall be operated within the boundaries of the Project Site and away from existing vegetated wetlands or any other sensitive areas. The Contractor shall be responsible for returning all disturbed wetlands to pre-existing conditions at no expense to the Owner.
- 2.9 Existing Infrastructure: The Contractor shall be responsible for investigating, locating and protecting all existing facilities, structures, services, and pipelines on, above, or under the surface of the area where hydraulic or mechanical dredging is to be performed. The Owner will not be held responsible for damage to the Contractor's equipment, employees, subcontractors, adjacent property owners, or anyone else connected with the Project due to encountering objects above and below the water line.

Existing infrastructure, where indicated on the Plans, are shown only to the extent such information was made available to or discovered by the Engineer during preparation of the Plans. There is no guarantee as to the accuracy or completeness of such information, and all responsibility for the accuracy and completeness is expressly disclaimed. If the Contractor fails to discover an underground installation and damages the same, the Contractor shall be responsible for the cost of the repair of the infrastructure plus the cost of any environmental damage and clean up.

SP-3 CONTRACT MILESTONES

Prior to Construction		
Milestone	Recipient	Date Due
Bid Advertisement	Publications	As Advertised
Mandatory Pre-Bid Conference and Highly Encouraged Site Visit (GP-5)	Provided in Advertisement for Bids	Provided in Advertisement for Bids
Questions on Bid Documents (GP-5 & SP-5)	Submit to cprabidding@la.gov	Provided in Instructions to Bidders
Effective Date of Contract	Contractor and Owner	Stated in Contract
Start of Contract Time	Contractor and Owner	Stated in Notice to Proceed
List of all Subcontractors (GP-19)	Submitted to Engineer	Prior to awarding any subcontracts
Work Plan (GP-8 & SP-7)	Submitted to Engineer	Fourteen (14) days prior to Pre-Construction Conference
Progress Schedule (GP-9)	Submitted to Engineer	At least fourteen (14) days prior to starting construction, monthly thereafter
During Construction		
Milestone	Recipient	Date Due
Daily Progress Report (GP-10)	Resident Project Representative and Engineer	By 12:00 PM the following day from mobilization to demobilization
USCG Notice to Mariners (SP-16)	Submitted to Engineer	Prior to mobilization of the dredge and dredge pipeline
Aids to Navigation	Submitted to Engineer	Prior to mobilization of the dredge and dredge pipeline

During Construction (cont.)		
Milestone	Recipient	Date Due
Pre-Construction Conference (GP-14)	Contractor, Engineer and Resident Project Representative	As determined by the Engineer after the Notice to Proceed is issued
Progress Meetings and Reports (GP-13 & GP-39)	Engineer and Resident Project Representative	Bi-weekly or as determined at the Pre-Construction Conference
Pre-Construction Survey (TS-210)	Submitted to Engineer	Fourteen (14) working days prior to anticipated start of Construction
Process Survey (TS-210)	Submitted to Engineer	Within five (5) working days after notification that field data collection for each Process Survey is complete
Post Construction		
Milestone	Recipient	Date Due
As-Built Survey (TS-210)	Submitted to Engineer	Draft version due five (5) working days prior to Final Inspection. Final version due ten (10) working days after Final Inspection
Request for Final Inspection (GP-53)	Submitted to Engineer	Upon completion of the Work
As-Built Drawings (GP-54)	Submitted to Engineer	Five (5) working days after Final Acceptance
End of Contract Time	Contractor and Owner	Five hundred forty-eight (548) calendar days after Notice to Proceed

SP-4 DELIVERABLES

- 4.1 Prior to Construction: The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference:
 - 4.1.1 Updates to the Work Plan and Progress Schedule based on comments from the Engineer;
 - 4.1.2 Updates to the dredge or equipment data sheets;
 - 4.1.3 Proposed changes to the layout of the Work;
 - 4.1.4 Records of communication between the Contractor and private property owners, pipeline operators, government agencies, etc.
- 4.2 During Construction: The Contractor shall provide the following information to the Engineer during construction:
 - 4.2.1 The results of all surveys and calculations as specified in TS-210;
 - 4.2.2 Progress Schedule as specified in GP-9;
 - 4.2.3 Daily Progress Reports as specified in GP-10;
 - 4.2.4 Copies of all inspection and monitoring reports;

- 4.2.5 All Change Orders, Field Orders, Claims, Clarifications, and Amendments;
- 4.2.6 Results of any materials testing;
- 4.2.7 Copies of all delivery slips, which shall include the source of construction materials, date of delivery, exact quantity, and size of materials delivered with each shipment to the Project Site;
- 4.3 Post Construction: The following documents shall also be submitted to the Engineer after completion and final Acceptance of the Work:
 - 4.3.1 As-Built Drawings shall show revisions such as field or change orders and shall be noted, shown in red and be easily distinguishable from the original design.

SP-5 CONTACT INFORMATION

Prior to Bid opening date, the Contractor shall send all questions and requests for clarification or interpretation of the Bid Documents in writing to the attention of Allison Richard of the Coastal Protection and Restoration Authority. The address and contact information is as follows:

Coastal Protection and Restoration Authority (CPRA)
150 Terrace Avenue, Suite 100
Baton Rouge, LA 70802
Attn : Allison Richard
Phone: 225-342-5453
Fax: 225-800-5599
Email: cpra.bidding@la.gov

After execution of the contract between Owner and Contractor, the successful Contractor shall contact the Engineer concerning bid documentation or questions. The addresses and contact information for the Engineer are listed as follows:

CPRA Field Engineer
Adam Ledet, P.E.
1440 Tiger Drive. Suite B
Thibodaux, LA 70301
E-mail: adam.ledet@la.gov
Phone: 985-449-5105
Fax: 985-447-0997

CPRA Project Engineer
Shannon Haynes, P.E.
150 Terrace Avenue
Baton Rouge, LA 70802
Email: shannon.haynes@la.gov
Phone: 225-342-9424
Fax: 225-342-4591

The Owner and Engineer shall deliver all written Claims, Notices, Submittals, Plans, and other documents to the Contractor at the address indicated on the Bid.

SP-6 INSURANCE AND BONDS

The Contractor shall purchase and maintain without interruption for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, its agents, representatives, employees or subcontractors. The duration of the contract shall be from the inception of the contract until the date of final payment.

6.1 Minimum Scope and Limits of Insurance

6.1.1 Worker's Compensation

Worker's Compensation insurance shall be in compliance with the Worker's Compensation law of the State of Louisiana. Employers Liability is included with a minimum limit of \$500,000 per accident/per disease/per employee. If Work is to be performed over water and involves maritime exposure, applicable LHWCA, Jones Act or other maritime law coverage shall be included and the Employers Liability limit increased to a minimum of \$1,000,000. A.M. Best's insurance company rating requirement may be waived for Worker's compensation coverage only.

6.1.2 Commercial General Liability

Commercial General Liability insurance, including Personal and Advertising Injury Liability and Products and Completed Operations Liability, shall have a minimum limit per occurrence based on the Project value. The Insurance Services Office (ISO) Commercial General Liability occurrence coverage form CG 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. Claims-made form is unacceptable.

The aggregate loss limit must apply to each project. ISO form CG 25 03 (current form approved for use in Louisiana), or equivalent, shall also be submitted. The State project number, including part number, and Project name shall be included on this endorsement.

COMBINED SINGLE LIMIT (CSL) PER OCCURRENCE

The required minimum combined single limit amount of insurance shall be as provided below:

<u>Initial Contract Amount</u>	<u>Minimum Insurance</u>
Up to \$1,000,000	\$1,000,000
From \$1,000,001 to \$2,000,000	\$2,000,000
Over \$2,000,000	\$5,000,000

6.1.3 Automobile Liability

Automobile Liability Insurance shall have a minimum combined single limit per occurrence of \$1,000,000. ISO form number CA 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. This insurance shall include third-party bodily injury and property damage liability for owned, hired and non-owned automobiles. If any non-licensed motor vehicles are engaged in operations within the terms of the contract on the site of the work to be performed thereunder, such insurance shall cover the use of any such vehicles.

NOTE: If the Contractor does not own an automobile and an automobile is utilized in the execution of the contract, then hired and non-owned coverage is acceptable. If an automobile is not utilized in the execution of the contract, then automobile coverage is not required.

6.1.4 Excess Umbrella

Excess Umbrella Insurance may be used to meet the minimum requirements for General Liability and Automobile Liability only.

6.1.5 Pollution Liability (required when asbestos or other hazardous material abatement is included in the contract)

Pollution Liability insurance, including gradual release as well as sudden and accidental, shall have a minimum limit of not less than \$1,000,000 per claim. A claims-made form will be acceptable. A policy period inception date of no later than the first day of anticipated Work under this contract and an expiration date of no earlier than 30 days after anticipated completion of all Work under the contract shall be provided. There shall be an extended reporting period of at least 24 months, with full reinstatement of limits, from the expiration date of the policy. The policy shall not be cancelled for any reason, except non-payment of premium.

6.1.6 Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and accepted by the Owner. The Contractor shall be responsible for all deductibles and self-insured retentions.

6.2 Other Insurance Provisions

6.2.1 The policies are to contain, or be endorsed to contain, the following provisions:

6.2.1.1 Worker's Compensation and Employers Liability Coverage

6.2.1.1.1 The insurer shall agree to waive all rights of subrogation against the Owner, its officers, agents, employees and volunteers for losses arising from Work performed by the Contractor for the Owner.

6.2.1.2 General Liability Coverage

6.2.1.2.1 The Owner, its officers, agents, employees and volunteers are to be added as additional insureds as respects liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor, premises owned, occupied or used by the Contractor. ISO Form CG 20 10 (current form approved for use in Louisiana), or equivalent, is to be used.

6.2.1.2.2 The Contractor's insurance shall be primary as respects the Owner, its officers, agents, employees and volunteers. The coverage shall contain no special limitations on the scope of protection afforded to the Owner, its officers, officials, employees or volunteers. Any insurance or self-insurance maintained by the Owner shall be excess and non-contributory of the Contractor's insurance

6.2.1.2.3 The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the policy limits.

6.2.1.3 All Coverages

6.2.1.3.1 Coverage shall not be canceled, suspended, or voided by either party (the Contractor or the insurer) or reduced in coverage or in limits except after 30 days written notice has been given to the Owner. Ten-day written notice of cancellation is acceptable for non-payment of premium. Notifications shall comply with the standard cancellation provisions in the Contractor's policy.

6.2.1.3.2 Neither the acceptance of the completed Work nor the payment thereof shall release the Contractor from the obligations of the insurance requirements or indemnification agreement.

6.2.1.3.3 The insurance companies issuing the policies shall have no recourse against the Owner for payment of premiums or for assessments under any form of the policies.

6.2.1.3.4 Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the Owner, its officers, agents, employees and volunteers.

6.2.2 Acceptability of Insurers

All required insurance shall be provided by a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located. Insurance shall be placed with insurers with an A.M. Best's rating of **A-:VI or higher**. This rating requirement may be waived for Worker's compensation coverage only.

If at any time an insurer issuing any such policy does not meet the minimum A.M. Best rating, the Contractor shall obtain a policy with an insurer that meets the A.M. Best rating and shall submit another certificate of insurance as required in the contract.

6.2.3 Verification of Coverage

Contractor shall furnish the Owner with Certificates of Insurance reflecting proof of required coverage. The Certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The Certificates are to be received and approved by the Owner before Work commences and upon any contract renewal thereafter. The Certificate Holder must be listed as follows:

State of Louisiana
Coastal Protection and Restoration Authority
150 Terrace Avenue
Baton Rouge, LA, 70802
Attn: Project # BA-171 (Caminada Headland Back Barrier Marsh Creation Project)

In addition to the Certificates, Contractor shall submit the declarations page and the cancellation provision endorsement for each insurance policy. The Owner reserves the right to request complete certified copies of all required insurance policies at any time.

Upon failure of the Contractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Owner, may be suspended, discontinued or terminated. Failure of the Contractor to purchase and/or maintain any required insurance shall not relieve the Contractor from any liability or indemnification under the contract.

If the Contractor does not meet the insurance requirements at policy renewal, at the option of the Owner, payment to the Contractor may be withheld until the requirements have been met, OR the Owner may pay the renewal premium and withhold such payment from any monies due the Contractor, OR the contract may be suspended or terminated for cause.

6.2.4 Subcontractors

Contractor shall include all subcontractors as insureds under its policies OR shall be responsible for verifying and maintaining the certificates provided by each subcontractor. Subcontractors shall be subject to all of the requirements stated herein. The Owner reserves the right to request copies of subcontractor's certificates at any time.

If Contractor does not verify subcontractors' insurance as described above, Owner has the right to withhold payments to the Contractor until the requirements have been met.

6.2.5 Worker's Compensation Indemnity

In the event the Contractor is not required to provide or elects not to provide Worker's compensation coverage, the parties hereby agree the Contractor, its Owners, agents and employees will have no cause of action against, and will not assert a claim against, the State of Louisiana, its departments, agencies, agents and employees as an employer, whether pursuant to the Louisiana Worker's Compensation Act or otherwise, under any circumstance. The parties also hereby agree that the State of Louisiana, its departments, agencies, agents and employees shall in no circumstance be, or considered as, the employer or statutory employer of Contractor, its Owners, agents and employees. The parties further agree that Contractor is a wholly independent Contractor and is exclusively responsible for its employees, Owners, and agents. Contractor hereby agrees to protect, defend, indemnify and hold the State of Louisiana, its departments, agencies, agents and employees harmless from any such assertion or claim that may arise from the performance of this contract.

6.2.6 Indemnification/Hold Harmless Agreement

Contractor agrees to protect, defend, indemnify, save, and hold harmless, the State of Louisiana, all State Departments, Agencies, Boards and Commissions, its officers, agents, servants, employees and volunteers, from and against any and all claims, damages, expenses and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur, or in any way grow out of, any act or omission of Contractor, its agents, servants and employees, or any and all costs,

expenses and/or attorney fees incurred by Contractor as a result of any claims, demands, suits or causes of action, except those claims, demands, suits or causes of action arising out of the negligence of the State of Louisiana, all State Departments, Agencies, Boards, Commissions, its officers, agents, servants, employees and volunteers.

Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands, suits or causes of action at its sole expense and agrees to bear all other costs and expenses related thereto, even if the claims, demands, suits, or causes of action are groundless, false or fraudulent.

6.3 Performance and Payment Bond

6.3.1 Recordation of Contract and Bond [38:2241A(2)]

The Contractor shall record within thirty (30) days the Contract Between Owner and Contractor, and Performance and Payment Bond with the Clerk of Court in the Parish in which the Work is to be performed. The Contractor shall obtain a Certificate of Recordation from the Clerk of Court and forward this Certificate immediately to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids. No requests for payment will be processed until receipt of the Certificate of Recordation.

SP-7 WORK PLAN SUPPLEMENTAL

The following items shall be included in the Work Plan in addition to those required by those required by GP-8:

- 7.1 The field equipment, methodology and software to be used for survey data collection, post-processing, and calculations of quantities;
- 7.2 Hydraulic Dredge Data Sheet in Appendix J;
- 7.3 Equipment Data Sheet in Appendix K;
- 7.4 Layout of equipment staging areas;
- 7.5 Layout and schedule for construction of the earthen containment dikes;
- 7.6 Dike breach repair procedures and communications protocol;
- 7.7 Cut and fill sequence for each marsh creation borrow area and each increment within the marsh creation area;
- 7.8 Material type, diameter, length, layout and schedule for installing and removing the dredge pipeline;
- 7.9 Layout and schedule for fabrication and installing instrumented settlement plates and associated equipment;
- 7.10 Layout for all equipment access routes;

- 7.11 Shop drawings, layout and schedule for installing and removing the primary and secondary weirs;

SP-8 FAILURE TO COMPLETE ON TIME

For each day the Work remains incomplete beyond the Contract Time, as specified in SP-3, or Extension of Contract Time, as specified in GP-44, the sum of five-thousand four hundred seventy dollars (\$5,470) per calendar day will be deducted from any money due to the Contractor as liquidated damages. The Contractor and Surety shall be liable for any liquidated damages that are in excess of the amount due the Contractor.

SP-9 TRANSPORTATION

The Contractor shall provide a safe and reasonable means of transportation to and from the Boat Launch and Project Site for the Engineer, Resident Project Representative, and the Federal Sponsor throughout the Work. The schedule and pickup location shall be arranged by the Engineer, Resident Project Representative, and the Contractor prior to mobilization. Upon request, overnight room and board shall be provided to these personnel by the Contractor if adequate facilities are available. The Contractor shall provide daily access to a shallow draft boat (4 passenger capacity) to properly inspect the various project features during the duration of construction activities. The Contractor shall supply the fuel and maintain the boat. All mechanical malfunctions of the boat shall be repaired within twelve (12) hours.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other necessary boats at the expense of the Contractor. The costs associated with providing the boats shall be included in the lump sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)".

SP-10 OFFICE FOR OWNER

The Contractor shall provide an office for the Engineer and Resident Project Representative at the Project Site. This office shall be for the sole use of the Engineer or Resident Project Representative, suitably sized, and provided with lighting, HVAC and an internet connection. The office furnishings shall include a work table and two chairs.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use another necessary office at the expense of the Contractor. The cost for providing and furnishing this office shall be included in the contract lump sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)".

SP-11 LANDOWNER AND PIPELINE REQUIREMENTS

The Owner has executed temporary easement, servitude, or right-of-way agreements required to perform the Work at the Project Site from the landowners, utilities and pipeline operators (Grantors) listed in the Plans. Copies of the executed agreements are included in the land rights memorandum in Appendix D. The Contractor shall abide by the stipulations set forth by the executed agreements. The Contractor shall notify all grantors at least five (5) days prior to performing the Work or as otherwise stipulated in the executed agreements.

The Contractor shall add all grantors listed in the Landrights Memorandum in Appendix D as additional insured. It is also agreed and understood that the Contractor will at all times indemnify and hold harmless all landowners from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney's fees, by reason of personal injury, death (including but not limited to injuries to and death of employees of the landowners and the Contractor's employees) or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of your rights hereunder, or to your presence upon or use of the landowners' premises above referred to, or to the use or existence of your facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim, or cause of action is caused by the negligence of the landowners, their employees, agents, or representatives.

No access, excavation, anchors or spuds shall be permitted within a minimum of fifty (50) feet of the right-of-way of any pipeline or utility unless specified otherwise in the Contract Documents. No dredging shall be permitted within a minimum of five hundred (500) feet of any existing pipeline or utility in the marsh creation borrow areas unless specified otherwise in the Contract Documents.

SP-12 OYSTER LEASE RESTRICTIONS

All oyster leases within the fill area have been acquired and extinguished.

SP-13 SPECIES OF CONCERN

The Environmental Protection Agency consulted with the United States Fish and Wildlife Service (USFWS) and the Louisiana Department of Wildlife and Fisheries (LDWF) about possible species of concern in the area. The Contractor shall review all environmental documents in Appendix N and the Construction Permit special conditions in Appendix E, as well as comply with the conditions listed therein regarding the protection of these and other species throughout the performance of the Work. The conditions include instruction of construction personnel, signage, work stoppage, reporting, etc.

SP-14 NOTIFICATION OF DISCOVERY OF HISTORICAL OR CULTURAL SITES

If during construction activities the Contractor observes items that may have prehistoric, historical, archeological, or cultural value, the Contractor shall immediately cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources. Such observations shall be reported immediately to the Owner and Engineer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special dispositions of the finds should be made. The Contractor shall not resume work at the site in question until State authorities have rendered judgment concerning the artifacts of interest.

SP-15 NAVIGATION

The Work shall be performed in accordance with the Navigable Waters and Wetlands Subsection 107.09 of the latest edition of the Louisiana Standard Specification for Roads and Bridges. Navigable waterways shall not be impaired except as allowed by applicable laws or regulations. Dredging of access channels shall not be permitted unless otherwise specified in the Contract Documents. It is the responsibility of the Contractor to select equipment that can navigate from a maintained navigation channel to the Project Site without deepening or widening existing water bottoms unless otherwise specified in the Contract Documents. All equipment shall remain floating at all times during transit to the Project Site. The Contractor shall obtain NOAA Nautical Charts and/or other charts to become familiar with the water bottom depths in the vicinity of the Project Site.

SP-16 NOTICE TO MARINERS

The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard at least thirty (30) days prior to mobilization of the hydraulic dredge and installation of the dredge pipeline and provide all necessary information regarding the layout and schedule for the entire dredging operation. The United States Coast Guard shall publish this information in the local notice to mariners. A copy of the original notice and all updates shall be provided to the Engineer as specified by SP-3.

SP-17 AIDS TO NAVIGATION

The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard and determine the type and location of aids to navigation that are required to be installed or removed in order to safely perform the Work. The types of aids to navigation may include warning signs, buoys, beacons or lights. The Contractor shall also submit a permit application and obtain a permit from the Eighth United States Coast Guard District prior to installation or removal of any aids to navigation. The permit application shall include the type, position, color, and dates for installation or removal of all aids to navigation. New aids to navigation shall not be installed in a manner which conflicts with existing aids to navigation. The Contractor shall not otherwise remove, modify, obstruct, willfully damage, make fast to or interfere with any existing aids to navigation. The Contractor shall provide a copy of the permit and permit application at least seven (7) days prior to mobilization. The costs associated with installing, maintaining, and removing aids to navigation shall be included in Bid Item No. 3, "General Mobilization and Demobilization (TS-102)".

SP-18 ADJUSTMENT OF QUANTITIES

Where the quantity of Work with respect to any item is covered by a unit price, such quantities are estimated quantities to be used when comparing bids and the right is reserved by the Owner to increase/decrease such quantities up to 25% without adjustment of the unit price as may be necessary to complete the Work as described in these Plans and Specifications and/or remain within funding limits.

SP-19 FILE SHARE PLATFORM

The Contractor shall provide an internet platform which will facilitate the transfer of all submittals (I.E., surveys, Work Plan, etc.) to the Engineer throughout the duration of the Contract. The platform shall consist of an internet file sharing service or file transfer protocol server.

SP-20 AERIAL PHOTOGRAPHY

Aerial photography shall be obtained to illustrate Pre-Construction conditions, verify the progress of Work, and for Final Acceptance.

Prior to commencing construction, monthly thereafter, and upon completion of all construction activities, low-elevation color, digital, oblique aerial photography shall be acquired and submitted that shows the progress of the Work. Best efforts shall be made to repeat monthly photographs at the same locations, altitude and viewpoints. Best efforts shall also be made to acquire imagery during good weather for adequate lighting. The Pre-Construction and Post-Construction photography shall obtain a project view(s) of the entire Project Site, with best efforts to repeat at the same locations, altitude and viewpoints. Submittals shall include high-resolution aerial photograph(s) in digital (TIF or JPG) format. Each photograph submitted shall include documentation of the horizontal limits displayed.

Contractor shall provide notice to the Engineer and name/contact information for aerial photography subcontractor a minimum of one week prior to the execution of aerial photography.

There will be no direct payment for providing the Aerial Photography as described herein. Payment for Aerial Photography shall be included in the lump sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)". Unrestricted rights to use of the photos shall be conveyed to the Owner.

SP-21 PROHIBITION OF DISCRIMINATORY BOYCOTTS OF ISREAL IN STATE PROCUREMENT

By submitting a response to this solicitation, the bidder or proposer certifies and agrees that the following information is correct:

In preparing its response, the bidder has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The bidder also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. The state reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.

