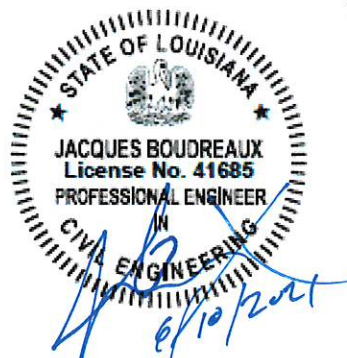


**BID DOCUMENTS
FOR**

**NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION &
MARSH CREATION PROJECT
(PO-0169)**

ORLEANS PARISH, LOUISIANA



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

JUNE 2021

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1.	TITLE SHEET
2.	GENERAL NOTES
3.	SUMMARY OF ESTIMATED QUANTITIES
4.	PROJECT LAYOUT AND EQUIPMENT ACCESS CORRIDORS
5.	BORROW AREA 1 PLAN VIEW
6.	MARSH CREATION AREA 1 PLAN VIEW
7.	MARSH CREATION AREA 2 PLAN VIEW
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13-14.	DESIGN SURVEY AND DATA COLLECTION LAYOUT
15.	MAGNETOMETER DATA
16-17.	CONSTRUCTION SURVEY AND SETTLEMENT PLATE LAYOUT
18-25.	MARSH CREATION AREA SECTIONS
26-27.	BORROW AREA SECTIONS
28-30.	EQUIPMENT ACCESS AND DREDGE PIPE CORRIDOR CENTERLINE PROFILES
31.	EARTHEN CONTAINMENT DIKE DETAILS
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33.	GRADE STAKE DETAILS
34.	SETTLEMENT PLATE DETAILS
35.	INSTRUMENTED SETTLEMENT PLATE DETAILS

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, July 15, 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: **New Orleans Landbridge Shoreline Stabilization and Marsh Creation Project
Orleans Parish, Louisiana**

PROJECT NUMBER: **PO-0169**

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: Jordan DeLaune

E-mail: cpa.bidding@la.gov Phone: (225) 342-1150 Fax: (225) 342-4004

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 NON-MANDATORY PRE-BID CONFERENCE WILL BE HELD at
10:00 AM on Thursday, July 1, 2021 via Zoom Webinar at:**

<https://us02web.zoom.us/j/81492047117>

Meeting audio may be accessed through your computer/device. If your computer/device does not have audio, meeting audio can be accessed via phone with the following call-in information:

Conference Line Phone Number: (636) 651-3142; Conference code: 763667

The jobsite visit will not be facilitated by the Owner. Bidders are encouraged to visit the Project Site on their own. The Project Site will be made accessible to Bidders upon request. Contact Micaela Coner at (225) 342-1952 to request access to the Project Site.

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 **Three Hundred Sixty (360)** consecutive calendar days for the Base Bid, an additional **Twenty-One (21)** consecutive calendar days for Alternate No. 1, and an additional **Fourteen (14)** consecutive calendar days for Alternate No. 2, 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 **Three Thousand Eight Hundred Thirty-Five Dollars (\$3,835.00)** 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"

ARTICLE 1

opening of bids

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

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 Facility Planning and Control Department 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, 70804-4027.

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: NEW ORLEANS LANDBRIDGE
SHORELINE STABILIZATION &
MARSH CREATION PROJECT
(PO-0169)

(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: Coastal Protection and Restoration Authority and dated: June 2021.

(Owner to provide name of entity preparing bidding documents.)

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 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____ Dollars (\$ _____)

Alternate No. 2 *(Owner to provide description of alternate and state whether add or deduct)* for the lump sum of:

_____ Dollars (\$ _____)

Alternate No. 3 *(Owner to provide description of alternate and state whether add or deduct)* 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 R.S. 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
(Owner to provide name and address of owner)

BID FOR: NEW ORLEANS LANDBRIDGE
 SHORELINE STABILIZATION &
 MARSH CREATION PROJECT
 (PO-0169)
(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.# ____ MOBILIZATION AND DEMOBILIZATION (TS-100)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
1	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ SURVEYS (TS-200)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
2	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ GRADE STAKES (TS-220)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
3	24	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ SETTLEMENT PLATES (TS-250)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
4	11	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ INSTRUMENTED SETTLEMENT PLATES (TS-251)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
5	5	Each		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ EARTHEN CONTAINMENT DIKES (TS-300)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
6	32,300	Linear Foot		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ ACCESS AND FLOTATION CHANNELS (TS-330)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
7	1	Lump Sum		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ HYDRAULIC DREDGING AND MARSH FILL (TS-400)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
8	1,041,900	Cubic Yard		

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.