END OF PART II - SPECIAL PROVISIONS

PART III TECHNICAL SPECIFICATIONS

TS-100 HYDRAULIC DREDGE MOBILIZATION AND DEMOBILIZATION

- 100.1 Scope: The Contractor shall furnish all labor and equipment required to mobilize a hydraulic dredge and, if necessary, a booster pump to perform the Work at the Project Site. The Contractor shall demobilize the equipment from the Project Site upon Acceptance of the marsh creation area. This Bid Item shall exclude the Work and cost of operating and maintaining the hydraulic dredge and booster pump, and all items specified in TS-101, TS-102, and TS-400.
- 100.2 Arbitrary Mobilization by Contractor: The Owner shall pay for only one mobilization and demobilization of the hydraulic dredge and booster pump. Should the Contractor demobilize this equipment prior to completing the Work, subsequent remobilization shall be performed at no cost to the Owner.
- 100.3 Utilization: The Contractor shall utilize an appropriate hydraulic cutter head dredge and, if necessary, a booster pump to perform the Work within the Contract Time. This equipment shall have sufficient draft to access the Project Site without excavating water bottoms or causing damage to existing infrastructure. This equipment shall be sized such that the production capacity will not overwhelm the earthen containment dikes and weirs during fill placement. This equipment shall remain in satisfactory working condition and be subject to inspection by the Engineer or Resident Project Representative throughout the duration of the Work.
- 100.3.1 Booster Pump: If utilized, the booster pump shall be positioned within the limits of the marsh creation borrow area or dredge pipeline corridor at all times during the Work. The booster pump shall remain floating and not be anchored within five-hundred (500) feet of infrastructure or pipelines throughout the duration of the Work.
- 100.4 Data Sheets: The Data Sheets in Appendices K and L shall be included in the Bid for the dredge and booster pump proposed to perform the Work. The Data Sheets shall serve as certification that the equipment is under the control of the Contractor and is capable of performing the Work. The Contractor may omit information deemed proprietary from the Data Sheets. The Data Sheets shall be updated and submitted to the Engineer prior to mobilizing different equipment.
- 100.5 Ratio of Effort: Sixty percent (60%) of the Contract cost for this bid item shall be paid to the Contractor after mobilization of the hydraulic dredge and booster pump. Forty percent (40%) of the Contract cost for this bid item shall be paid to the Contractor after the hydraulic dredge is removed from the marsh creation borrow area and after Acceptance of the marsh creation area.
- 100.6 Justification of Costs: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit prices in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Item Nos. 2 and 3 as determined by the Engineer. This determination is not subject to appeal by the Contractor.
- 100.7 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 1, "Hydraulic Dredge Mobilization and Demobilization (TS-100)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of Work.

TS-101 DREDGE PIPELINE MOBILIZATION, INSTALLATION AND DEMOBILIZATION

- 101.1 Scope: The Contractor shall furnish all of the labor, equipment and materials necessary to mobilize, install, remove and demobilize the dredge pipeline and associated appurtenances which will be utilized to perform the Work. The Contractor shall utilize the most appropriate type, diameter and length of the dredge pipeline which will efficiently perform the Work. The dredge pipeline shall be subject to inspection by the Engineer or Resident Project Representative at all times. This Bid Item shall exclude the Work and cost associated with all items specified in TS-100, TS-102 and TS-400.
- 101.2 Conveyance to the Marsh Creation Area: The dredge pipeline shall be installed from the marsh creation borrow area to the marsh creation area along the corridors shown on the Plans. Proposed modifications to the corridors shall be submitted in the Work Plan and approved by the Engineer.
- 101.2.1 Floating or Trestle-Supported Pipelines: Dredge pipelines that are floating or supported on trestles shall display appropriate lights at night and in periods of restricted visibility in accordance with Title 33 CFR 88.15 regulations.
- 101.2.2 Submerged Dredge Pipeline: Submerged dredge pipelines shall be secured with anchors that are sufficient to maintain the pipeline on the water bottom at all times. These pipelines shall be marked with fluorescent orange buoys with signs stating "DANGER SUBMERGED PIPELINE" in accordance with local USCG requirements at both ends, changes in the corridor, all pipeline crossings and at one-hundred fifty (150) foot intervals along the dredge pipeline corridor. Signs shall also be installed anywhere the charted depth is reduced more than ten (10) percent. The depth to the top of pipe of any submerged pipeline which crosses a navigation channel shall be submitted to the USCG for Notice to Mariners as specified in SP-16.
- 101.2.3 Beach and Dune Crossing: The dredge pipeline shall be conveyed on top of the existing dune along the headland. Excavation of the dune is prohibited. The Contractor shall install the dredge pipeline along the beach and dune prior to the start of bird nesting season.
- 101.2.3.1 Beach and Dune Crossing Photography: The Contractor shall photograph the beach and dune crossing prior to installing the dredge pipeline, and then again after demobilization of the dredge pipeline.
- 101.2.4 Infrastructure Dredge Pipeline Crossings: The dredge pipeline shall remain floating at all times across all other infrastructure pipelines. The Contractor may submit any alternative option for crossing any of these pipelines in the Work Plan. However, the Contractor shall obtain written approval from the pipeline operator(s) for any option that could cause impacts (weight, vibrations, etc.) to the pipeline(s). The following pipelines exist within the marsh creation borrow areas and dredge pipeline corridor:
- 101.2.4.1 LOOP Pipeline: Three (3) Louisiana Offshore Oil Port (LOOP) Pipelines cross the marsh creation area and the dredge pipeline corridor as shown on the Plans.
- 101.2.4.2 XTO Offshore Inc.: One (1) XTO Offshore Inc. Pipeline crosses the marsh creation area and the dredge pipeline corridor as shown on the Plans.
- 101.2.4.3 TransCanada/ANR Pipeline: One (1) TransCanada/ANR Pipeline crosses the dredge pipeline corridor as shown on the Plans.

- 101.3 Conveyance Within the Marsh Creation Area: The dredge pipeline shall be installed within the marsh creation area between the existing dune and the Chevron pipeline. Proposed modifications to the alignment shall be submitted in the Work Plan and approved by the Engineer. Lateral lines may be installed from the trunk line to the dredge outfall as deemed necessary.
- 101.3.1 Dredge Pipeline Outfalls: Each outfall location of the dredge pipeline shall be placed a sufficient distance away from the instrumented settlement plates and earthen containment dikes such that the integrity of the dikes and instrumented settlement plates are maintained during fill placement.
- 101.3.2 Infrastructure Dredge Pipeline Crossings: All dredge pipeline which crosses infrastructure pipelines within the marsh creation area shall be HDPE (shore) pipe. The dredge pipeline shall remain floating at all times across all other infrastructure pipelines. The Contractor may submit any alternative option for crossing any of these pipelines in the Work Plan. However, the Contractor shall obtain written approval from the pipeline operator(s) for any option that could cause impacts (weight, vibrations, etc.) to the pipeline(s). The following pipelines exist within the marsh creation area:
- 101.3.2.1 Chevron Pipeline: One (1) Chevron Pipeline exists within the marsh creation area as shown on the Plans.
- 101.3.2.2 Arrowhead/Harvest Pipeline: Two (2) Arrowhead/Harvest Pipelines exist within the marsh creation area as shown on the Plans.
- 101.3.2.3 LOOP Pipeline: Three (3) Louisiana Offshore Oil Port (LOOP) Pipelines exist within the marsh creation area as shown on the Plans.
- 101.3.2.4 XTO Offshore Inc.: One (1) XTO Offshore Inc. Pipeline exists within the marsh creation area as shown on the Plans.
- 101.4 Maintenance: The Contractor shall maintain a stable and non-leaking dredge pipeline at all times during dredging and placement of fill. If a leak does occur, dredging shall cease, the Engineer shall be notified, and the leak shall be repaired. If requested by the Engineer, the Contractor will transport the Engineer or Resident Project Representative to the location of the leak for a visual inspection. The Engineer may require the Contractor to survey and remove all material deposited as a result of a pipeline leak at no cost to the Owner.
- 101.5 Removal: The Contractor shall re-grade to pre-project conditions those portions of the water bottom along the dredge pipeline corridor and at all crossings that have been disturbed in excess of +0.5 feet from original grade after removal of the dredge pipeline.
- 101.5.1 Beach and Dune: The beach and dune shall be re-graded to pre-project conditions after removal of the dredge pipeline.
- 101.6 Ratio of Effort: Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after mobilization and installation of all dredge pipeline to the Project Site. Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after complete removal of the dredge pipeline and Acceptance of all of the marsh creation areas.

- 101.7 Justification of Costs: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit price in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Item Nos. 1 and 3 as determined by the Engineer. This determination is not subject to appeal by the Contractor.
- 101.8 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 2, "Dredge Pipeline Mobilization, Installation and Demobilization (TS-101)". Payment shall constitute full compensation for furnishing the labor, equipment, materials and other incidentals related to this item of Work.

TS-102 GENERAL MOBILIZATION AND DEMOBILIZATION

- 102.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to mobilize and demobilize personnel, equipment, supplies, sanitary accommodations, incidentals, offices, buildings and other facilities necessary for the Work at the Project Site, obtain bonds, required insurances and other pre-construction expenses necessary to perform the Work. This Bid Item shall exclude the Work and cost associated with all items specified in TS-100, TS-101, and TS-400.
- 102.2 Arbitrary Mobilization by Contractor: The Owner shall pay for only one mobilization and demobilization effort. Should the Contractor demobilize prior to completing the Work, subsequent remobilization shall be performed at no expense to the Owner.
- 102.3 Equipment: All equipment shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth in the Plans and these Specifications and shall be subject to inspection by the Engineer or Resident Project Representative at all times.
- 102.3.1 Equipment Data Sheet: The Equipment Data Sheet in Appendix K shall be submitted in the Work Plan for all heavy equipment proposed to perform the Work other than the hydraulic dredge (I.E. marsh buggies, tenders, etc.)
- 102.4 Equipment Access: All proposed routes for equipment access are provided in the Plans. Proposed alternative routes shall be provided in the Work Plan. Equipment access shall be limited to open water and the equipment access routes to the greatest extent possible. Any impacts to wetlands or water bottoms located external to the Project Site shall be repaired prior to demobilization at no direct pay. The Contractor shall re-grade those portions of the equipment access routes that have been disturbed in excess of plus one-half (+0.5) feet from original grade. Channel excavation shall only be allowed as specified on the Plans and these Specifications. The Contractor shall not traverse across any pipeline with equipment which could damage the pipeline.
- 102.5 Infrastructure Pipeline Crossings: Equipment shall remain floating at all times when crossing the pipelines found in the vicinity of the Project Area as shown on the Plans. The Contractor shall submit a detailed pipeline crossing plan in the Work Plan for crossing pipelines over land. The following pipelines exist within the Project Area:
- 102.5.1 Chevron Pipeline Crossing: One (1) Chevron pipeline crosses the marsh creation area as shown on the Plans.

- 102.5.2 Arrowhead/Harvest Pipeline Crossing: Two (2) Arrowhead/Harvest pipelines cross the marsh creation area as shown on the Plans.
- 102.5.3 Louisiana Offshore Oil Port (LOOP) Pipeline Crossing: Three (3) LOOP pipelines cross the marsh creation area and dredge pipeline corridor as shown on the Plans.
- 102.5.4 XTO Offshore Inc. Pipeline Crossing: One (1) XTO Offshore Inc. pipeline crosses the marsh creation area as shown on the Plans.
- 102.6 Ratio of Effort: Sixty percent (60%) of the Contract cost for this bid item shall be paid to the Contractor after mobilization of all equipment and materials other than those specified in TS-100 and TS-101 to the Project Site. Forty percent (40%) of the Contract cost for this bid item shall be paid to the Contractor upon final Acceptance of the marsh creation area and weirs, and after all equipment and unused materials have been removed from the Project Site.
- 102.7 Justification of Costs: If the Engineer determines that the unit price for this Bid Item does not bear a reasonable relation to the amount of Work, the Contractor shall be required to justify the unit price in the Application for Payment using cost data. Failure to justify the unit price may result in payment of the estimated cost through commensurate additions or deductions to Bid Items Nos. 1 and 2 as determined by the Engineer. This determination is not subject to appeal by the Contractor.
- 102.8 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)". Payment shall constitute full compensation for furnishing the labor, equipment, materials and other incidentals related to this item of the Work.

TS-210 SURVEYS

- 210.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to perform the Pre-Construction, Process, and As-Built Surveys of the Work in compliance with the Plans and these Specifications. All surveys shall be performed by personnel who are approved by the Engineer and under the direct supervision of a professional engineer or surveyor licensed in the state of Louisiana. The Contractor shall provide the schedule for the surveys and deliverables in the Work Plan.
- 210.2 Notifications to the Engineer: The Contractor shall notify the Engineer a minimum of two (2) working days prior to performing the Pre-Construction, Process and As-built Surveys. The Contractor shall also notify the Engineer immediately after field data collection for each survey is complete. The Owner may stop the respective portions of the Work if the notifications are not made. The Contractor shall not submit a Claim for this type of Work stoppage.
- 210.3 Reference and Control: Survey data shall reference the North American Datum of 1983 (NAD 83), Louisiana South Zone, U. S. Survey Feet, and the North American Vertical Datum of 1988 (NAVD 88), U. S. Survey Feet Geoid 12A-Epoch2010.00. Horizontal and vertical control shall be established by using the CPRA monument provided in Appendix G. Temporary Bench Marks (TBMs) shall be installed as deemed necessary by the Contractor to perform all surveys.
- 210.4 Survey Equipment: Surveys shall utilize conventional RTK surveying methods or an appropriate GNSS or GPS Real Time Network such as the Gulfnet Virtual Real-Time Network (VRS). The Contractor shall utilize appropriate equipment to survey the Work as follows:

- 210.4.1 Topographic Surveys: Topographic survey equipment shall have a minimum vertical and horizontal accuracy of one-tenth (0.1) of a foot. A six (6) inch diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking below ground level. In vegetated areas, the survey rod shall rest among living vegetative stems and be supported by soil containing living vegetative roots. Bathymetric and topographic surveys shall overlap by 25 feet at all interfaces between land and water.
- 210.4.2 Bathymetric Surveys: Bathymetric survey equipment shall have a minimum vertical accuracy of one-tenth (0.1) of a foot $\pm 0.1\%$ of depth. Bathymetric surveys collected on board vessels must be differentially corrected to the referenced datum for tidal fluctuations and vessel pitch, roll and heave. Bathymetric and topographic surveys shall overlap by 25 feet at all interfaces between land and water.
- 210.4.3 Magnetometer Surveys: Magnetometer survey equipment shall have a minimum accuracy of 3 gammas throughout its operational range.
- 210.4.4 Stake Out: Survey stakes utilized for topographic stakeout shall consist of forty-eight (48) inch long survey laths and be composed of #1 grade pine wood or approved equal. Survey Stakes utilized for bathymetric stakeout shall consist of bamboo cane of sufficient length to remain a minimum of two (2) feet above mean water level. Survey stakes shall be removed after completion of the project unless otherwise directed by the Engineer.
- 210.4.5 Grade Stakes: Refer to TS-220
- 210.5 Design Survey: The design survey report in Appendix I is for informational purposes only.
- 210.6 Construction Survey: The construction survey layout for the Work is provided in the Plans and shall be used to perform the Pre-Construction, Process and As-Built Surveys. Any modifications to the construction survey layout shall require approval from the Engineer.
- 210.7 Pre-Construction Survey: The Pre-Construction Survey shall be used to verify the existing conditions at the Project Site, modify the bid items as deemed necessary by the Engineer, and lay out and stake out the Work. The Pre-Construction Survey shall show the existing bathymetry, topography, existing infrastructure and magnetic detections in plan and profile using markers, spot elevations, coordinates, contours, lines and grades. The Pre-Construction Survey shall be consistent with the Construction Survey Layout shown on the Plans and shall include the following items:
- 210.7.1 Quantities: The Pre-Construction Survey shall provide the projected quantities of all the bid items and shall not include contingencies for bulking, losses, etc. The methodology or software that is proposed to be used to calculate quantities shall be provided in the Work Plan.
- 210.7.2 Temporary Bench Marks: The Contractor may install temporary bench marks at any location within the Project Site as necessary to perform the Work. All temporary bench marks shall be repaired and resurveyed if disturbed or damaged during construction.
- 210.7.3 Temporary Aids to Navigation: All temporary aids to navigation shall be surveyed after installation.

- 210.7.4 Existing Infrastructure: All infrastructure (pipelines, power lines, etc.) that is located within one-hundred-fifty (150) feet of the marsh creation borrow areas, earthen containment dikes, earthen containment dike borrow areas, marsh creation area, dredge pipeline corridors and equipment access corridors shall be surveyed and marked at a minimum of fifty (50) foot intervals. The proposed methods for marking the infrastructure shall be included in the Work Plan. Pipelines shall also be probed for depth of cover (top of pipe to existing ground) at fifty (50) foot intervals.
- 210.7.5 Significant Magnetometer Detections: For anomalies that exhibit amplitudes greater than fifty (50) gammas, the depth and source of the anomalies shall be determined by running a thirty (30) foot closed loop path and by probing. The Contractor shall determine if the sources of all anomalies will interfere with the performance of the Work and provide proposed corrective measures in the Progress Schedule. Failure by the Contractor to identify the source of anomalies and provide corrective measures shall not provide grounds for any Claims against the Owner.
- 210.7.6 Grade Stakes: All grade stakes shall be surveyed after installation and two (2) weeks prior to the commencement of dredging. The identification number, existing ground elevation, coordinates and numerical elevation of the top of the gauge sign shall be recorded.
- 210.7.7 Dredge Pipeline Corridor: A topographic/bathymetric and magnetometer survey shall be performed along the entire corridor of the dredge pipeline prior to installation. Three-hundred-fifty-foot-long (350) perpendicular transects shall be surveyed at one thousand (1000) foot intervals along the centerline corridors as shown on the construction survey layout in the Plans. These surveys shall extend from the marsh creation borrow areas to the marsh creation area. Bottom elevations and coordinates shall be recorded along the centerline of the corridor at one hundred (100) foot intervals and at all points of inflection. Bottom elevations and coordinates shall be recorded along the perpendicular transects at twenty-five (25) foot intervals and at all points of inflection. The Contractor shall establish stationing along the entire corridor of the trunk and lateral pipelines. Stationing for the trunk pipeline corridor shall begin at the marsh creation borrow areas. Stationing for the lateral pipeline corridors shall begin at the intersection with the trunk pipeline corridor. The locations of all wye valves shall also be surveyed.
- 210.7.7.1 Beach and Dune: On hundred (100) foot long perpendicular transects shall be surveyed at fifty (50) foot intervals along the centerline corridors crossing the existing beach and dune. Bottom elevations and coordinates shall be recorded along the perpendicular transect at ten (10) foot intervals and at all points of inflection.
- 210.7.8 Equipment Access Corridors: A topographic, bathymetric and magnetometer survey shall be performed along the centerlines of the equipment access corridors shown on the Plans. Perpendicular transects that are fifty (50) foot wide shall be surveyed at one thousand (1000) foot intervals along the centerline corridors as shown on the construction survey layout in the Plans. Bottom elevations and coordinates shall be recorded at one hundred (100) foot intervals along the centerline and all points of inflection. Bottom elevations and coordinates shall be recorded along the perpendicular transects at twenty-five (25) foot intervals and at all points of inflection.

- 210.7.9 Marsh Creation Borrow Areas: A bathymetric and magnetometer survey shall be performed on the borrow areas. Transects shall be consistent with the construction survey layout shown on the Plans. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects and extend fifty (50) feet beyond the boundaries of the marsh creation borrow areas. The projected quantity available for dredging from the borrow areas shall be calculated based on this survey and the design dimensions shown on the Plans.
- 210.7.10 Dewatering Weirs: The existing topography of the dewatering weirs and outfall areas shall be surveyed. Transects shall extend along the centerline of each conduit for each dewatering weir to fifty (50) feet beyond the entrance and one-hundred (100) feet beyond the outfall. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects.
- 210.7.11 Earthen Containment Dikes: A magnetometer survey shall be performed along the centerline of the borrow areas for the earthen containment dikes and internal training dikes. A topographic/bathymetric survey shall also be performed along the centerline of the dikes. Ground elevations and coordinates shall be recorded at one-hundred (100) foot intervals along the centerline or where there is a change in grade greater than plus or minus one-half (± 0.5) feet and at all points of inflection. The projected quantity needed for construction of the dikes shall be calculated based on this survey and the dike dimensions shown in the Plans. Stationing shall be established along the centerline of the dike within the marsh creation area.
- 210.7.11.1 Stake Out: Survey stakes shall be placed at one-hundred (100) foot intervals and at all points of inflection along the centerline of the dike, inside toe of the earthen containment dike, and outside toe of the associated borrow area.
- 210.7.11.2 Earthen Containment Dike Realignment: If the Engineer realigns any portion of the earthen containment dike and associated borrow area, the Contractor shall re-survey the realigned portion of the earthen containment dike and borrow area and recalculate projected quantities.
- 210.7.12 Existing Dune: The topography of the existing dune shall be surveyed along the centerline of the dune crest and extend from the eastern and western boundaries of the Project Site. Ground elevations and coordinates shall be recorded at one-hundred (100) foot intervals along the centerline or where there is a change in grade greater than plus or minus one-half (± 0.5) feet and at all points of inflection.
- 210.7.13 Marsh Creation Area: A topographic/bathymetric and magnetometer survey shall be performed within the marsh creation area. Transects shall be consistent with the construction survey layout shown on the Plans. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects and where there is a change in grade greater than one-half (0.5) feet. Transects shall extend fifty (50) beyond the Arrowhead/Harvest pipeline canal. The projected quantity needed to fill the marsh creation area shall be calculated based on this survey. This survey shall not be performed until the earthen containment dike has been constructed and accepted by the Engineer.

- 210.8 Process Surveys: The Process Surveys shall be used to verify payment, determine Acceptance and modify the bid items as deemed necessary by the Engineer. The Process Surveys shall show the constructed bid items in plan and profile using elevations, coordinates, lines and grades consistent with the Pre-Construction Survey. The Process Surveys shall also include the following items:
- 210.8.1 Quantities: The Process Survey shall show the constructed quantities for each bid item. The calculation methodology used to determine the quantities shall be consistent with the Pre-Construction Survey.
- 210.8.2 Marsh Creation Borrow Area: The bathymetry of those portions of the marsh creation borrow area which have been dredged shall be surveyed consistent with the Pre-Construction Survey. If the Contractor remobilizes to any portion of the borrow area which has been previously dredged, that portion of the borrow area shall be resurveyed before and after it is re-dredged. The dredge quantity (in cubic yards) shall also be calculated.
- 210.8.3 Marsh Creation Area Increments: The topography of each increment within the marsh creation area shall be surveyed one (1) week after marsh fill placement is complete consistent with the Pre-Construction Survey. The in-place fill quantities (in cubic yards) for each increment shall also be calculated and recorded on the daily report.
- 210.8.4 Dewatering Weirs: The following attributes of the primary and secondary dewatering weirs shall be surveyed:
- 210.8.4.1 After Installation:
- 210.8.4.1.1. The identification of each weir within an increment shall include the increment number and weir number;
- 210.8.4.1.2. Location and invert elevations of the entrance and outfall;
- 210.8.4.1.3. Diameter of the weir conduit;
- 210.8.4.1.4. Total wetted perimeter (length) of the entrance on the primary weir;
- 210.8.4.1.5. The location and geometry of the primary weir trench.
- 210.8.4.2 During Placement of Marsh Fill: The invert elevation of the entrance to each secondary weir(s) within each increment that marsh fill is being placed shall be surveyed and recorded on the daily progress report data spreadsheet. Secondary weirs within increments that have been Accepted or being placed with marsh fill are not required to be surveyed.
- 210.8.4.3 Completion of Marsh Fill Placement: The topography of the weir outfall areas within each increment shall be surveyed after placement of marsh fill is complete and shall be consistent with the Pre-Construction Survey.

- 210.8.5 Earthen Containment Dikes: The topography of the dike and associated borrow area shall be surveyed after being fully constructed and prior to placement of the fill material into the marsh creation area. Ground elevations and coordinates shall be recorded for the inside and outside crests and toes of the dikes, the inside and outside troughs of the associated borrow areas at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection. The total length (in feet) and in-place fill quantity (in cubic yards) for the dikes around each marsh creation area shall also be calculated, and the marsh creation area estimated quantity shall be recalculated to include this quantity.

The dikes shall be surveyed every month beginning with placement of fill material into the marsh creation area, and ending with Acceptance of the marsh creation area. Ground elevations and coordinates shall be recorded for the inside crest, inside top at interface with marsh fill, outside crest, and outside (opposite marsh creation) toe of the dikes. These measurements shall be repeated at one-hundred (100) foot intervals along the centerline of the dike and at all points of inflection.

The Engineer may require the Contractor to re-survey portions of the earthen containment dikes and associated borrow areas if any of the following conditions are met:

- 210.8.5.1 Dikes are reworked due to exceedance of the specified tolerances;
- 210.8.5.2 Maintenance is performed on the dikes after Acceptance;
- 210.8.5.3 The time between Acceptance of the dikes and beginning of fill placement into the marsh creation area is sixty (60) calendar days or longer.

The Contractor shall perform a Process Survey and provide updated quantities on all reworked portions of the earthen containment dike and borrow area.

210.8.6 Instrumented Settlement Plates:

- 210.8.6.1 Installation: The elevation and location of the base plate on each incremented settlement plate shall be surveyed during installation in the marsh creation area.
 - 210.8.6.2 Prior to Dredging: The location and elevation of the base plate shall be recorded every thirty (30) days prior to fill placement in the marsh creation area.
 - 210.8.6.3 During Dredging: During marsh fill placement into each increment, the elevation of the top of each instrumented settlement plate within that increment shall be surveyed daily until the increment is accepted. This survey data shall be included in the daily progress report.
- 210.8.7 Grade Stakes: The fill slurry elevation at each grade stake within each increment being filled shall be observed and recorded on a daily basis throughout fill placement and until the marsh creation area is accepted. Check surveys of the grade stakes shall be performed every two (2) weeks during fill placement consistent with the Pre-Construction Survey.
- 210.8.8 Slurry Head Wave: The location of the advancing slurry head wave shall be surveyed daily during fill placement into the marsh creation area. Horizontal coordinates shall be recorded at one-hundred (100) foot intervals along the edge of the head wave. This survey shall be included in the daily progress report KMZ.

- 210.8.9 Dredge Pipeline Outfall: The location for the dredge pipeline outfall shall be surveyed after being positioned or repositioned within the marsh creation area. Horizontal coordinates of the outfall shall be reported on the daily progress report KMZ.
- 210.9 As-Built Survey: The As-Built Survey shall be used to verify final payment and Acceptance of all Work. Accepted Process Surveys may be included as part of the As-Built Survey. The As-Built Survey shall show the constructed bid items in plan and profile using elevations, coordinates, lines and grades consistent with the Process Surveys unless stated otherwise. The As-Built Survey shall also include the following items:
- 210.9.1 Quantities: The As-Built Surveys shall show the constructed quantities for each bid item.
- 210.9.2 Dredge Pipeline Corridor: The bathymetry of the dredge pipeline corridor shall be resurveyed consistent with the Pre-Construction Survey after the dredge pipeline has been removed. Those portions of the corridor which have been reworked due to exceedance of the specified tolerances shall be resurveyed for Acceptance.
- 210.9.2.1 Beach and Dune: The topography of the dredge pipeline corridor which crossed the existing beach and dune shall be resurveyed consistent with the Pre-Construction Survey after the dredge pipeline has been removed.
- 210.9.3 Existing Dune: The topography of the dune used for Southern containment shall be resurveyed consistent with the Pre-Construction Survey.
- 210.9.4 Equipment Access Corridors: The topography/bathymetry of the equipment access corridors shall be resurveyed consistent with the Pre-Construction Survey after all equipment has been demobilized.
- 210.9.5 Marsh Creation Area: Those portions of the marsh creation area which has been reworked due to exceedance of the specified fill elevation tolerances shall be resurveyed for Acceptance.
- 210.9.6 Dewatering Weirs: The dewatering weirs and outfall areas shall be resurveyed consistent with the Pre-Construction Survey after all equipment has been demobilized.
- 210.9.7 Earthen Containment Dikes: The earthen containment dike shall be surveyed after being degraded.
- 210.10 Deliverables: The Contractor shall submit all survey data and drawings to the Engineer for review and Acceptance by the dates specified in SP-3. The Owner may stop the respective portions of the Work if the surveys are not submitted by the specified date. The Contractor shall not submit a Claim for an adjustment to either the Contract Time or Price on any bid item for failure to submit the surveys by the specified date.
- 210.10.1 Survey Data: Survey data shall be provided in Microsoft Excel, or approved equal using the file share platform specified in SP-20. Survey data shall be presented as follows:
- 210.10.1.1 Bathymetry and topography data shall be provided in tables and include separate columns for the transect number, point number, point description, northing coordinate, easting coordinate and elevation. Bathymetric survey data shall be corrected for tidal fluctuations and vessel pitch, roll and heave.

- 210.10.1.2 Magnetometer detections shall be provided in tables and include separate columns for the transect number, point number, northing coordinate, easting coordinate, sensor height, signature type, amplitude and duration. Elevations and depth of cover shall be provided for all pipelines and magnetic detections higher than fifty (50) gammas. Descriptions shall also be provided for the probable causes of all magnetic detections higher than fifty (50) gammas.
- 210.10.1.3 Elevation data for the instrumented settlement plates, grade stakes, earthen containment dikes, slurry, and dewatering weirs shall be provided in separate tables.
- 210.10.2 Survey Drawings: Surveys shall be provided in the latest version of AutoCAD and Adobe Acrobat, or approved equal. All survey drawings shall conform to CPRA drafting standards and be presented as follows:
 - 210.10.2.1 All sheets shall include the Project name, number and seal of a professional engineer or surveyor licensed in the State of Louisiana
 - 210.10.2.2 The location of all earthen containment dikes, marsh fill, survey monuments, temporary benchmarks, grade stakes, instrumented settlement plates, dredge pipeline crossings, and dewatering weirs shall appear in plan view;
 - 210.10.2.3 Transects and profiles shall be shown in plan and profile view and include spot elevations, contours in ± 1.0 foot increments, and mean high and mean low water levels;
 - 210.10.2.4 Magnetometer anomalies and infrastructure (pipelines, power lines, etc.) shall be shown in plan view. Probed infrastructure and magnetic anomalies higher than fifty (50) gammas shall also be shown in profile;
 - 210.10.2.5 All plan views shall be overlaid onto the most recent geo-rectified Digital Orthophoto Quarter Quadrangle aerial color photographs;
 - 210.10.2.6 Revisions such as field or change orders shall be noted, shown in red and be easily distinguishable from the original design.
- 210.11 Acceptance: The Contractor shall request for Acceptance after completion of the Pre-Construction, Process and As-Built Surveys. The Engineer shall determine Acceptance of the Work based on these surveys and conformance to the Plans and Specifications. The Engineer shall be afforded seven (7) working days from the date of receipt to review and determine Acceptance of each survey.
 - 210.11.1 Pre-Construction Survey: The Contractor may mobilize equipment but shall not start construction until Acceptance of the Pre-Construction Survey. The Pre-Construction survey for the dikes must gain Acceptance prior to construction of the dikes.
 - 210.11.2 Process Surveys: Payment for bid items shall not be made until Acceptance of the associated Process Surveys. Those portions of the Work which are required to be reworked, repaired or replaced due to non-compliance with the Plans and these Specifications shall be resurveyed for Acceptance.

- 210.11.3 As-Built Survey: A draft of the As-Built Survey shall be submitted to the Engineer for review prior to the Final Inspection as per SP-3. A final version of the As-Built Survey shall be submitted to the Engineer for Acceptance after the Final Inspection as per SP-3. Final payment for this bid item will not be received until the As-Built Survey has gained Acceptance from the Engineer.
- 210.12 Ratio of Effort: Forty percent (40%) of the Contract cost for this bid item shall be paid to the Contractor upon completion of the Pre-Construction Survey. Forty percent (40%) shall be paid to the Contractor upon Acceptance of all Process Surveys. The remaining twenty percent (20%) shall be paid to the Contractor upon Acceptance of the As-Built Survey.
- 210.13 Measurement and Payment: The Contractor shall submit Applications for Payment after gaining Acceptance. Payment shall be made at the Contract lump sum price for Bid Item No. 4, "Surveys (TS-210)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work.

TS-211 DAILY BIRD ABATEMENT

- 211.1 Scope: The Contractor shall furnish all of the materials, labor, and equipment necessary to monitor and abate all nesting birds within the Work Areas and the required buffer areas required for each bird species around the Work Areas per Appendix N. If no birds are found to be present, no abatement measures are required. The Contractor and subcontractors shall comply with all requirements under the terms and conditions set out in permits or certifications, including but not limited to and USACE 404 and Section 10 permits, Coastal Use Permit (CUP) by Louisiana Department of Natural Resources (LDNR), Water Quality Certification from Louisiana Department of Environmental Quality (LA DEQ), and Bureau of Ocean and Energy Management (BOEM) Memorandum of Agreement if applicable. Additionally, the Contractor shall comply with the provisions in applicable State and Federal laws and regulations, including but not limited to the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, Fish and Wildlife Coordination Act (FWCA), and/or any conditions established by the Louisiana Department of Wildlife and Fisheries (LDWF) and the United States Fish and Wildlife Services (USFWS) provided in Appendix N.
- 211.2 Nesting Bird Abatement Plan: The Contractor shall include in his Work Plan the names and qualifications of the biologists, along with proposed monitoring and abatement actions planned within authorized Work Areas. The Nesting Bird Abatement Plan (NBAP) shall be included in the required Work Plan submittal to the Engineer for review and approval prior to the commencement of Work. The NBAP will include a plan of work, personnel, required materials, work crew coordination activities, and reporting formats for any required monitoring and abatement activities. The Contractor shall meet with the Engineer before the commencement of Work to coordinate and discuss the protocols for monitoring and abatement.
- 211.3 Work Area, Site Buffer, and Nesting Buffer Staking: The Contractor shall carefully mark and stake the boundaries of the Work Area and necessary site buffer areas. Survey stakes and flagging utilized for nesting buffers shall consist of sufficient length to remain a minimum of two (2) feet above mean water level. The Contractor shall submit within the Work Plan the materials proposed for the construction of the markers for approval by the Engineer. The Contractor shall maintain the markers in good order for the duration of construction. All markers shall be removed from the Project Site and properly disposed by the Contractor prior to demobilization.

211.4 Nesting Bird Surveys: To minimize impacts to birds, the Contractor shall employ a qualified biologist to allow for accurate identification of birds encountered during the execution of Work under this Contract. The qualified biologist shall survey the Work Areas and buffers to determine signs of breeding or nesting activities from birds as necessary. The nesting period for bird species varies, however, February 15th through September 15th is a conservative timeframe for consideration. Evidence of forthcoming nesting such as territory defense, courtship behavior, or nest building by any bird species shall be noted. GPS coordinates and a brief description of the location, number, and type of birds involved in the nesting activity shall be recorded. The Contractor shall use this information to determine if and when abatement actions should be implemented, as well as coordinate with the Engineer.

211.5 Abatement Methods for Birds: Abatement methods are recommended to prevent nesting activities. The Contractor shall use the nesting survey information to determine and implement approved abatement actions within the work and buffer areas. There is the potential for nocturnal species; therefore, it is recommended that some or all abatement activities could take place twenty-four (24) hours a day, seven (7) days a week if necessary and allowed. It is advised that passive and/or active abatement techniques be deployed before the onset of the nesting season regardless of whether any active bird use is observed.

All abatement techniques/methods should be coordinated with the Engineer prior to use. To increase the effectiveness of the efforts, a combination of abatement measures should be employed. Additionally, the types of abatement measures, as well as their spatial and temporal deployment, should be changed frequently to reduce the chances that birds become habituated to the abatement measures.

Passive measures such as scare eye balloons or predator decoys may deter birds from nesting. In the event that initiation of nesting birds is discovered, then the Engineer shall be contacted and abatement measures should be altered to include more active methods such as continual human presence. More aggressive methods of hazing (i.e. cannons, flares, etc.) could also be used if necessary. Timing, persistence, organization, and diversity of abatement measures are crucial in deterring birds from establishing active nests. All abatement measures should be conducted by qualified biologists who are familiar with the proposed abatement methods.

In the event that an egg is spotted, the Engineer should be contacted immediately. The required buffer area around the nest shall be established and all activities within the buffer area, including abatement, must cease.

211.6 Nesting Activities: If nesting occurs within the construction or Project Site buffer areas, the Contractor shall, establish a necessary buffer and maintain a crew and visitor notification system including the location of the Project Site showing the bird nesting buffers, approved travel corridors, and any avoidance areas. Notifications should clearly indicate the current status of avoidance areas, any marking schemes, and any other information needed to insure Work continues without disturbance to nesting birds. Observations of any nest(s) by the qualified biologist, maintenance of nest buffers, and notification systems shall remain in place until the nesting activities have ceased.

211.7 Notification: In the event that the Contractor discovers the initiation of bird nesting within 1,000 feet of the Work Area or discovers an egg then the Engineer should be contacted immediately, required nest buffers established, and more aggressive survey and abatement measures should be deployed outside the nest buffer, within the remaining Work Area.

The Contractor should evaluate impacts to construction activities, if applicable, and inform the Engineer of plans to adjust construction activities. For situations that may require temporary adjustments, the Contractor can make a recommendation of what potential encroachment is needed to ensure the birds are not disturbed or harassed from their nest, but still allows the continuation of Work. Justification should be documented and sent to the Engineer as soon as possible.

211.8 Nest Buffer Encroachment: Determination and approval of any nest buffer encroachments are at the Engineer's discretion and will be based on coordination with LDWF and USFWS.

211.9 Deliverables: The Contractor shall submit daily reports for all activities at the Project Site including, but is not limited to, bird surveys, nest locations, weather conditions, abatement activities, manpower, equipment, abatement techniques, etc. In addition, photographs and GPS coordinates shall be provided for each identified nest. Maps should include, but are not limited to, identified bird nests, aerial extent of abatement activities, required buffer of identified bird nests, location of pre-nesting activities, GPS coordinates of bird nests or other pertinent features, etc.

Deliverable of an excel spreadsheet with nest location coordinates, species, individual nest ID, dates of nest discovery, dates of nest examinations including the last date checked, and nest fate shall be provided at the end of each nesting season.

211.10 Measurement and Payment: Payment for daily bird abatement shall be made at the Contract unit price per Each for Bid Item No. 5, "Daily Bird Abatement (TS-211)". Price and payment shall constitute full compensation for furnishing all equipment, labor, and other incidentals related to this item of work.

TS-220 GRADE STAKES

220.1 Scope: Grade stakes shall be installed within the marsh creation fill area in order to measure the elevation of the fill slurry during placement. The Contractor shall furnish all of the materials, labor and equipment necessary to construct, install, maintain and inspect the grade stakes in accordance with the Plans and these Specifications. Construction sequencing of this item shall be included in the Work Plan.

220.2 Materials: Each gauge sign shall be supported by one (1) 2" x 4" untreated pine lumber of sufficient length to be embedded a minimum of six (6) feet below existing grade. The top of the gauge sign shall be fastened flush with the top of the lumber using three (3) #8 galvanized or zinc-coated wood screws and washers. Holes shall be drilled through the lumber and gauge sign before the fasteners are installed.

The gauge sign shall be composed of sheeting applied to a rigid substrate of 4" x 0.120" x 60" fiberglass reinforced thermoset polyester laminate using a pressure sensitive urethane adhesive. The sheeting shall be engineer grade Avery Dennison T1500 that is white in color and reflective. The substrate shall be gray in color, dielectric, non-conductive, acrylic, UV stabilized and possess a tensile strength which exceeds 0.005' aluminum. Border lines shall be applied every one-half (0.5) foot using 1/8" thick Avery 7TS black ink.

- 220.3 Installation: All grade stakes shall be installed prior to placing the fill into the marsh creation area. One (1) grade stake shall be installed near the center of each transect as shown on the construction survey in the Plans. The Contractor may install additional grade stakes as deemed necessary to perform the Work. The grade stakes shall be installed vertically and embedded at least six (6) feet below existing grade. All gauge signs within the marsh creation fill area shall be oriented in the same direction to aid observation.
- 220.4 Maintenance: The grade stakes shall be maintained by the Contractor until the marsh creation increment receives acceptance from the Engineer. Grade stakes shall be repaired and resurveyed if damaged or the plumb angle varies by more than fifteen (15) degrees from vertical.
- 220.5 Inspection: An initial inspection of the grade stakes shall be performed no more than seven (7) days prior to placing dredge material into the marsh creation fill area. Inspections of the grade stakes within each increment shall be performed daily during fill placement within that increment. These inspections shall record the top numerical elevation, distance from the top of the stake to the existing ground (tape down distance), the stake identification number, Northing coordinate and Easting coordinate for each grade stake. A final inspection shall be performed to verify that all stakes have been properly removed. The results of all inspections shall be included in the Daily Progress Reports. The inspections may be witnessed by the Engineer or Resident Project Representative.
- 220.6 Removal: The grade stakes shall be removed prior to demobilization of equipment. The grade stakes shall either be removed in their entirety or cut off at marsh grade. Impacts to the marsh creation fill areas shall be minimized during removal of the grade stakes.
- 220.7 Measurement and Payment: Payment shall be made for the Contract unit price per Each for Bid Item No. 6, "Grade Stakes (TS-220)". Payment shall constitute full compensation for furnished material, labor, equipment and other incidentals related to this item of the Work. No payment shall be made for grade stakes that are rejected or damaged due to fault or negligence of the Contractor.

TS-251 INSTRUMENTED SETTLEMENT PLATES

- 251.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to construct, install, survey and maintain the instrumented settlement plates (ISPs) in accordance with the Plans and these Specifications.
- 251.2 Materials and Fabrication:
- 251.2.1 Instrumentation: All instrumentation for the ISPs shall be procured by the Owner and is not part of the Contract.
- 251.2.2 Base Plate: The base plate for each settlement plate shall be fabricated with a six (6) foot by six (6) foot by one-fourth (1/4) inch thick steel plate. A two and seven-eighths (2-7/8) inch diameter hole shall be drilled or cut through the center of the base plate for installation of the riser pipe and stand pipe.

- 251.2.3 Riser Pipe: The riser pipe for each settlement plate shall be two and one-half (2-1/2) inch nominal diameter Schedule 40 steel pipe that is ten (10) feet long. The riser shall be inserted two (2) feet through the hole in the center of the base plate and welded on both sides of the plate using a 3/16" continuous fillet. The stand pipe shall be one and one-half (1-1/2) inch nominal diameter Schedule 40 steel pipe that is twelve (12) feet long.
- 251.2.4 Instrument Housing: Six (6)-twelve (12) by twelve (12) by three-sixteenth (3/16) steel plates shall be provided as an instrument housing for each ISP. Five (5) of the plates shall be welded together at the edges in the shape of a box as shown on the Plans. The bottom plate of the housing shall be welded to the top of the riser pipe using a one-quarter (1/4) inch continuous fillet. A one and one-half (1-1/2) inch diameter hole shall be drilled into the bottom plate two (2) inches from the riser pipe for conduit access. A one and one-half (1-1/2) inch diameter hole shall be drilled into the center of the top plate for conduit access.
- 251.2.4.1 Instrument Housing Door: One plate shall function as the housing door and shall be affixed to the housing by two (2) steel welded-on hinges. A one-half (1/2) inch diameter hole shall be drilled through the door and adjacent plate located one (1) inch from the bottom corner to allow for a padlock.
- 251.2.5 ISP Number: The instrument housing shall have the identification number of the ISP painted on all four (4) sides using galvanized compound paint that is white in color. The numbering of the ISPs shall increase from west to east within the marsh creation area. The paint may be applied using stencils or other approved application. The number shall be ten (10) inches high.
- 251.2.6 Antennae Extension: One (1) Schedule 40 steel pipe shall be provided as an antennae extension for each ISP. The pipe shall be two (2) feet long and have a nominal diameter of one and one-half (1-1/2) inches. The pipe shall be welded to the center of the top of the instrument housing using a one-quarter (1/4) inch continuous fillet. A steel cap shall be welded onto the top of the pipe. One (1)- one-half (1/2) inch diameter through hole shall be drilled through the center and middle of the pipe.
- 251.2.7 Anchor Pipe: One (1) Schedule 40 steel stand pipe shall be provided to anchor each ISP. The stand pipe shall be ten (10) feet long and have a nominal diameter of one and one-quarter (1-1/4) inches.
- 251.2.8 Zinc Coating: A zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In any case where the zinc coating becomes damaged, the damaged area shall be re-galvanized with a suitable low-melting zinc base alloy as recommended by the American Hot-Dip Galvanizers Association. One coat of vinyl wash primer followed by a red top coat shall be applied over the zinc coat. All painting shall conform to the latest edition of the LA DOTD Standard Specification Section 811 and 1008, or approved equivalent.
- 251.3 Installation: The instrumented settlement plates shall be installed at locations shown on the Plans or as directed by the Engineer within two (2) months after the start of the Contract Time. The anchor pipe shall be driven to a depth determined by the Engineer during installation of each ISP. The Engineer shall install all instrumentation during installation of the ISPs with the assistance of the Contractor.

- 251.4 Monitoring: The Engineer shall be responsible for monitoring the equipment on the ISPs. The Contractor shall provide the Engineer with boat transportation to access ISPs at all times during construction.
- 251.5 Maintenance: The Contractor shall maintain all ISPs until Acceptance of the marsh creation areas. Damages to ISPs shall be immediately repaired or replaced and resurveyed by the Contractor at no expense to the Owner.
- 251.6 Ratio of Effort: Ninety percent (90%) of the Contract cost for this bid item shall be paid to the Contractor after installation of the instrumented settlement plates. The remaining ten percent (10%) shall be paid to the Contractor upon Acceptance of the marsh creation area.
- 251.7 Measurement and Payment: Payment shall be made for the Contract unit price for Each for Bid Item No. 7, "Instrumented Settlement Plates (TS-251)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of Work. No payment shall be made for instrumented settlement plates that are rejected or damaged due to fault or negligence by the Contractor.