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

BID FOR: NEW ORLEANS LANDBRIDGE
 SHORELINE STABILIZATION &
 MARSH CREATION PROJECT
 (PO-0169)

(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.# ____ WOVEN GEOTEXTILE FABRIC (TS-600)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
9	89,090	Square Yard		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ NON-WOVEN GEOTEXTILE FABRIC (TS-640)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
10	19,450	Square Yard		

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# <u>1</u> ARTICULATED CONCRETE MATS (TS-750)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
11	19,450	Square Yard		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>1</u> SURVEYS (TS-200)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
12	1	Lump Sum		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>1</u> ACCESS AND FLOTATION CHANNELS (TS-330)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
13	1	Lump Sum		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>1</u> NON-WOVEN GEOTEXTILE FABRIC (TS-640)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
14	28,020	Square Yard		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>1</u> ARTICULATED CONCRETE MATS (TS-750)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
15	28,020	Square Yard		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>2</u> SURVEYS (TS-200)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
16	1	Lump Sum		

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.

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

BID FOR: NEW ORLEANS LANDBRIDGE
 SHORELINE STABILIZATION &
 MARSH CREATION PROJECT
 (PO-0169)

(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 type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2__ ACCESS AND FLOTATION CHANNELS (TS-330)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
17	1	Lump Sum		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2__ NON-WOVEN GEOTEXTILE FABRIC (TS-640)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
18	16,240	Square Yard		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# 2__ ARTICULATED CONCRETE MATS (TS-750)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
19	16,240	Square Yard		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1__ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
Not Applicable	Not Applicable	Not Applicable		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 1__ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
Not Applicable	Not Applicable	Not Applicable		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 2__ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
Not Applicable	Not Applicable	Not Applicable		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 2__ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
Not Applicable	Not Applicable	Not Applicable		

DESCRIPTION:	<input type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# 2__ Not Applicable			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
Not Applicable	Not Applicable	Not Applicable		

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)

NEW ORLEANS LANDBRIDGE
SHORELINE STABILIZATION &
MARSH CREATION PROJECT
Name of Project

PO-0169
Project No.

STATE OF LOUISIANA

PARISH OF ORLEANS

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) | (c) Extortion (R.S. 14:66) |
| (b) Corrupt influencing (R.S. 14:120) | (d) Money laundering (R.S. 14:230) |

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) | (e) Bank fraud (R.S. 14:71.1) |
| (b) Identity Theft (R.S. 14:67.16) | (f) Forgery (R.S. 14:72) |
| (c) False accounting (R.S. 14:70) | (g) Contractors; misapplication of |
| (d) Issuing worthless checks | payments (R.S. 14:202) |
| (R.S. 14:71) | (h) 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 employees 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.

NEW ORLEANS LANDBRIDGE
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MARSH CREATION PROJECT
Name of Project

PO-0169
Project No.

- 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.

LA. 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 _____, 2021, 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
PARISH OF ORLEANS

PROJECT NO.:	PO-0169
NAME:	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION & MARSH CREATION PROJECT
LOCATION:	ORLEANS PARISH, LA

A F F I D A V I T

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 _____, 2021.

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.

GENERAL PROVISIONS
REVISED May 2020

- 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 Coastal Protection and Restoration Authority, 150 Terrace Avenue, Suite 100, 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 and/or Job Site Visit may be held at the location and on the date provided in the Advertisement For Bids. 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 in its entirety. Failure to attend a mandatory Pre-Bid Conference and/or mandatory Job Site Visit in its entirety will result in a null or void Bid.