TS-300 EARTHEN CONTAINMENT DIKES

- 300.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to construct an earthen containment dikes (Dike) around the perimeter of the marsh creation area in accordance with these Specifications, the Plans, or otherwise directed by the Engineer. Construction sequencing of this item shall be included in the Work Plan.
- 300.2 Equipment: Dike construction and borrow area excavation shall be performed using mechanical equipment. The Equipment Data Sheet in Appendix K shall be submitted in the Work Plan for all mechanical equipment that is proposed to perform the Work. The mechanical equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and be subject to inspection by the Owner or Engineer throughout the performance of the Work.
- 300.3 Construction: The Dike shall be constructed using borrow that is excavated from either the interior or the exterior of the marsh creation area as shown on the Plans.
- 300.3.1 Borrow Properties: A geotechnical investigation of the marsh creation area was performed by the Engineer and is provided in Appendix H of the Specifications. The in-situ soil properties may vary along the alignment of the dike. All unsuitable organic debris such as logs, stumps, snags, etc. greater than two (2) inches in diameter or two (2) feet in length that is encountered in the dike borrow area shall remain and not be used to construct the dikes. All unsuitable inorganic debris such as tires, scrap, etc. greater than five (5) pounds that is encountered in the dike borrow areas shall be disposed off-site in an approved waste disposal facility.
- 300.3.2 Alignment: The Dike shall be aligned around the perimeter of the marsh creation area except along the southern boundary where the existing sand dune shall serve as containment. The borrow area shall be aligned along the Dike and beyond the minimum offset distance shown on the Plans.

- 300.3.3 Geometry: The Dike shall be constructed within the tolerances and to the lines, grades, and elevations shown on the Plans. The borrow area shall be excavated within tolerances and to the lines, grades, and elevations shown on the Plans. Any portion of the constructed dike and borrow area that does not comply with the specified geometry shall not be accepted by the Engineer until being reworked and resurveyed by the Contractor.
- 300.3.3.1 Crest Elevation Tolerance: The Contractor is allowed to construct the Dike to any crest elevation as long as it is within the elevation tolerance shown on the Plans. The Contractor shall determine the optimal crest elevation based on the projected concentration of the dredge slurry. The Contractor shall provide for a minimum freeboard of one (1) foot from the projected slurry elevation to the crest elevation of the Dike.
- 300.3.4 Construction: The Dike shall be constructed in a minimum of two (2) lifts to the geometries and within the tolerances shown on the Plans. Construction of the earthen containment dike may require double handling of material. Depending on the predicted concentration of the dredge slurry, the Contractor may construct a third lift to the geometry and within the tolerances shown on the Plans.
- The Contractor may construct each lift of the Dike in individual segments. The lengths and locations of the segments shall be provided in the Work Plan. Each lift of the Dike must achieve compliance with the following requirements:
- 300.3.4.1 Process Survey of each lift and each segment shall be performed and approved by the Engineer;
- 300.3.4.2 The Contractor shall delay the construction of each subsequent lift of the Dike by a minimum of thirty (30) calendar days after completion of the previous lift. The Engineer will install piezometers into portions of the Dike during construction to monitor the soil strength gain in each lift. If the Engineer determines that the necessary strength gain is achieved less than 30 days after construction of each lift, the Engineer shall notify the Contractor that construction of the subsequent lift can commence.
- 300.3.4.3 Those segments of the Dike that do not comply with the specified geometries and tolerances shall be reworked and resurveyed for compliance.
- 300.3.5 Pipeline Crossings: Borrow shall not be excavated within the fifty (50) feet of existing pipelines. The dike shall be constructed in a manner such that impacts to pipelines are minimized. Construction at the pipeline crossings may require double handling of borrow.
- 300.4 Internal Training Dikes: The Contractor shall construct internal training dikes at the locations shown on the Plans and as necessary as deemed by the Contractor. The geometry of the internal training dikes shall be consistent with the lines, grades and elevations shown on the Plans.
- 300.5 Maintenance: The specified geometry of the Dike shall be maintained throughout construction of the marsh creation area at no expense to the Owner. Maintenance on the Dike shall be required for nonconformance based on inspections or Process Surveys.
- 300.6 Dike Failures: The Contractor shall immediately stop dredging and placement of marsh fill, notify the Engineer and initiate repairs if any portion of the Dike fails during construction. The Contractor shall include a detailed protocol for reporting and repairing failures of the Dike in the Work Plan.

- 300.7 Gapping: Portions of the Dike shall be gapped after Acceptance of the marsh creation area and prior to demobilization. The gaps shall be twenty-five (25) feet long and spaced at five-hundred (500) foot intervals along the alignment, or as directed by the Engineer. Gaps shall be constructed by degrading the crown elevation of the dike to the construction marsh creation elevation for the associated marsh creation area. Spoil shall be spread evenly on top of the adjacent dike borrow area.
- 300.8 Acceptance: The Contractor shall request for Acceptance of the Dike after construction and approval of the As-Built Survey.
- 300.9 Ratio of Effort: Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after construction and approval of the Process Survey of the first lift. Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after Acceptance of the constructed dike.
- 300.10 Measurement and Payment: Payment shall be made at the Contract unit price per Linear Foot for Bid Item No. 8, "Earthen Containment Dikes (TS-300)". Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of the Work. The Contractor may request partial payment on a monthly basis based on the linear feet of dike constructed.

TS-301 PRIORITY EARTHEN DIKE

- 301.1 Scope: The Contractor shall furnish all of the material, labor and equipment necessary to construct the priority earthen dike in accordance with these Specifications, the Plans, or otherwise directed by the Engineer. Construction sequencing of this item shall be included in the Work Plan.
- 301.2 Equipment: Priority earthen dike construction and borrow area excavation shall be performed using mechanical equipment. The Equipment Data Sheet in Appendix K shall be submitted in the Work Plan for all mechanical equipment that is proposed to perform the Work. The mechanical equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and be subject to inspection by the Owner or Engineer throughout the performance of the Work.
- 301.3 Construction: The base of the priority earthen dike shall be constructed using sand excavated from the priority earthen dike borrow area. The remainder of the priority earthen dike shall be constructed using borrow excavated from the exterior of the marsh creation area.
- 301.3.1 Borrow Properties: A geotechnical investigation of the marsh creation area is provided in Appendix H of the Specifications. The in-situ soil properties may vary along the alignment of the Dike. All unsuitable organic debris such as logs, stumps, snags, etc. greater than two (2) inches in diameter or two (2) feet in length that is encountered in the dike borrow area shall remain and not be utilized to construct the dikes. All unsuitable inorganic debris such as tires, scrap, etc. greater than five (5) pounds that is encountered in the dike borrow areas shall be disposed off-site in an approved waste disposal facility.

- 301.3.1.1 Sand Base: The Contractor shall excavate sand from the priority earthen containment dike borrow area shown on the Plans, or as directed by the Engineer. Overburden material shall be temporarily stockpiled on either side of the sand borrow area and returned to the borrow area after the sand is excavated. The Contractor shall excavate borrow material that has a majority fraction of sand. The Engineer shall observe the excavation to ensure the borrow material contains a majority fraction of sand and is suitable for construction of the containment dike. The borrow material shall be transported using floating equipment to the priority earthen dike.
- 301.3.2 Geometry: The priority section of the Dike shall be constructed within the tolerances and to the lines, grades, and elevations shown on the Plans. The borrow area shall be excavated within the tolerances and to the lines, grades, and elevations shown on the Plans. Any portion of the constructed dike and borrow area that does not comply with the specified geometry shall not be accepted by the Engineer until being reworked and resurveyed by the Contractor
- 301.3.2.1 Crest Elevation Tolerance: The Contractor shall construct the priority earthen dike to the elevations and tolerances of the earthen containment dikes. The Contractor shall provide for a minimum freeboard of one (1) foot from the projected slurry elevation to the crest elevation of the priority earthen dike.
- 301.3.3 Sand Base: The Contractor shall place sand along the alignment of the priority earthen dike to the base elevation shown on the Plans.
- 301.3.4 Construction Lifts: The priority section of the Dike shall be constructed on top of the sand base using the same methodology as the earthen containment dikes specified in TS-300.
- 301.4 Maintenance: The geometry of the priority earthen dike shall be maintained throughout construction of the marsh creation area at no expense to the Owner. Maintenance on the priority earthen dike shall be required for nonconformance based on inspection or Process Surveys.
- 301.4.1 Dike Failures: The Contractor shall immediately notify the Engineer and initiate repairs if any portion of the priority earthen dike fails during construction. The Contractor shall include a detailed protocol for reporting and repairing failures of the priority earthen dike in the Work Plan.
- 301.5 Gapping: Portions of the priority earthen dike shall be gapped after Acceptance of the marsh creation area and prior to demobilization. The gaps shall be twenty-five (25) feet long and spaced at five-hundred (500) foot intervals along the alignment, or as directed by the Engineer. Gaps shall be constructed by degrading the crown elevation of the dike to the construction marsh creation elevation for the associated marsh creation area. Spoil shall be spread evenly on top of the adjacent dike borrow area.
- 301.6 Acceptance: The Contractor shall request for Acceptance of the priority section of the priority earthen dike after construction of all lifts and approval of the As-Built Survey.
- 301.7 Ratio of Effort: Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after construction and approval of the Process Survey of the first lift. Fifty percent (50%) of the Contract cost for this bid item shall be paid to the Contractor after Acceptance of the constructed dike.

- 301.8 Measurement and Payment: Payment shall be made at the Contract Lump Sum price for Bid Item No. 9, "Priority Earthen Dike (TS-301)." Payment shall constitute full compensation for furnishing the labor, equipment and other incidentals related to this item of Work.

TS-400 HYDRAULIC DREDGING AND MARSH FILL

- 400.1 Scope: The Contractor shall furnish all of the materials, labor and equipment necessary to hydraulically dredge the marsh creation borrow areas and place the dredge quantity as shown in the Plans into the marsh creation area in accordance with these Specifications. The borrow material must be dredged, conveyed and placed in such a manner to ensure that negative impacts caused by the project are minimized. This section shall include the operation and maintenance of the hydraulic dredge and booster pump. Construction sequencing of this item shall be included in the Work Plan.
- 400.2 Borrow Area Dredging: The Contractor shall dredge the marsh creation borrow area using the hydraulic dredge specified in TS-100 and transfer the dredged material to the marsh creation area using the dredge pipe specified in TS-101.
- 400.2.1 Borrow Material: The material to be dredged from the borrow areas may consist of gravel, sand, silt, clay, muck or shell. Soil boring logs for the borrow area are provided in Appendix H. Additional materials such as logs, stumps, snags, tires, scrap and other debris which are encountered shall be removed and properly disposed of by the Contractor.
- 400.2.2 Progression: The Contractor shall dredge all of the Contract quantity from either marsh creation borrow area shown on the Plans.
- 400.2.3 Cut and Fill Sequence: The Contractor shall provide a proposed cut and fill sequence for each marsh creation borrow area and each increment within the marsh creation area. All proposed modifications to the sequence shall require prior approval from the Engineer.
- 400.2.4 Dredging Limits: The marsh creation borrow area shall be dredged in conformity with the lines, grades, and elevations shown on the Plans. The Contractor shall immediately notify the Engineer if an infraction of borrow area limits does occur. The Contractor shall also pay all permit fines and other expenses related to dredging beyond the limits of the marsh creation borrow areas.
- 400.2.5 Dredge Location Control: The Contractor is required to utilize a differential global positioning system (DGPS) to accurately and continuously track and record the position and depth of the dredge and cutter head while dredging the borrow area. The position of the dredge and cutter head shall be recorded in Louisiana South State Plane Coordinate System, NAD 1983 with an accuracy of fifteen (15) feet. The Engineer or Project Representative shall be allowed to board the dredge and observe dredging operations from the bridge. The Contractor is required to calibrate the DGPS equipment per manufacturer's specifications. The position data and calibration records shall be included in the Daily Progress Reports. The proposed type of positioning equipment shall be included in the Work Plan.
- 400.2.6 Slurry Specific Gravity: The Contractor shall maintain the dredge slurry at the highest specific gravity (density) possible during dredging operations in order to not exceed the crest elevation of the earthen containment dikes.

- 400.2.7 Slurry Production Rate: The production of slurry by the hydraulic dredge shall be maintained at a rate such that the crest elevation of the earthen containment dikes is not exceeded.
- 400.3 Marsh Creation: The Contractor shall convey the material dredged from the marsh creation borrow areas into the marsh creation area. Placement shall only occur after construction and Acceptance of all earthen containment dikes.
- 400.3.1 Marsh Fill Quantity: The Contract quantity for marsh fill shall be uniformly placed within the marsh creation area. The Owner reserves the right to adjust the Contract quantity plus or minus (+/-) twenty-five (25) percent at the Contract Unit Price.
- 400.3.2 Marsh Fill Elevation and Tolerance: Dredged material shall be placed into the marsh creation fill areas after construction and Acceptance of the earthen containment dikes. The constructed marsh fill elevation shall be +3.0 ft. NAVD88 with a tolerance of plus or minus (\pm) one (1) foot. The Owner reserves the right to adjust the constructed marsh fill elevation or tolerances based on field observations.
- 400.3.3 Marsh Creation Area Increments: The marsh creation area is divided into four (4) increments that are approximately two (2) miles in length from west to east as shown on the Plans.
- 400.3.4 Progression: Placement of the marsh fill shall progress in an easterly direction starting in Increment One (1) and ending in Increment Four (4).
- 400.3.5 Instrumented Settlement Plates: The instrumented settlement plates will continuously measure the characteristics of the dredge slurry. The Engineer shall monitor this data real-time via a cloud-based internet platform. In order to aid the Contractor with attaining the Contract quantity for marsh fill, the Engineer will inform the Contractor when the optimum constructed marsh fill elevation has been attained within the tolerance range through monitoring of the ISPs.
- 400.3.6 Dike Breaches, Overtopping, and Unregulated Releases: The Contractor shall cease dredging operations if dredge slurry breaches or overtops the Dike or Weir. The Contractor shall be responsible for the restoration of all damages to adjacent wetlands or water bodies.
- 400.4 Acceptance: The Contractor shall request for Acceptance after construction of the marsh creation area. Acceptance shall be determined from the Process Surveys and compliance with the lines, grades, elevations, and tolerances shown on the Plans. The Engineer may require the addition or removal of material dredged or placed beyond the specified tolerances.
- 400.5 Measurement and Payment: Payment shall be made at the Contract unit price per cubic yard (Dredged from the borrow area / Payment on the Cut) for Bid Item No. 10, "Hydraulic Dredging and Marsh Fill (TS-400)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of the Work. The Contractor may request partial payment on the monthly basis based on the cubic yards dredged from the marsh creation borrow area(s).

TS-510 WEIRS

- 510.1 **Scope:** The Contractor shall furnish all of the materials, labor and equipment necessary to fabricate, install, monitor and manage weirs in the marsh creation area. The weirs shall be operated to ensure that water decantation, solids detention and effluent quality are maximized. Location and sequencing of weirs during construction and operation shall be included in the Work Plan.
- 510.2 **Fabrication:** Primary and secondary weirs shall be fabricated in accordance with these Specifications. Any proposed modifications shall be approved by the Engineer.
- 510.2.1 **Primary Weirs:** Primary weirs shall be rectangular metal-framed inlets or half-cylindrical corrugated metal pipe risers. Wooden slats shall be slotted horizontally into the inlets to control the invert elevation. The lumber slats shall be sized such that the invert elevation can be adjusted in increments of six (6) inches.
- 510.2.2 **Primary Weir Length:** The total weir length (I.E., wetted perimeter) for all weirs shall comply with the following minimum values during construction such that the approach velocity is maintained below two (2) feet per second:

Dredge Pipe Diameter (in)	Minimum Total Weir Length (ft)
18	50
24	100
30	150

The secondary weirs shall not be accounted for in the required minimum weir length.

- 510.2.3 **Secondary Weirs:** Secondary weirs shall be steel pipe having a maximum diameter of eighteen (18) inches and sufficient length to penetrate through the dike. The pipe shall be slotted twelve (12) inches deep within six (6) inches of the end of the pipe. The slot shall be sufficient width to allow for two (2) inch thick lumber slats to be installed to adjust the invert elevation in increments of six (6) inches.
- 510.3 **Installation:** Weirs shall be installed and operable prior to placement of slurry into the marsh creation area. Decanted water shall only be allowed to discharge from the marsh creation area through the weirs.
- 510.3.1 **Primary Weir:** The primary weir shall be installed within the earthen containment dike along the eastern boundary of the marsh creation area north of the dune and south of the right-of-way of the Chevron Pipeline.
- 510.3.1.1 **Drainage Trench:** The Contractor shall maintain a continuous drainage path of ponded water from the marsh creation area to the primary weir during dredging operations. The drainage path shall be constructed and maintained by mechanical excavation. The proposed geometry of the drainage trench shall be provided in the Work Plan and approved by the Engineer. The drainage trench shall not be located within the right-of-way of the Chevron Pipeline.

- 510.3.1.2 Filter: Clogging of the primary weir by organics and debris shall be prevented at the entrance through the installation of a weir filter. The primary weir filter shall consist of a contiguous set of cattle gates, fences, etc. The primary weir filter shall surround the full perimeter of the entrance to the weir inlet at a minimum offset distance of ten (10) feet from the inlet. The primary weir filter shall not be located within the right-of-way of the Chevron Pipeline.
- 510.3.2 Secondary Weirs: Secondary weirs may be installed within the earthen containment dike along the northern boundary of the marsh creation area as deemed necessary by the Contractor. Secondary weirs shall not be installed within the earthen containment dike along the eastern or western boundaries of the marsh creation area. The obvert of the secondary weirs shall be set at the top of the earthen containment dike.
- 510.4 Operation, Monitoring and Maintenance: The weirs shall be continuously operated, monitored and maintained and adjusted to control the release of ponded water and the resuspension and withdrawal of settled solids. All adverse consequences during dredging operations that are caused by failure to monitor, operate and maintain the weirs shall be rectified by the Contractor at no cost to the Owner.
- 510.4.1 Monitoring: All weirs shall be continuously monitored for proper operation, damage and clogging. The invert elevation of the primary weir shall be recorded on the Daily Progress Report data spreadsheet.
- 510.4.2 Operations: The primary weir shall be operated with the invert set at two (2.0) feet below the crest elevation of the earthen containment dike during placement of slurry into the marsh creation area. All secondary weirs shall remain closed during placement of slurry into the marsh creation area. The invert elevation of the weirs may only be lowered during emergencies such as dike breaches or extreme precipitation events, or to decant water from the marsh creation area after placement of slurry has ceased.
- 510.4.3 Maintenance: Clogs and debris shall be immediately removed from the primary weir such that the slurry elevation and water level in the marsh creation area do not increase. All damages to the primary weir shall be immediately repaired.
- 510.5 Measurement and Payment: Payment for dewatering weirs shall be included in the Contract Lump Sum price for Bid Item No. 3, "General Mobilization and Demobilization (TS-102)". Payment shall constitute full compensation for furnishing the material, labor, equipment and other incidentals related to this item of Work.

END OF PART III – TECHNICAL SPECIFICATIONS

APPENDIX A: REQUEST FOR INFORMATION FORM

APPENDIX B: CHANGE ORDER FORM

CHANGE ORDER NO. __

OWNER: State of Louisiana, Coastal Protection & Restoration Authority
CONTRACTOR
PROJECT: Caminada Headland Back Barrier Marsh Creation Project (BA-0171)
FILE NO: _____
SOLICITATION NO: _____
ENGINEER: Adam Ledet

The following changes are hereby proposed to be made to the Contract Documents:

•

Description: See attached summary.

Attachments (list documents supporting change):

•

Change in Contract Price		Change in Contract Time	
Original Contract Price		Original Contract Time (calendar days)	
Net Increase /(Decrease) from previous Change Orders		Net Increase /Decrease from previous Change Orders (days)	
Contract Price prior to this Change Order		Contract Time prior to this Change Order (calendar days)	
Net Increase/(Decrease) of this Change Order		Net Increase (Decrease) of this Change Order (days)	
Contract Price with this Change Order		Contract Time with this Change Order (calendar days)	

RECOMMENDED:

By: _____
 Engineer

Date: _____

RECOMMENDED:

By: _____
 CPRA Construction Manager

Date: _____

ACCEPTED:

By: _____
 Contractor

Date: _____

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171)

SUMMARY OF CHANGE ORDER NO: _____

ITEM NO.	DESCRIPTION	UNIT	ORIGINAL QUANTITY	ADJUSTED QUANTITY	UNIT PRICE	AMOUNT OVERRUN	AMOUNT UNDERRUN
Net Increase of this Change Order							

Justification:

-

No additional contract time is requested to accomplish the work for the change order.

APPENDIX C: RECOMMENDATION OF ACCEPTANCE FORM

❖ NOT FOR RECORDATION PURPOSES ❖

RECOMMENDATION OF ACCEPTANCE

TO: Coastal Protection and Restoration Authority
150 Terrace Avenue, Suite 100
Baton Rouge, LA 70802

FROM: _____

Design Firm Name and Address

DATE: _____

PROJECT NAME & NUMBER: _____

SITE CODE: _____ STATE ID: _____ CFMS: _____

CONTRACTOR: _____

ORIGINAL CONTRACT AMOUNT: \$ _____

FINAL CONTRACT AMOUNT: \$ _____

DATE OF ACCEPTANCE: _____

CONTRACT DATE OF COMPLETION: _____

NUMBER OF DAYS (OVERRUN) (UNDERRUN) (As of Acceptance Date) _____

LIQUIDATED DAMAGES PER DAY STIPULATED IN CONTRACT \$ _____

VALUE OF PUNCH LIST \$ _____ (*Attach
punch list*)

Signed: _____
DESIGNER

FOR USE OF PROJECT MANAGER:

Signed: _____
PROJECT MANAGER

❖ NOT FOR RECORDATION PURPOSES ❖

APPENDIX D: LANDRIGHTS MEMORANDUM

(Provided electronically at <ftp://ftp.coastal.la.gov/BA-171/Appendices/>)

APPENDIX E: PERMITS OBTAINED BY OWNER



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

September 26, 2019

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 June 5, 2019, covering additional dredge and fill activities to implement CWPPRA Project BA-0171 (Caminada Headland Back Barrier Marsh Creation Project) and will now combine the adjoining Caminada Headland Back Barrier Marsh Creation Increment 1 Project (BA-193) as one project, 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, from the District Commander at New Orleans, Louisiana, to dredge and deposit earthen material to implement CWPPRA Project BA-0171 as described above. These drawings will supersede your original 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:

MAYER.MAR: Digitally signed by
MAYER.MARTIN.STEV
TIN.STEVEN, EN.1230824947
1230824947 Date: 2019.09.26
11:40:51 -05'00'

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

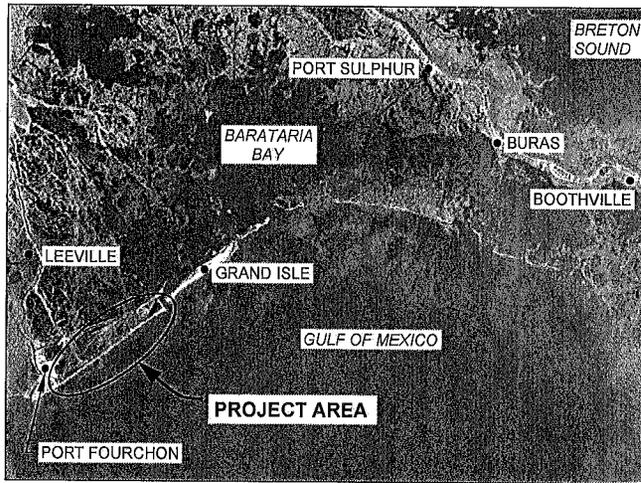
Enclosures

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PROJECT LAYOUT
3	BORROW AREA LAYOUT
4-4A	MARSH CREATION AREA LAYOUT
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

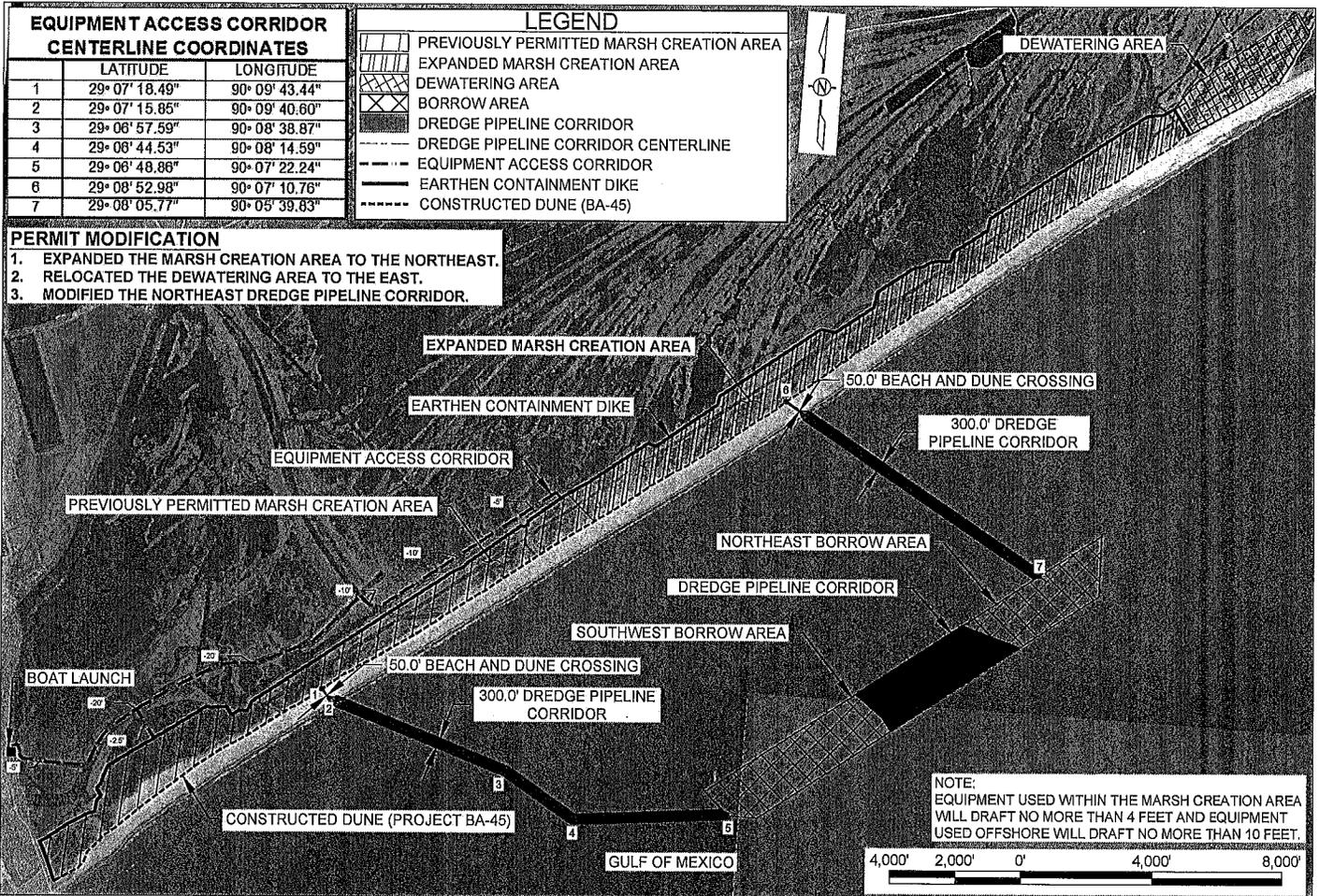
**CAMINADA HEADLAND BACK
BARRIER MARSH CREATION PROJECT**
BA-0171
LAFOURCHE AND JEFFERSON PARISH, LOUISIANA



PERMIT MODIFICATION

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

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
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018 (REV. 4.2019) SHEET 1 OF 10



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° 08' 57.59"	90° 08' 38.87"
4	29° 08' 44.53"	90° 08' 14.59"
5	29° 08' 48.86"	90° 07' 22.24"
6	29° 08' 52.98"	90° 07' 10.76"
7	29° 08' 05.77"	90° 05' 39.83"

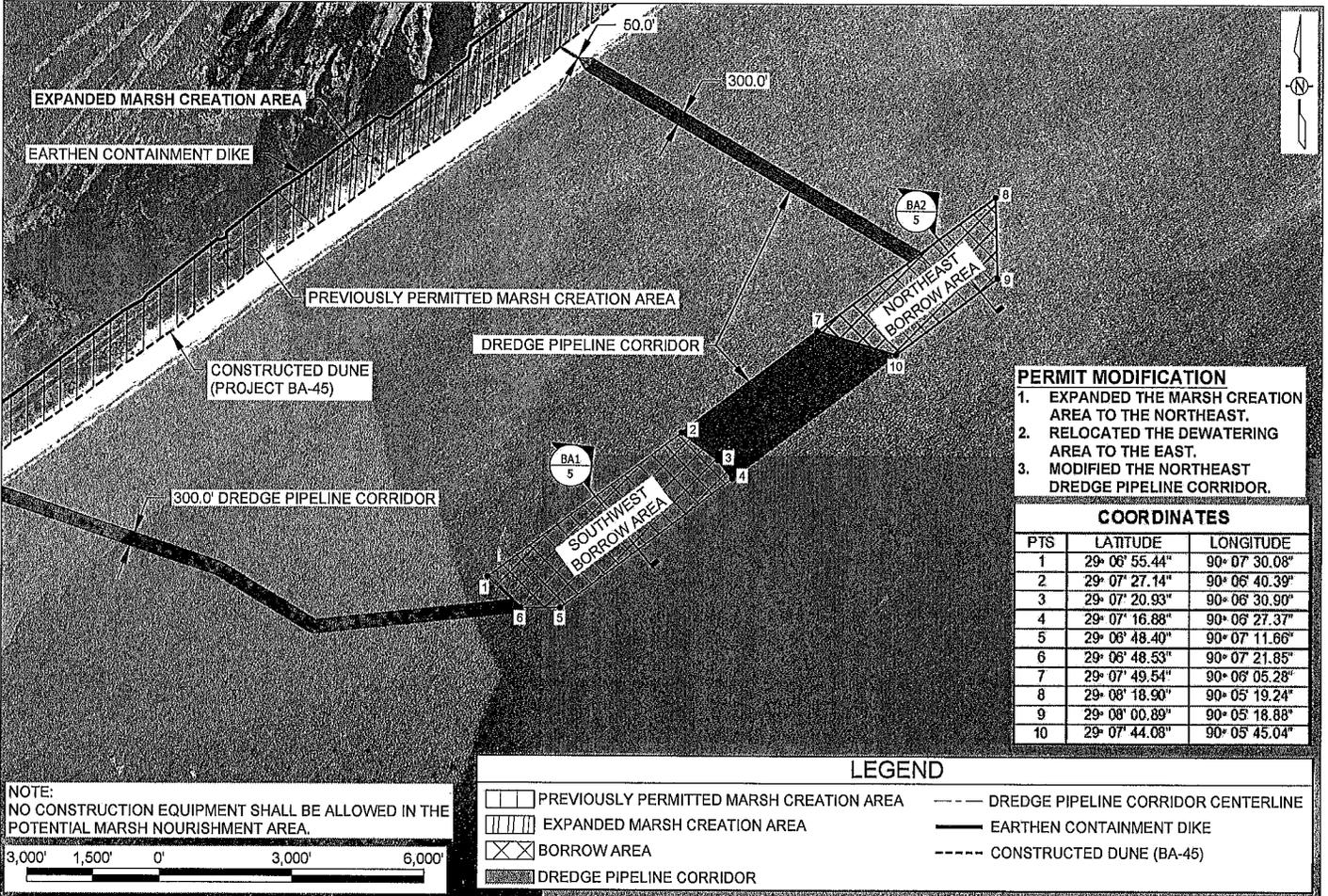
LEGEND

[Hatched pattern]	PREVIOUSLY PERMITTED MARSH CREATION AREA
[Cross-hatched pattern]	EXPANDED MARSH CREATION AREA
[Dotted pattern]	DEWATERING AREA
[Diagonal lines]	BORROW AREA
[Thick solid line]	DREDGE PIPELINE CORRIDOR
[Thin dashed line]	DREDGE PIPELINE CORRIDOR CENTERLINE
[Dashed line]	EQUIPMENT ACCESS CORRIDOR
[Thick solid line]	EARTHEN CONTAINMENT DIKE
[Dotted pattern]	CONSTRUCTED DUNE (BA-45)

- 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.

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
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018 (REV. 4.2019)
		APPROVED BY: S. HAYNES, P.E.	SHEET 2 OF 10

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.



- 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.

COORDINATES		
PTS	LATITUDE	LONGITUDE
1	29° 06' 55.44"	90° 07' 30.08"
2	29° 07' 27.14"	90° 06' 40.39"
3	29° 07' 20.93"	90° 06' 30.90"
4	29° 07' 16.88"	90° 06' 27.37"
5	29° 06' 48.40"	90° 07' 11.66"
6	29° 06' 48.53"	90° 07' 21.85"
7	29° 07' 49.54"	90° 06' 05.28"
8	29° 08' 18.90"	90° 05' 19.24"
9	29° 08' 00.89"	90° 05' 18.88"
10	29° 07' 44.08"	90° 05' 45.04"

LEGEND

- PREVIOUSLY PERMITTED MARSH CREATION AREA
- EXPANDED MARSH CREATION AREA
- BORROW AREA
- DREDGE PIPELINE CORRIDOR
- DREDGE PIPELINE CORRIDOR CENTERLINE
- EARTHEN CONTAINMENT DIKE
- CONSTRUCTED DUNE (BA-45)

NOTE:
NO CONSTRUCTION EQUIPMENT SHALL BE ALLOWED IN THE POTENTIAL MARSH NOURISHMENT AREA.

3,000' 1,500' 0' 3,000' 6,000'

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

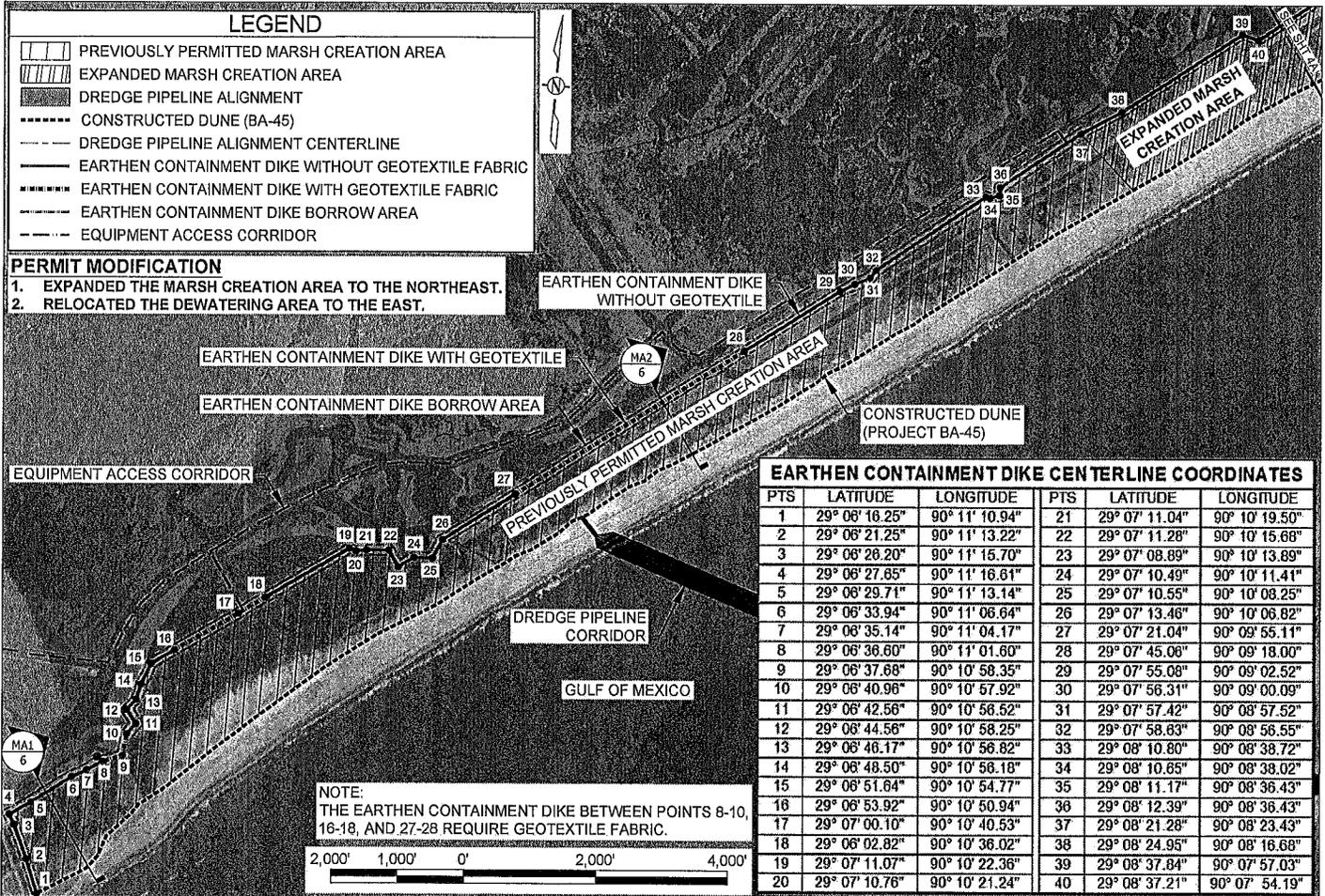
STATE PROJECT NUMBER: BA-0171

APPROVED BY: S. HAYNES, P.E.

BORROW AREA LAYOUT

DATE: JUNE 2018 (REV. 4.2018)

SHEET 3 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

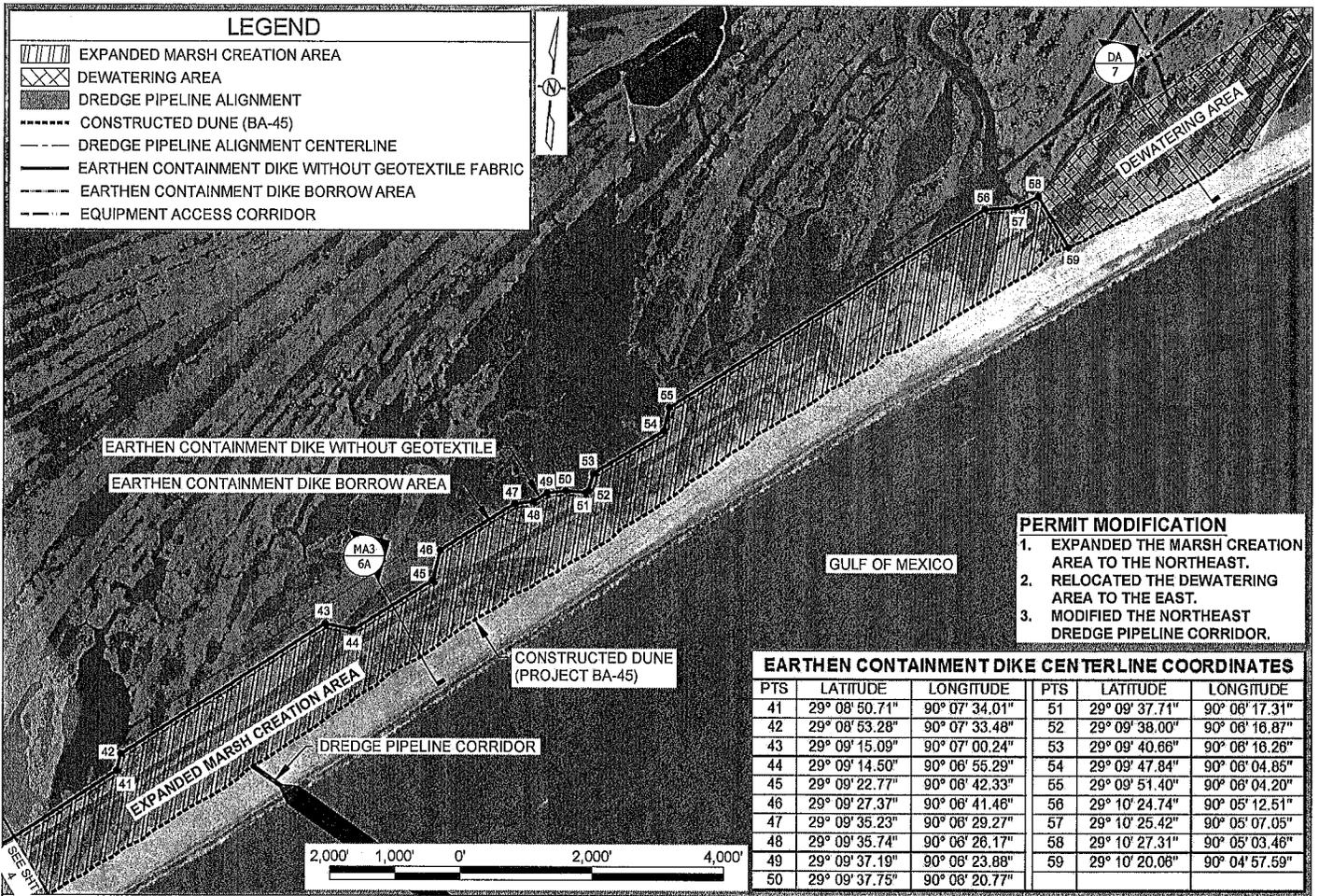
STATE PROJECT NUMBER: BA-0171

APPROVED BY: S. HAYNES, P.E.

MARSH CREATION AREA LAYOUT

DATE: JUNE 2018 (REV. 4.2019)

SHEET 4 OF 10

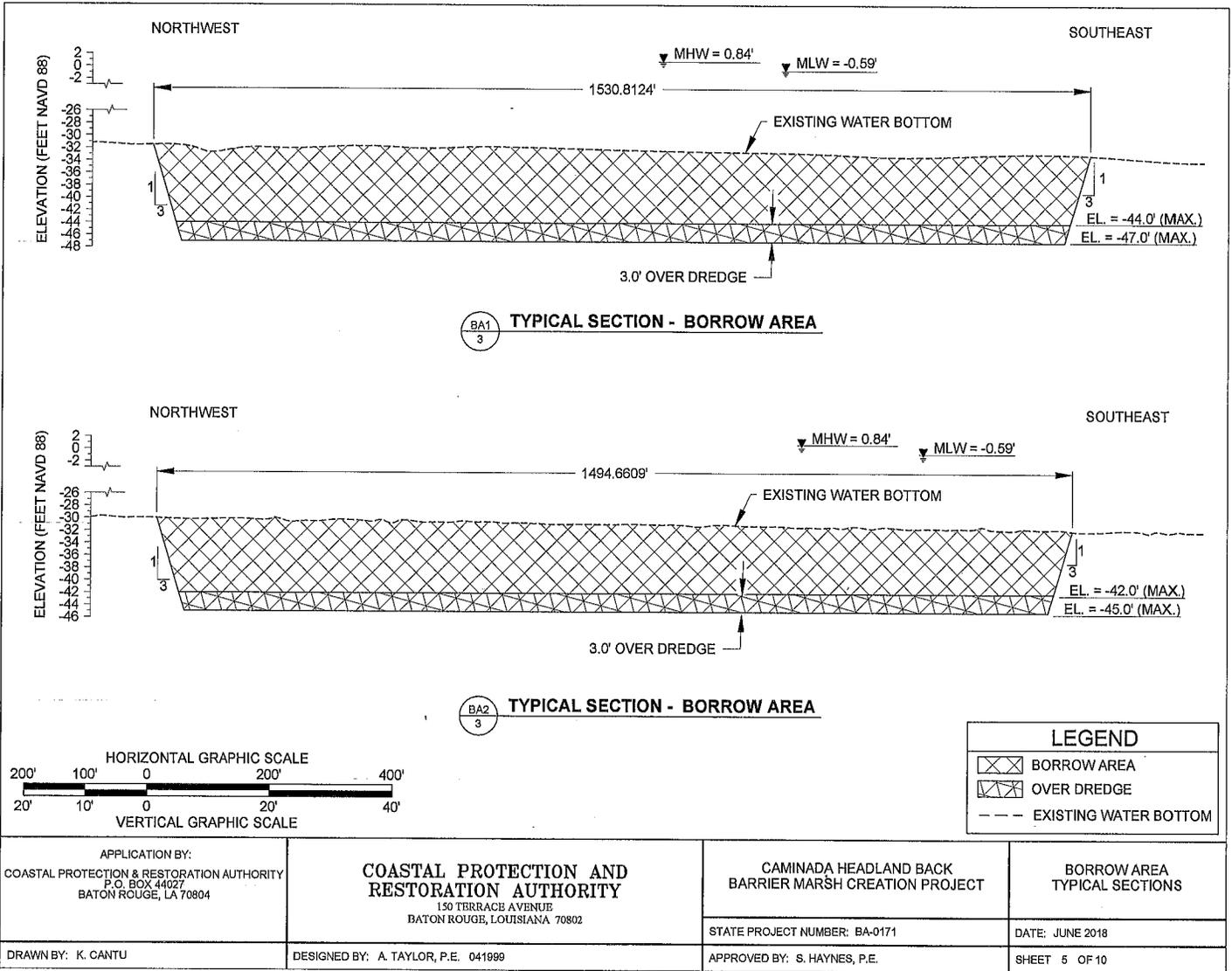


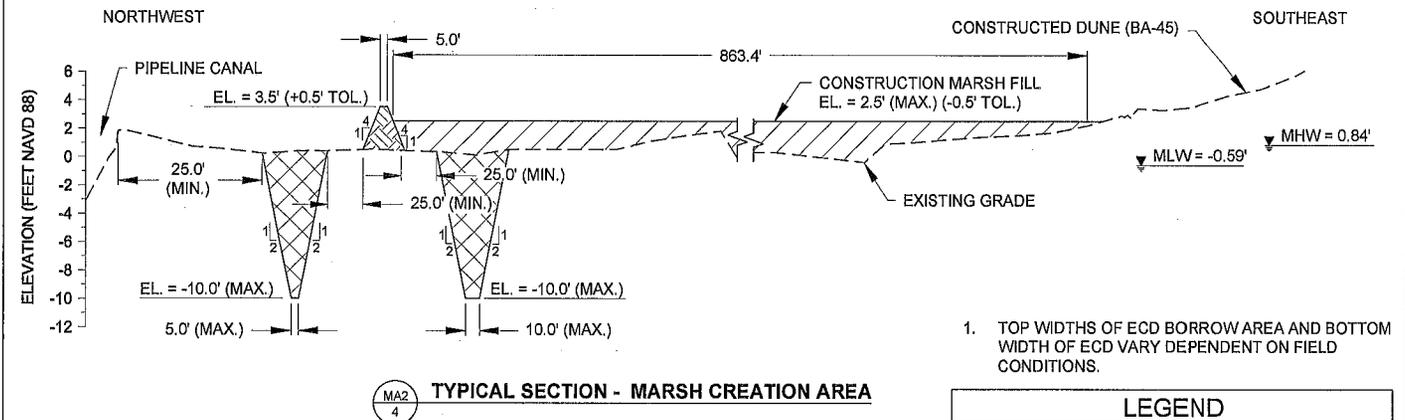
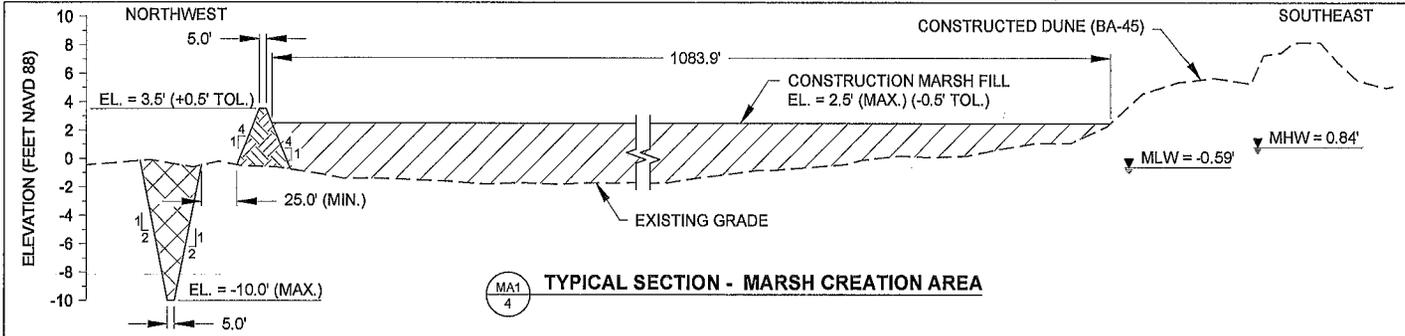
LEGEND	
	EXPANDED MARSH CREATION AREA
	DEWATERING AREA
	DREDGE PIPELINE ALIGNMENT
	CONSTRUCTED DUNE (BA-45)
	DREDGE PIPELINE ALIGNMENT CENTERLINE
	EARTHEN CONTAINMENT DIKE WITHOUT GEOTEXTILE FABRIC
	EARTHEN CONTAINMENT DIKE BORROW AREA
	EQUIPMENT ACCESS CORRIDOR

- 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.