All questions shall be in writing and faxed or emailed to the Coastal Protection and Restoration Authority 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 Instructions 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 the anticipated adverse weather delays described in GP-7 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 compliance with the Progress Schedule and Contract Time.

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 aids (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 shutdown 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 811 or (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, LDWF Fill Material License, and LADOTD highway crossing permit 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 or prejudice the Owner's rights under the Contract.

GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE

A Resident Project Representative may 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/?pageName=navRulesContent>.

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 regulated by the USCG shall have the required USCG documentation that is current before being placed in service. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be made available to the Owner and Engineer and a copy shall be on board the vessel. 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 USCG 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, the 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.

The Owner will record the Notice of Acceptance with the Clerk of Court in the Parish(s) in which the Work has been performed. The recording of the Notice of Acceptance shall commence a lien period of not less than forty-five (45) consecutive calendar days, during which period the retainage will be withheld by the Owner. The Owner will provide the Contractor with a copy of the Certificate of Recordation.

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 and filing of the Notice of Acceptance as described in GP-53.

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 owed 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 Readjustment 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, debarred, or ineligible from entering into contracts with any department or agency of the Federal Government or of the State of Louisiana, or in receipt of notice of proposed debarment or suspension.

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 the 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 Orleans Parish, Louisiana, on the shores of Lake Pontchartrain and Lake St. Catherine, near the confluence of the tidal inlet to Lake Pontchartrain, Sawmill Pass, and The Rigolets, approximately seven (7) miles southeast of Slidell, LA along US Highway 90. Approximate coordinates for the center of the project are 30°09'20" N and 89°44'07" W (NAD 83).

The Project Site is divided into three (3) Marsh Creation Areas, which are hereinafter referred to as Marsh Creation Area 1 (MCA1), Marsh Creation Area 2 (MCA2), and Marsh Creation Area 3 (MCA3), along with two (2) Borrow Areas, which are hereinafter referred to as Borrow Area 1 (BA1) and Borrow Area 2 (BA2). See the Plans for additional details.

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/from the Project Site; Surveying; procurement, assembly, installation, and surveying of Grade Stakes, Settlement Plates, and Instrumented Settlement Plates; construction of Earthen Containment Dikes; Hydraulic Dredging and placement of dredged material; procurement, installation, and surveying of Woven Geotextile Fabric; procurement, installation, and surveying of Non-Woven Geotextile Fabric; procurement, installation, and surveying of Articulated Concrete Mats; and other items pursuant to the completion of the Work as identified throughout the Contract Documents. 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. 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. 24-hour Work periods shall be allowed for all items of the Work pertaining to Earthen Containment Dikes, Hydraulic Dredging and Marsh Fill, Woven Geotextile Fabric, Non-Woven Geotextile Fabric, and Articulated Concrete Mats, unless otherwise noted in the Contract Documents. Any exception shall be requested in writing by the Contractor to the Engineer. Prior written authorization from the Owner shall be required in order to deviate from this stipulation. Quantity calculations, layouts, Shop Drawings, and construction sequencing of these items shall be provided in the Work Plan. The 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 Areas. Material such as logs, stumps, snags, tires, scrap, debris and other obstructions may be encountered within the Project Site. No separate payment for removal and disposal of these obstructions shall be made. The Contractor shall not relocate the side scan sonar contacts identified within the borrow areas, which are further discussed in SP-15. No consideration shall be given to any Claims for additional payments based on the failure of the Contractor to inspect the Project Site.