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° 08' 17.31"
42	29° 08' 53.28"	90° 07' 33.48"	52	29° 09' 38.00"	90° 08' 16.87"
43	29° 09' 15.09"	90° 07' 00.24"	53	29° 09' 40.66"	90° 08' 16.26"
44	29° 09' 14.50"	90° 06' 55.29"	54	29° 09' 47.84"	90° 08' 04.85"
45	29° 09' 22.77"	90° 06' 42.33"	55	29° 09' 51.40"	90° 08' 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' 20.08"	90° 04' 57.59"
50	29° 09' 37.75"	90° 06' 20.77"			

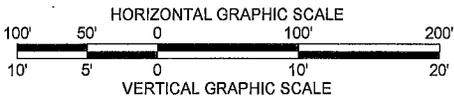
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	MARSH CREATION AREA LAYOUT
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041989	STATE PROJECT NUMBER: BA-0171	DATE: APRIL 2019 SHEET 4A 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

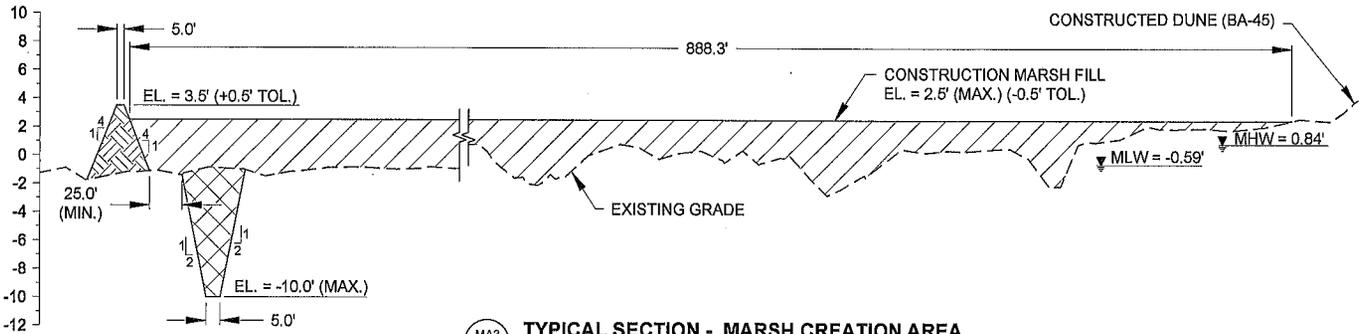


PERMIT MODIFICATION
 1. REVISED EARTHEN CONTAINMENT DIKE CROWN ELEVATION TO 3.5'.
 2. REVISED CONSTRUCTION MARSH FILL ELEVATION TO 2.5'.

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	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171 APPROVED BY: S. HAYNES, P.E.	DATE: JUNE 2018 (REV. 4.2019) SHEET 6 OF 10

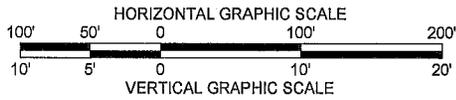
NORTHWEST

SOUTHEAST



MA3 4A TYPICAL SECTION - MARSH CREATION AREA

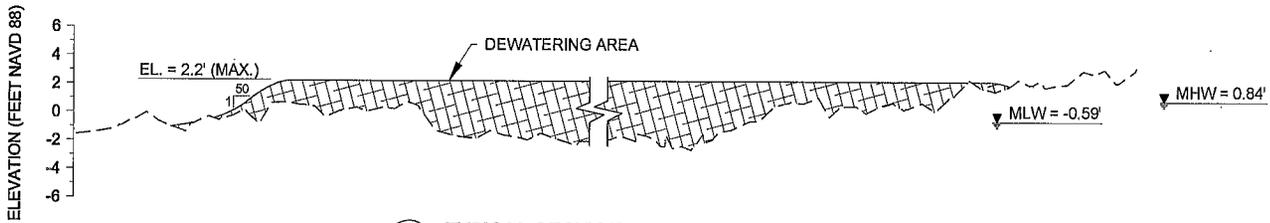
PERMIT MODIFICATION
 1. TYPICAL SECTION FOR THE EXPANDED PORTION OF THE MARSH CREATION AREA.



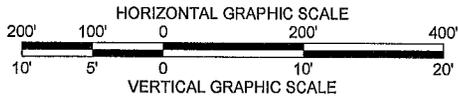
1. TOP WIDTHS OF ECD BORROW AREA AND BOTTOM WIDTH OF ECD VARY DEPENDENT ON FIELD CONDITIONS.

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

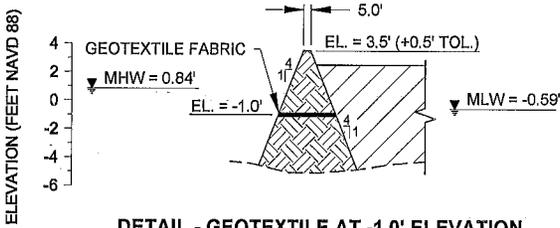
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	MARSH CREATION AREA TYPICAL SECTIONS
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171 APPROVED BY: S. HAYNES, P.E.	DATE: APRIL 2019 SHEET 6A OF 10



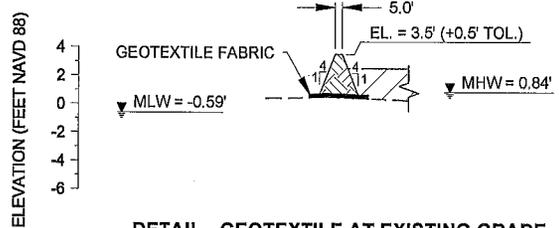
DA 4A **TYPICAL SECTION - DEWATERING AREA**



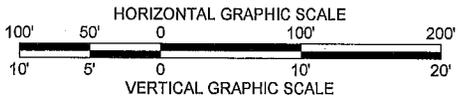
NOTE:
1. THE DEWATERING AREA SHALL BE PRIMARILY USED FOR DECANTING WATER FROM THE MCA. NO CONSTRUCTION SHALL DIRECTLY OCCUR WITHIN THIS AREA.



DETAIL - GEOTEXTILE AT -1.0' ELEVATION



DETAIL - GEOTEXTILE AT EXISTING GRADE

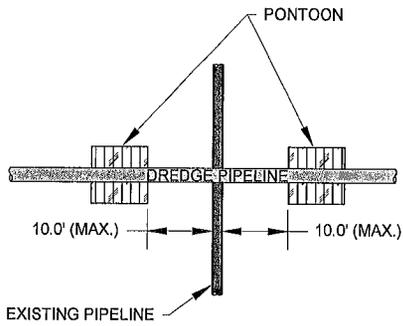


PERMIT MODIFICATION

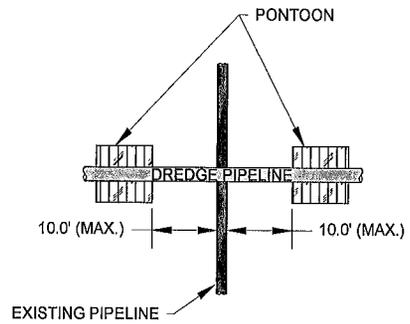
1. REVISED EARTHEN CONTAINMENT DIKE CROWN ELEVATION TO 3.5'.
2. REVISED CONSTRUCTION MARSH FILL ELEVATION TO 2.5'.

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

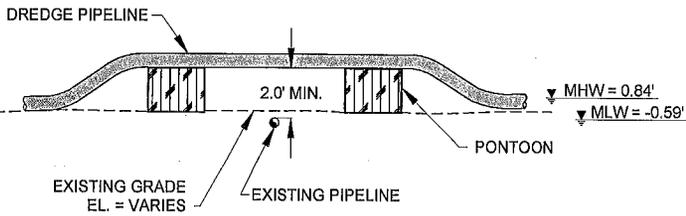
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	DEWATERING AREA TYPICAL SECTION AND GEOTEXTILE DETAILS
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018 (REV. 4.2019)
		APPROVED BY: S. HAYNES, P.E.	SHEET 7 OF 10



PLAN VIEW

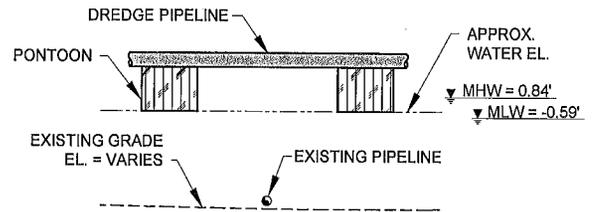


PLAN VIEW



SECTION VIEW

**MARSH PIPELINE CROSSING DETAIL
N.T.S**

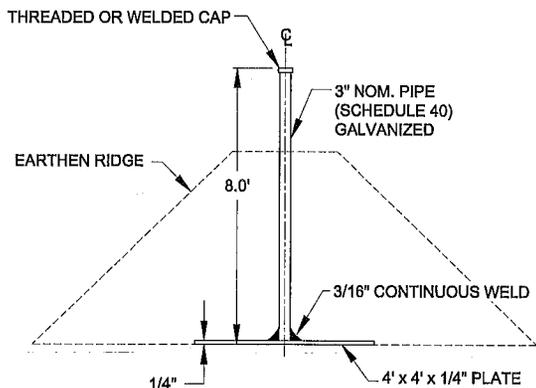
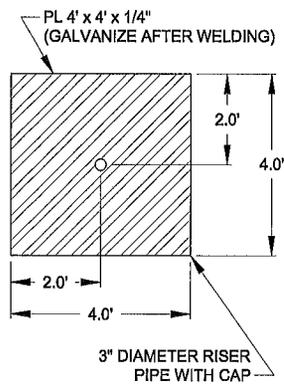
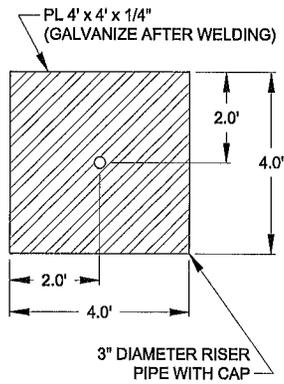


SECTION VIEW

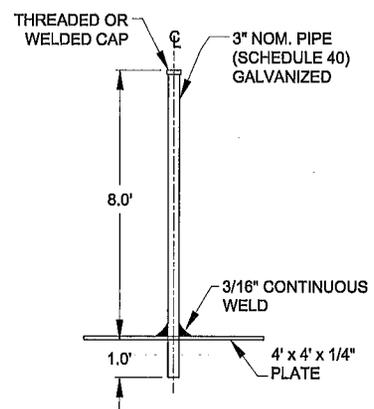
**OFFSHORE PIPELINE CROSSING DETAIL
N.T.S**

LEGEND	
	DREDGE PIPELINE
	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
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041989	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2016
		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
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018 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 PERMITEE 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
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
		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

2019 JUN 17 P 3:35

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:

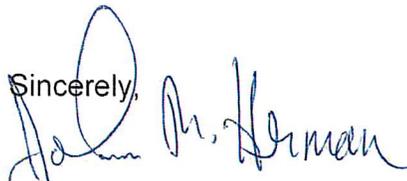
Enclosed is a permit dated this date, subject as above, authorizing work under the Department of the Army permit program.

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.

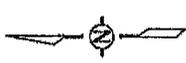
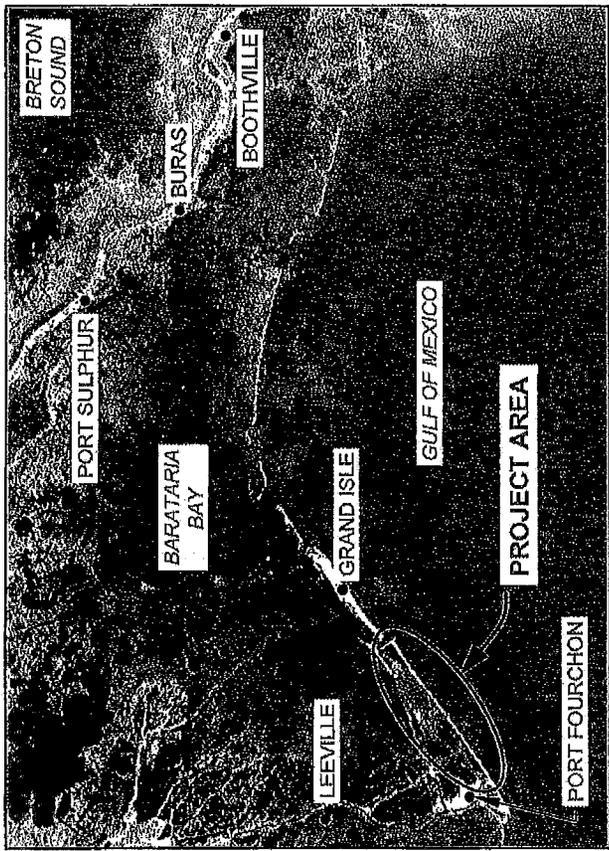
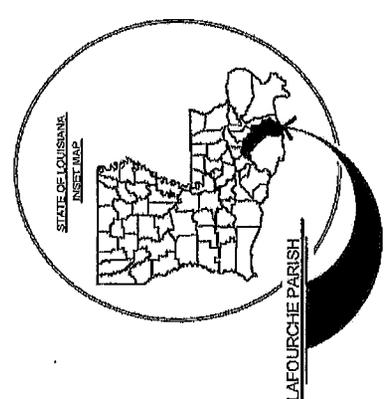
All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:

- 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.

STATE OF LOUISIANA
 COASTAL PROTECTION AND RESTORATION AUTHORITY

**CAMINADA HEADLAND BACK
 BARRIER MARSH CREATION PROJECT**

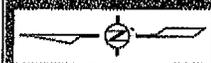
BA-0171
 LAFOURCHE PARISH, LOUISIANA



INDEX TO SHEETS

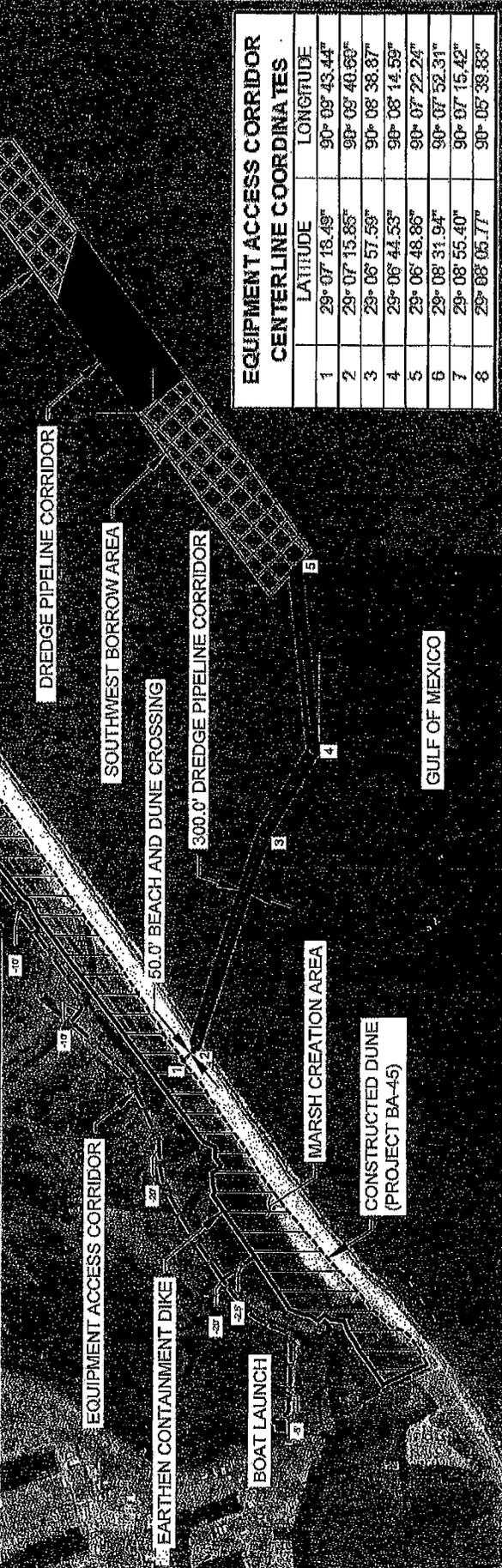
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PROJECT LAYOUT
3	BORROW AREA LAYOUT
4	MARSH CREATION AREA LAYOUT
5	BORROW AREA
6	TYPICAL SECTIONS
6	MARSH CREATION AREA TYPICAL SECTIONS
7	DEWATERING AREA TYPICAL SECTION & GEOTEXTILE DETAILS
8	PIPELINE CROSSING DETAIL
9	SETTLEMENT PLATE DETAILS
10	NOTES

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
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 1 OF 10



PERMITTED EXCAVATION		
FEATURE	VOLUME (CY)	AREA (ACRE)
SOUTHWEST BORROW AREA	3,729,522	198
NORTHEAST BORROW AREA	2,546,397	138
OUTSIDE EARTHEN CONTAINMENT DIKE BORROW CHANNEL	218,674	24
INSIDE EARTHEN CONTAINMENT DIKE BORROW CHANNEL	188,946	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



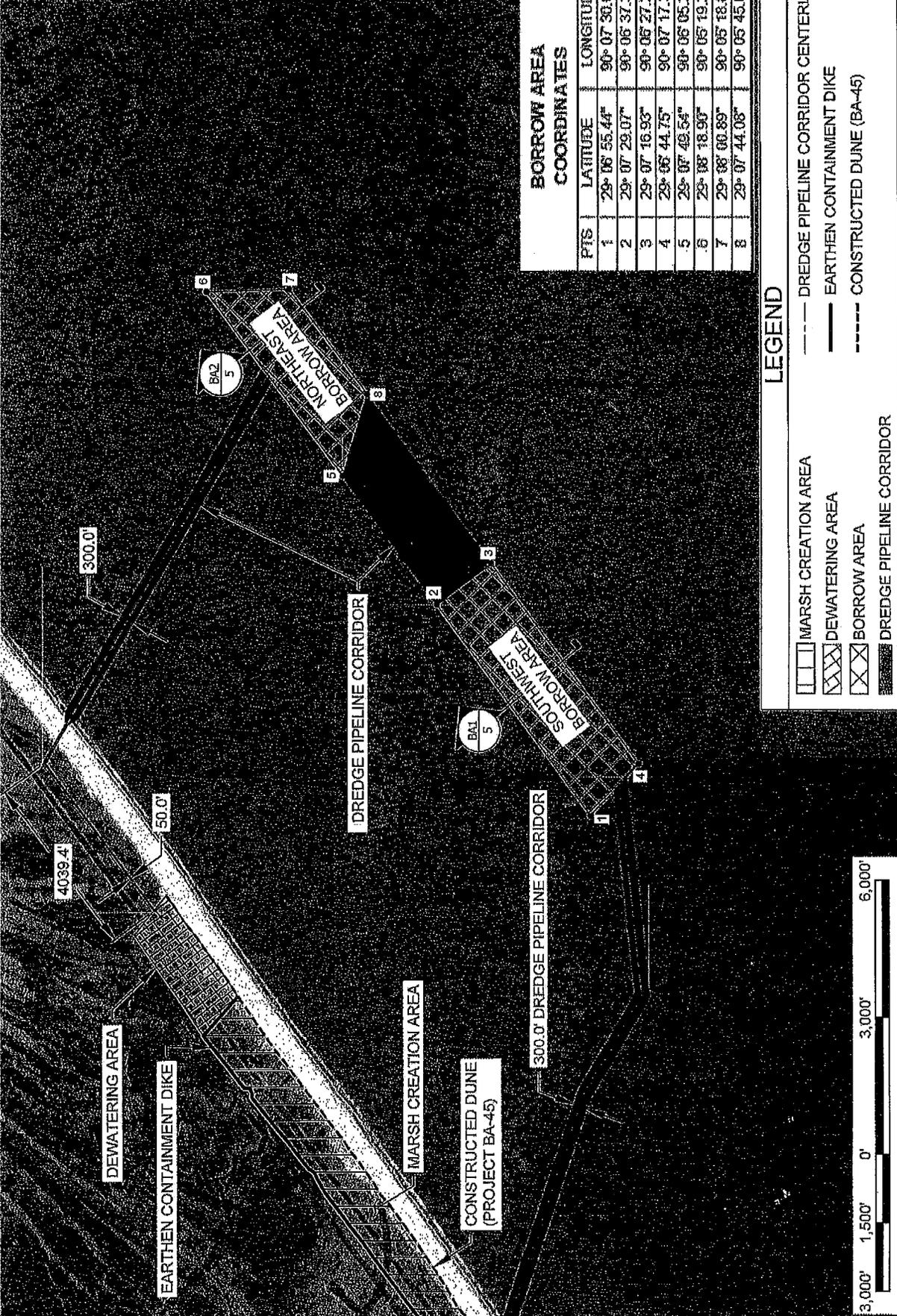
EQUIPMENT ACCESS CORRIDOR CENTERLINE COORDINATES	
POINT	COORDINATES
1	29° 07' 18.49" N 90° 08' 43.44" W
2	29° 07' 15.86" N 90° 08' 40.63" W
3	29° 06' 57.59" N 90° 08' 38.37" W
4	29° 06' 44.53" N 90° 08' 14.59" W
5	29° 06' 48.86" N 90° 07' 22.24" W
6	29° 08' 31.94" N 90° 07' 52.31" W
7	29° 08' 55.40" N 90° 07' 15.42" W
8	29° 08' 06.77" N 90° 05' 39.83" W

LEGEND

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

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.

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
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. 12.17.18
			SHEET 2 OF 10



BORROW AREA COORDINATES	
PTS	LONGITUDE
1	90° 07' 30.08"
2	90° 06' 37.37"
3	90° 06' 27.28"
4	90° 07' 17.34"
5	90° 06' 05.28"
6	90° 05' 19.24"
7	90° 05' 18.88"
8	90° 05' 45.04"

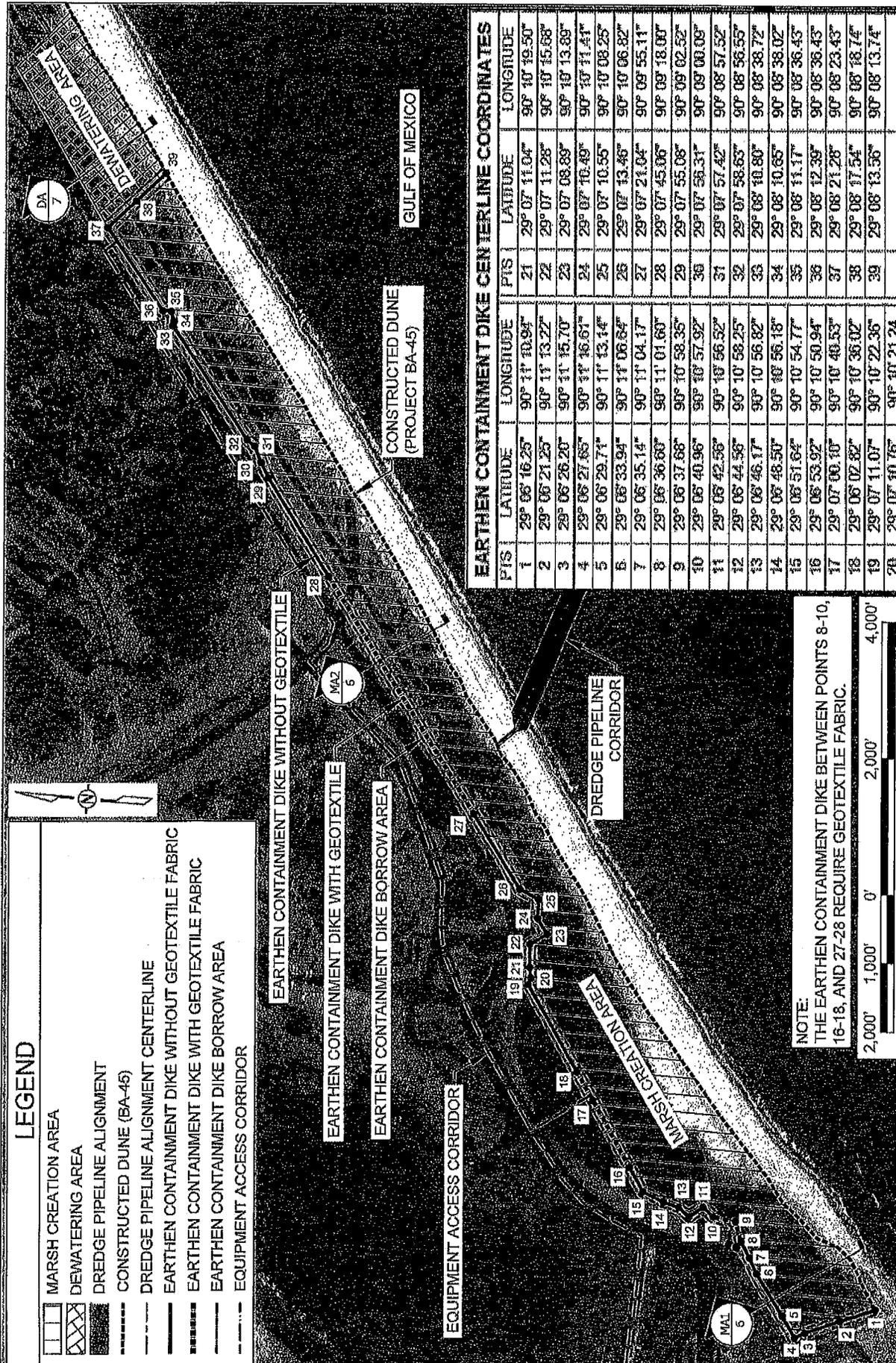
LEGEND	
[Symbol]	MARSH CREATION AREA
[Symbol]	DEWATERING AREA
[Symbol]	BORROW AREA
[Symbol]	DREDGE PIPELINE CORRIDOR
[Symbol]	DREDGE PIPELINE CORRIDOR CENTERLINE
[Symbol]	EARTHEN CONTAINMENT DIKE
[Symbol]	CONSTRUCTED DUNE (BA-45)



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	BORROW AREA LAYOUT
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2016
		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

P/S	LATITUDE	LONGITUDE	P/S	LATITUDE	LONGITUDE
1	29° 06' 16.25"	90° 11' 10.94"	21	29° 07' 11.04"	90° 10' 49.50"
2	29° 06' 21.25"	90° 11' 13.22"	22	29° 07' 11.28"	90° 10' 45.88"
3	29° 06' 26.20"	90° 11' 15.70"	23	29° 07' 08.89"	90° 10' 43.89"
4	29° 06' 27.85"	90° 11' 16.61"	24	29° 07' 16.49"	90° 10' 41.41"
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' 06.84"	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' 48.00"
9	29° 06' 37.88"	90° 10' 58.38"	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' 58.65"	90° 08' 56.55"
13	29° 06' 46.17"	90° 10' 56.82"	33	29° 08' 10.80"	90° 08' 58.72"
14	29° 06' 48.50"	90° 10' 56.18"	34	29° 08' 10.65"	90° 08' 58.02"
15	29° 06' 51.64"	90° 10' 54.77"	35	29° 08' 11.17"	90° 08' 56.43"
16	29° 06' 53.92"	90° 10' 50.94"	36	29° 08' 12.59"	90° 08' 56.43"
17	29° 07' 00.40"	90° 10' 40.53"	37	29° 08' 21.28"	90° 08' 23.43"
18	29° 08' 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.

2,000' 1,000' 0' 2,000' 4,000'

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
 APPROVED BY: S. HAYNES, P.E.

DATE: JUNE 2018
 SHEET 4 OF 10

DRAWN BY: K. CANTU
 DESIGNED BY: A. TAYLOR, P.E. 041989

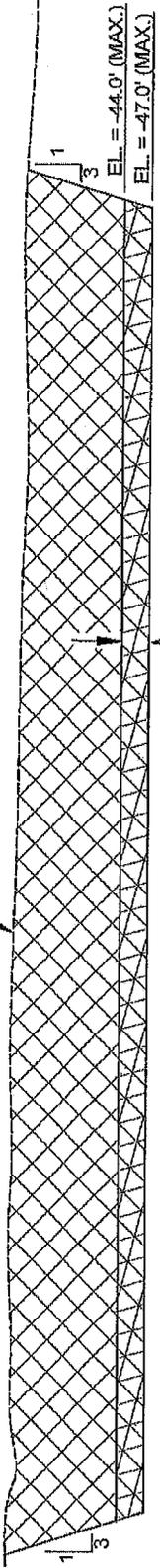
NORTHWEST

SOUTHEAST



MHW = 0.84' MLW = -0.59'

EXISTING WATER BOTTOM



TYPICAL SECTION - BORROW AREA

BA1 3

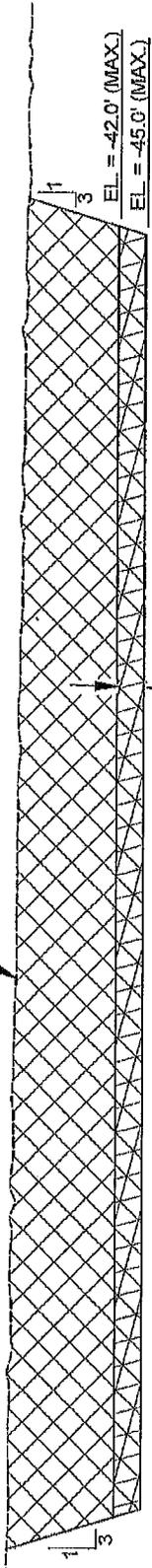
NORTHWEST

SOUTHEAST



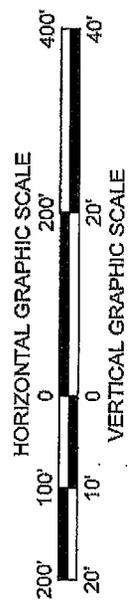
MHW = 0.84' MLW = -0.59'

EXISTING WATER BOTTOM



TYPICAL SECTION - BORROW AREA

BA2 3



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

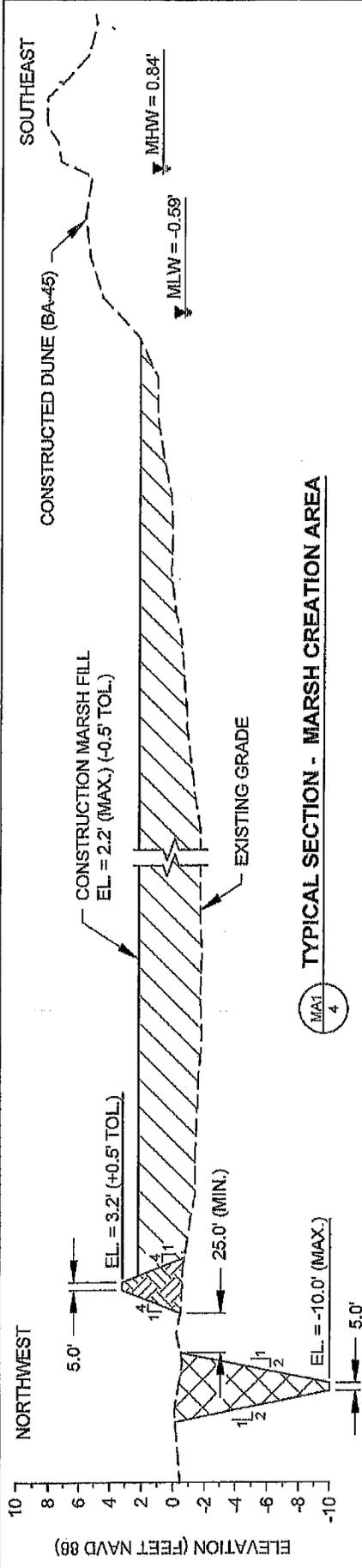
STATE PROJECT NUMBER: BA-0171
APPROVED BY: S. HAYNES, P.E.

BORROW AREA
TYPICAL SECTIONS

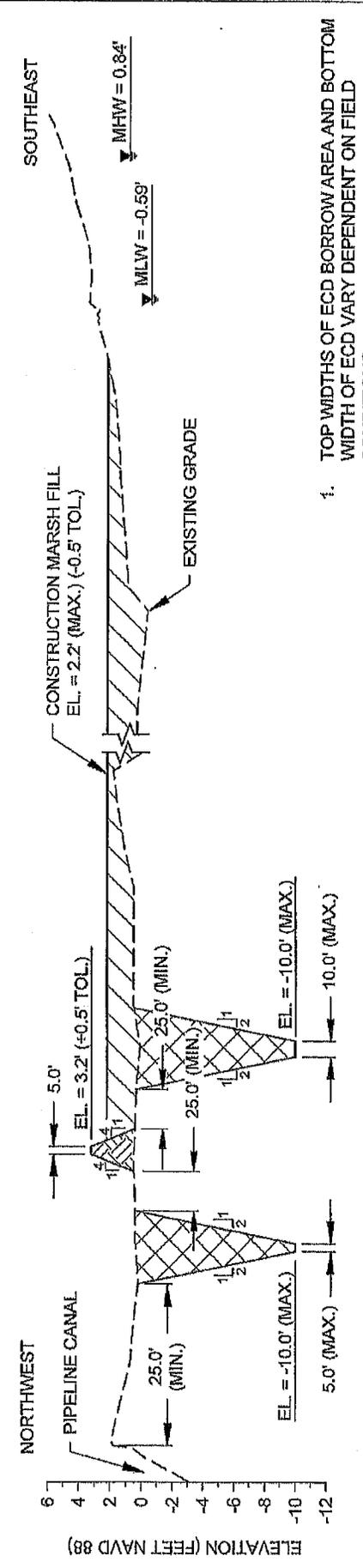
DATE: JUNE 2018
SHEET 5 OF 10

DRAWN BY: K. CANTU

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



TYPICAL SECTION - MARSH CREATION AREA
MA1
4



TYPICAL SECTION - MARSH CREATION AREA
MA2
4

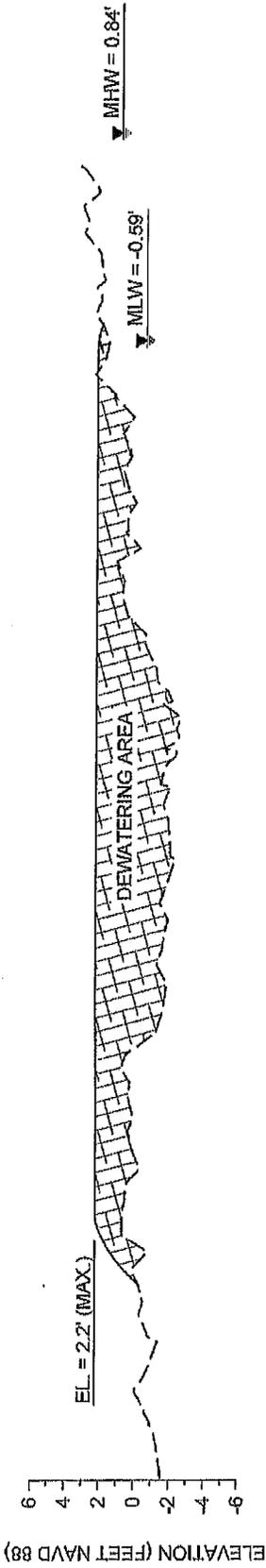
LEGEND

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

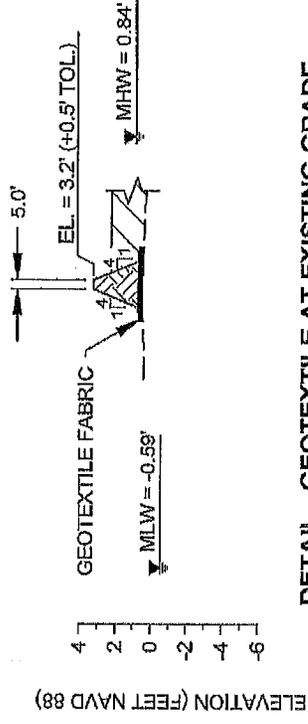
1. TOP WIDTHS OF ECD BORROW AREA AND BOTTOM WIDTH OF ECD VARY DEPENDENT ON FIELD CONDITIONS.



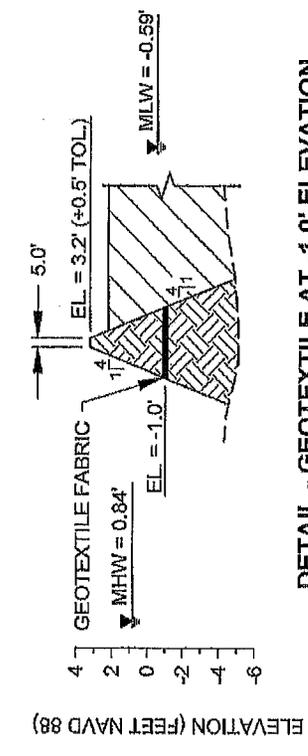
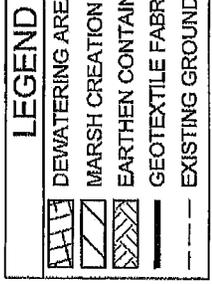
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	MARSH CREATION AREA TYPICAL SECTIONS
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 04/998	STATE PROJECT NUMBER: BA-0171	DATE: JUNE 2018
		APPROVED BY: S. HAYNES, P.E.	SHEET 6 OF 10



TYPICAL SECTION - DEWATERING AREA



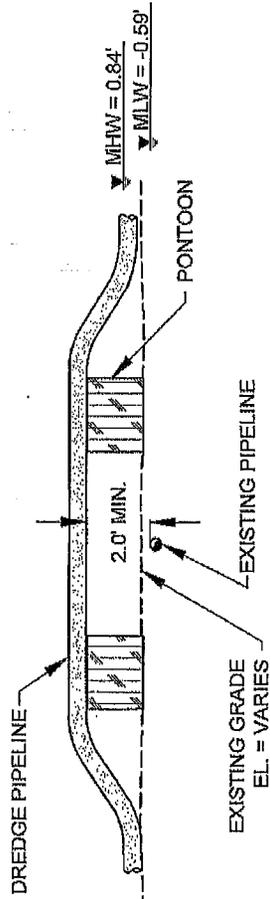
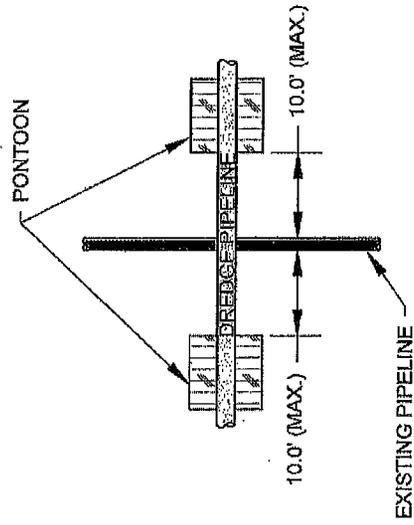
DETAIL - GEOTEXTILE AT EXISTING GRADE



DETAIL - GEOTEXTILE AT -1.0' ELEVATION



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 2002 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
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041899	STATE PROJECT NUMBER: BA-0171 APPROVED BY: S. HAYNES, P.E.	DATE: JUNE 2018 SHEET 7 OF 10

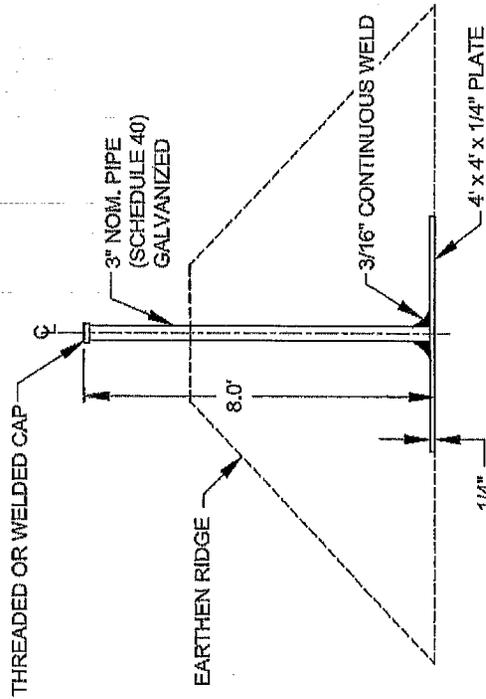
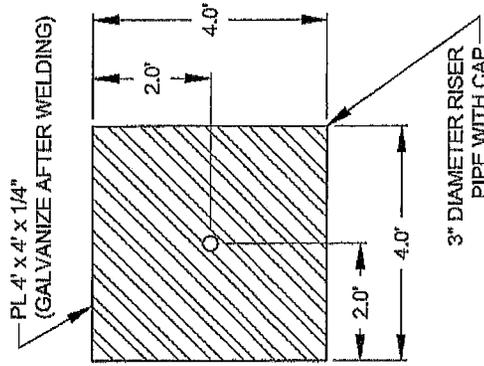
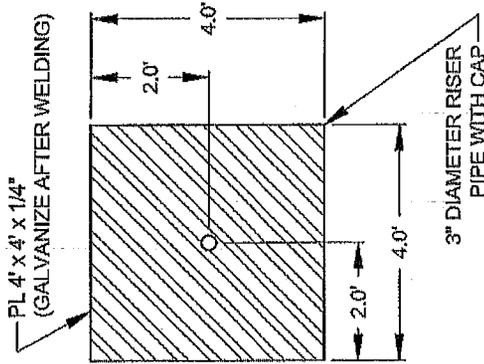


MARSH PIPELINE CROSSING DETAIL
N.T.S

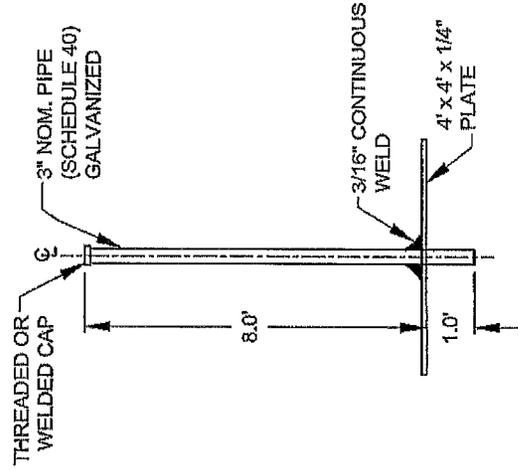
OFFSHORE PIPELINE CROSSING DETAIL
N.T.S

LEGEND	
	DREDGE PIPELINE
	PONTOON SUPPORT
	EXISTING GROUND

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 4027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERREACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	PIPELINE CROSSING DETAIL
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041999	STATE PROJECT NUMBER: BA-0771	DATE: JUNE 2018
		APPROVED BY: S. HAYNES, P.E.	SHEET 8 OF 10



**EARTHEN RIDGE
SETTLEMENT PLATE**
NOT TO SCALE

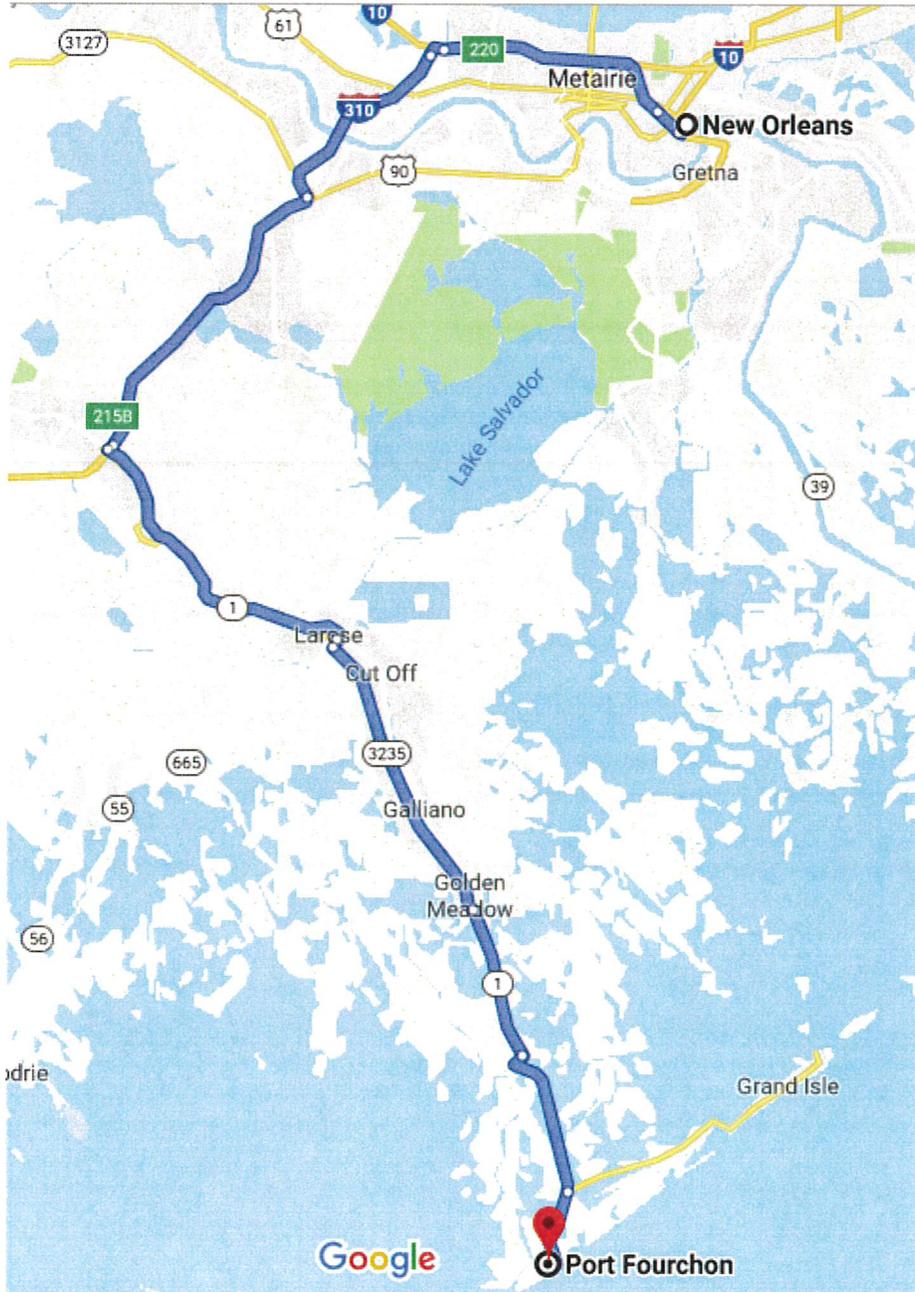


**MARSH CREATION
SETTLEMENT PLATE**
NOT TO SCALE

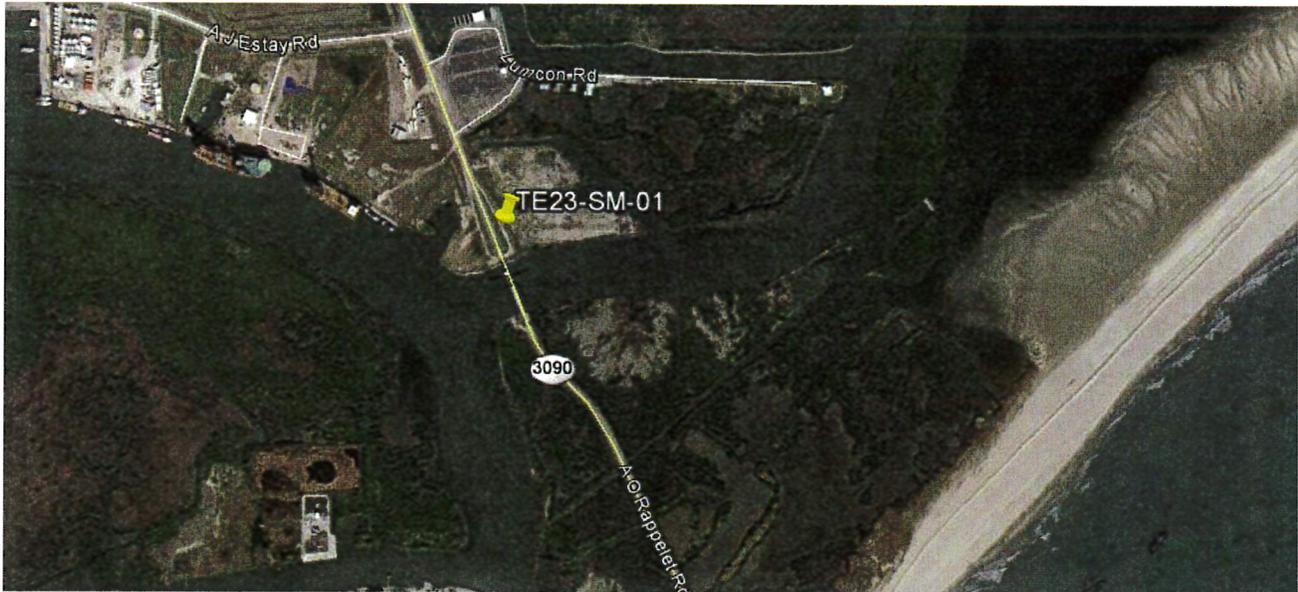
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY P.O. BOX 44027 BATON ROUGE, LA 70804	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT	SETTLEMENT PLATE DETAILS
DRAWN BY: K. CANTU	DESIGNED BY: A. TAYLOR, P.E. 041989	STATE PROJECT NUMBER: BA-071 APPROVED BY: S. HAYNES, P.E.	DATE: JUNE 2018 SHEET 9 OF 10

APPENDIX F: DIRECTIONS TO BOAT LAUNCH

Directions to Boat Launch: From New Orleans, take I-10 to the I-310 exit (Exit 220) toward Boutte/Houma. Continue for 11 miles and exit onto US-90 W toward Houma. Take Exit 215B for LA-308 toward Raceland, and turn left onto LA-308 S toward Lockport. Continue for 17 miles. Follow LA-3235 and LA-1 S to LA-3090 S in Parish Governing Authority District 9 for 32 miles. Pay the toll. Continue on LA-3090 S for 5 miles. Turn left and park at the Parish Boat Launch.



APPENDIX G: SECONDARY SURVEY MONUMENT DATA SHEET



VICINITY MAP Not to Scale

Reproduced from 2015 Google Earth

Station Name: "TE23 SM-01"

Monument Location:

This Station is located southeast of Port Fourchon, 40 feet east of the centerline of La Hwy. 3090 and 65 feet northeast of the bridge approach near Pass Fourchon, Louisiana.

Monument Description: NGS Style floating sleeve monument; 9/16" stainless steel rods driven 96 feet to refusal, set in a sand filled 6" PVC with access cover set flush with the ground.

Date of Survey: February 2015

Monument Established By: Morris P. Hebert, Inc.

NAD 83 Geodetic Position

Lat. 29° 06' 42.28594"N

Long. 90° 11' 26.96414"W

NAD 83 Datum LSZ (1702) Feet

N= 224,296.459

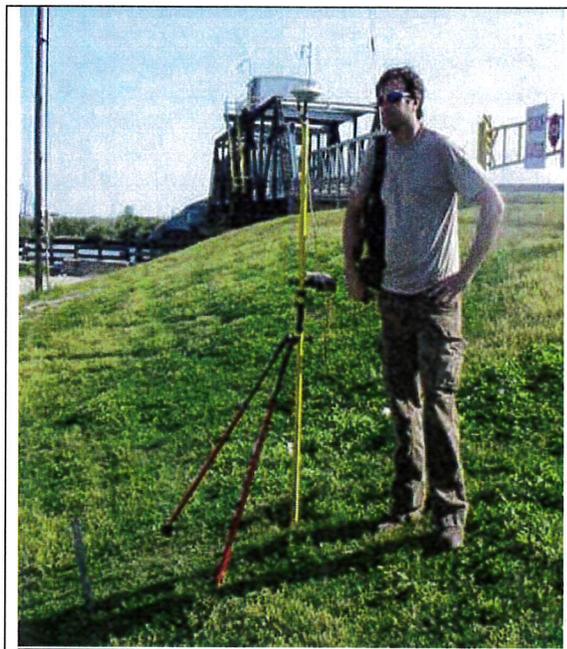
E= 3,645,688.765

Adjusted NAVD 88 Height (Geoid 12A)

+7.29 feet (2.22 meters)

Ellipsoid Hgt:-70.856

Ellipsoid Hgt:-21.597 meters



APPENDIX H: GEOTECHNICAL REPORT

(Provided electronically at <ftp://ftp.coastal.la.gov/BA-171/Appendices/>)

APPENDIX I: SURVEY REPORT

(Provided electronically at <ftp://ftp.coastal.la.gov/BA-171/Appendices/>)

APPENDIX J: HYDRAULIC DREDGE DATA SHEET

HYDRAULIC DREDGE DATA SHEET
CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171)

The Contractor shall submit the following Dredge Data Sheet in the Work Plan for each dredge that is proposed to be utilized to perform the Work. The Dredge Data Sheet shall only be utilized for informational purposes. The submitted information is pertinent to the evaluation of the proposed dredges and their capability to perform the Work. The Contractor shall only omit data or information considered to be proprietary. The Dredge Data Sheet shall constitute a certification that the proposed equipment is available to and under control of the Contractor during the Work.

Name of dredge	
Type	
Manufacturer and manufacture date	
Rebuild date and type	
Current location	

Owner/Lease (specify) name	
Contact person	
Contact address	
Contact phone number	

Maximum draft (ft)	
Minimum operating depth (ft)	
Loaded freeboard (ft)	
Maximum dredge depth (ft)	
Minimum dredge depth (ft)	
Maximum effective dredge swing (Degrees)	
Length of dredge spuds (ft)	
Length of dredge hull (ft)	
Beam of dredge hull (ft)	
Length of dredge ladder (ft)	
Inside diameter of suction inlet (in)	
Inside diameter of pump discharge (in)	
Diameter of pump impeller eye (in)	
Outside diameter of pump impeller (in)	
Suction lift or elevation of main dredge pump relative to the water surface level (ft)	
Brake horsepower and corresponding engine RPMs applied to pump impeller at rated drive of the prime mover during dredging operations	
Brake horsepower applied to cutter head during dredging operations	
Pump engine horsepower and RPMs	
Minimum channel width in which dredge can successfully operate and turn 180 degrees	
Type of production rate monitoring equipment	

Expected production rate for beach and dune fill (CY/Day)	NA
Expected production rate for marsh fill (CY/Day)	

Booster pump name and horsepower	
Booster pump name and horsepower	
Booster pump name and horsepower	

APPENDIX K: EQUIPMENT DATA SHEET

EQUIPMENT DATA SHEET

CAMINADA HEADLAND BACK BARRIER MARSH CREATION PROJECT (BA-0171)

The Contractor shall submit the following Equipment Data Sheet in the Work Plan for each piece of heavy construction equipment (I.E., barge, track hoe, dozer, pile hammer, etc.) that is proposed to be utilized to perform the Work. The Equipment Data Sheet shall only be utilized for informational purposes. The submitted information is pertinent to the evaluation of the proposed equipment and their capability to perform the Work. The Contractor shall only omit data or information considered to be proprietary. The Equipment Data Sheet shall constitute a certification that the proposed equipment is available to and under control of the Contractor during the Work.

Type of equipment	
Manufacturer and manufacture date	
Condition	
Current location	
Description of use on project	

Owner/Lease (specify) name	
Contact person	
Contact address	
Contact phone number	

Expected production rate (Daily or hourly)	
Weight (tons)	
Dimensions (ft)	
Method of mobilization and demobilization	

APPENDIX L: DAILY PROGRESS REPORT FORM

10/31/2019
Certified By:

Camminada Headland Back Barrier
Marsh Creation Project (BA-171)

Contractor:
Daily Progress Report No. 1

Environment Temperature: _____ Precipitation: _____ Tide Range: _____

Safety Incident: _____ Safety Topic: _____

Contract Number: _____ Status: _____
Modification (Select Type) (Select Type) Status: _____

Engineer Landowner: _____ LA One Call: _____ Permit Violation: _____
Notification Endangered Species: _____ Notice to Mariners: _____ Injury/Spill: _____

Dredge Pipe Steel Pipe: _____ Installed LF Plastic Pipe: _____
Steel Pipe: _____ Diameter Diameter Plastic Pipe: _____

Mobilized Equipment Hydraulic Dredge Booster Pump # Excavators On-site: _____

Surveys Pre-Construction Start / End Date: _____ % Complete: _____
Process Start / End Date: _____ % Complete: _____
As-Built Start / End Date: _____ % Complete: _____

Pre-Construction			
ID#	Location		Base Plate Elevation (ft, NAVD88)
	Northing	Easting	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

During Fill Placement

Date ID# Top of Pipe Elevation (ft, NAVD88)

Date # of Excavators Lift # LF constructed Start Stationing End

Average construction rate	#DIV/0!
Average # of excavators	#DIV/0!
Average rate/excavator	#DIV/0!

APPENDIX M: PREVAILING WAGE DETERMINATION

PREVAILING WAGE DETERMINATION

<https://beta.sam.gov/search?index=wd&keywords=&sort=-modifiedDate&wdType=dbra&page=1>

State: Louisiana

Parishes: Lafourche and Jefferson

APPENDIX N: ENVIRONMENTAL DOCUMENTS



State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT

CHARLES R. DAVIS
DEPUTY SECRETARY

PHIL BOGGAN
INTERIM ASSISTANT SECRETARY

JAY DARDENNE
LIEUTENANT GOVERNOR

21 September 2015

Adrian Chavarria
Environmental Engineer
EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Re: Draft Report
La Division of Archaeology Report No. 22-5051
*Geohazard and Archaeological Assessment for Caminada Headlands Back Barrier Marsh Creation Project,
Lafourche, Louisiana*

Dear Mr. Chavarria:

We acknowledge receipt of your letter dated 8 September 2015 and two copies of the above-referenced report. We have completed our review of this report and offer the following comments.

Our office concurs that no historic properties will be impacted by construction and use of the West Access Area, and we have no further concerns for this area.

We also concur that in the North Access Area magnetic anomalies M04 through M10 should be avoided by a 300 foot buffer unless they are investigated by a diver to determine the nature of the anomaly. If diver investigations are conducted, we request the opportunity to review the diver's report and evaluate whether the anomaly is a cultural resource or a modern object.

Of greater concern is the potential for the North Access Area to cross a submerged archaeological site. Our office maintains an online GIS with the location of known archaeological sites plotted; site 16LF274 appears to lie within the project area. Furthermore, the "Hard Return" mapped under the Sand Waves on Figure 8 of the Archaeological Analysis report appears to be positioned approximately where the site is reported. This hard return is likely a shell deposit (see page 40 of the report) and may represent a prehistoric shell midden. Numerous artifacts wash up on the modern Caminada beach (site 16LF282), including occasional human remains, and it is our opinion that they are being eroded from a site currently submerged offshore. This is mostly likely 16LF274 situated on a now submerged natural levee of Bayou Moreau. The fact that the hard return lies in close proximity to a buried channel just to the north further suggests the return represents a cultural deposit associated with the former Bayou Moreau. Our office recommends that the North Access Area be moved to avoid the location of 16LF274, or if this is not possible, that additional investigations be undertaken to determine whether the site lies in the project area, if so, whether any intact deposits are present, and whether it is eligible for nomination to the National Register of Historic Places.

Our office requests a revised report that addresses the location of sites 16LF274 and 16LF282, and their position relative to the proposed North Access Area and to potential archaeological deposits mapped by the sub-bottom profiler data.

We concur with the proposed Unanticipated Discoveries Plan.

RECEIVED
EPA REGION VI
15 SEP 30 PM 5:00
ENVIRONMENTAL PROTECTION DIV

We look forward to receiving two copies of the revised report. If you have any questions, please contact Chip McGimsey in the Division of Archaeology by email at cmcgimsey@crt.la.gov or by phone at 225-219-4598.

Sincerely,

A handwritten signature in black ink, appearing to read "Phil Boggan". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Phil Boggan
Deputy State Historic Preservation Officer



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

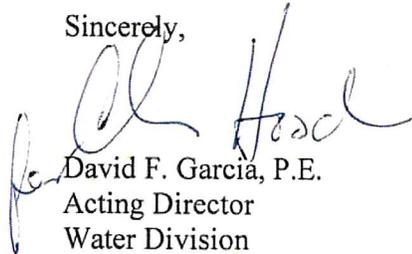
SUBJECT: Caminada Headlands Back Barrier Marsh Creation project (BA-171) funded by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA), Endangered Species Act, Section 7 Determination

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
 Is not likely to adversely effect those resources
Joseph A. Ranson 12 Jul 18
Supervisor Date
Louisiana Ecological Services Office
U.S. Fish and Wildlife Service

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.

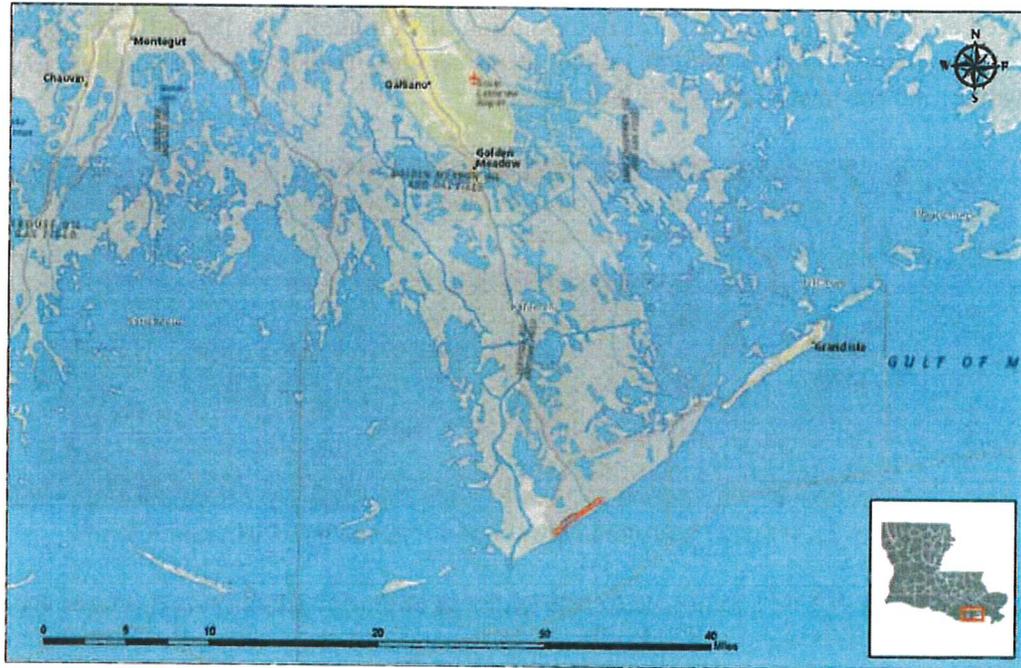


Figure 1. BA-171 project location.

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).

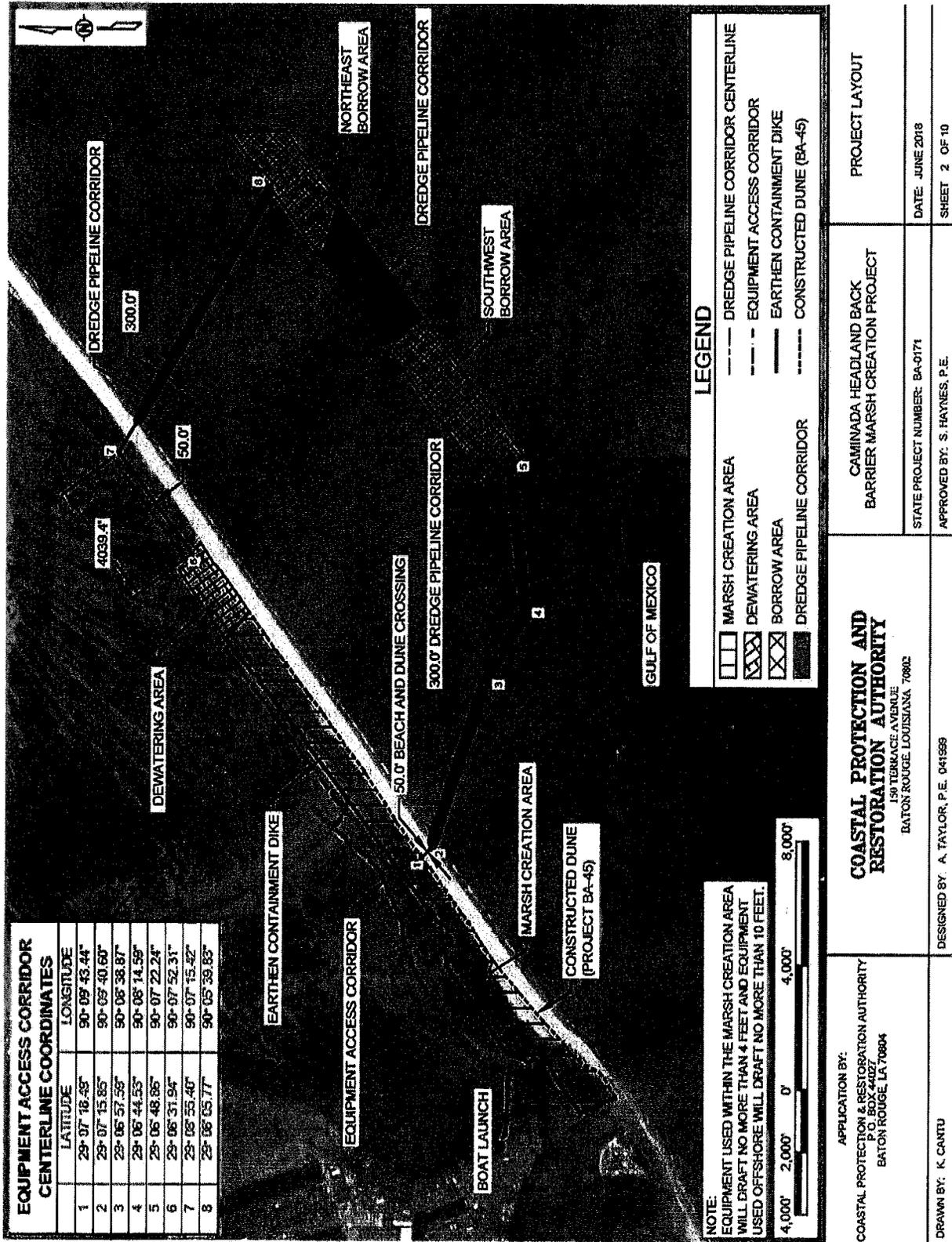


Figure 3. BA-171 Project layout, June 2018.

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 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.

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/nationalbaldeaglenagementguidelines.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 kempi*) 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,

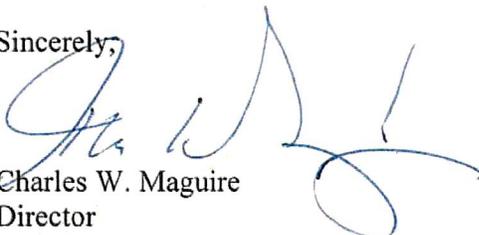
Is not likely to adversely effect those resources



Supervisor Date

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

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



This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure. If you have received this message in error, you are hereby notified that we do not consent to any reading, dissemination, distribution or copying of this message. If you have received this communication in error, please notify the sender immediately and destroy the transmitted information. Please note that any view or opinions presented in this email are solely those of the author and do not necessarily represent those of the Choctaw Nation.



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

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. Brigette 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.

APPENDIX O: PROPOSED RATIOS OF EFFORT BREAKDOWN