- 2.2 Surveying: Prior to construction, unless stated otherwise herein, a Pre-Construction Survey shall be performed on the Marsh Creation Areas, Borrow Areas, Earthen Containment Dikes, Earthen Containment Dike Borrow Areas, Dredge Pipeline and Equipment Access Corridors, Grade Stakes, Settlement Plates, and Instrumented Settlement Plates. During construction, Process Surveys shall be performed for monitoring, partial Acceptance, and payment. After construction is complete, the Contractor shall perform an As-Built Survey for Acceptance of all the Work.
- 2.3 Grade Stakes: Grade Stakes shall be installed in the Marsh Creation Area(s) as required in the Specifications and approved in the Work Plan, and to the material, assembly, and installation requirements as stated in these Specifications.
- 2.4 Settlement Plates: Settlement Plates shall be fabricated and installed in the Marsh Creation Areas at the locations shown on the Plans, and to the material, assembly, and installation requirements as stated in these Specifications.
- 2.5 Instrumented Settlement Plates: Instrumented Settlement Plates shall be fabricated and installed in the Marsh Creation Areas as shown on the Plans, and to the material, assembly, and installation requirements as stated in these Specifications.
- 2.6 Earthen Containment Dikes: Earthen Containment Dikes shall be constructed from in-situ soils to be mechanically dredged from adjacent Earthen Containment Dike Borrow Areas in order to create full perimeter containment for the Marsh Creation Areas as shown on the Plans.
- 2.7 Hydraulic Dredging and Marsh Fill: Dredge material shall be hydraulically dredged from the Borrow Areas, conveyed through pipeline via the Dredge Pipeline Corridors, and placed within the Marsh Creation Areas as shown on the Plans.
- 2.8 Woven Geotextile Fabric: Prior to construction of Earthen Containment Dikes, Woven Geotextile Fabric shall be placed beneath all Earthen Containment Dikes requiring Woven Geotextile Fabric, as shown on the Plans, and to the requirements as stated in these Specifications.
- 2.9 Non-Woven Geotextile Fabric: Non-Woven Geotextile Fabric shall be utilized during Earthen Containment Armoring preparation, assembly, and install, and shall be attached to Articulated Concrete Mats atop all open water-facing Earthen Containment Dikes requiring Earthen Containment Dike Armoring, as shown on the Plans, and to the requirements as stated in these Specifications.
- 2.10 Articulated Concrete Mats: Articulated Concrete Mats shall be utilized during Earthen Containment Dike Armoring preparation, assembly, and install, and shall be placed along with Non-Woven Geotextile Fabric atop all open water-facing Earthen Containment Dikes requiring Earthen Containment Dike Armoring, as shown on the Plans, and to the requirements as stated in these Specifications.

SP-3 CONTRACT MILESTONES

Milestone	Location or Recipient	Due Date
Bid Advertisement	Publications	As advertised.
Pre-Bid Conference and Pre-Bid Site Visit (GP-5)	Location provided in Advertisement for Bids	Provided in Advertisement for Bids.
Questions on Bid Documents (GP-5 and SP-5)	Submit to CPRA*	Provided in Instructions to Bidders.
Effective Date of Contract	Submit to Contractor and Owner	Stated in Contract.
Start of Contract Time	Submit to Contractor and Owner	Stated in Notice to Proceed.
List of all Subcontractors (GP-19)	Submit to Engineer	Prior to awarding any Subcontracts.
Work Plan (GP-8 and SP-7)	Submit to Engineer	14 days prior to Pre-Construction Conference.
Progress Schedule (GP-9)	Submit to Engineer	14 days prior to starting construction, monthly thereafter.
Daily Progress Report (GP-10)	Submit to Construction Manager, Resident Project Representative, Engineer, and Owner	12:00 pm each day from mobilization to demobilization.
USCG Notice to Mariners (SP-16)	Submit to Engineer	Prior to mobilization of the dredge, dredge pipeline
Pre-Construction Conference (GP-14)	Contractor, Engineer, and Resident Project Representative	Scheduled by the Engineer after the Notice to Proceed is issued.
Progress Meetings and Reports (GP-13, GP-39)	Submit to Owner, Engineer, and Resident Project Representative	Bi-weekly.
Pre-Construction Survey (TS-200)	Submit to Engineer	14 working Days prior to anticipated start of Construction.
Process Surveys (TS-200)	Submit to Engineer	5 working Days after notification that field data collection for each process survey is complete.
As-Built Survey (TS-200)	Submit to Engineer	Draft due five (5) working Days prior to Final Inspection. Final due 14 working Days after Final Inspection.
As-Built Drawings	Submit to Engineer	Five (5) working Days prior to Final Inspection. Final due 14 working days after Final Inspection.

Milestone	Location or Recipient	Due Date
Signed Mill Certificate of Non-Woven Geotextile Fabric Prior to Installation (TS-640)	Submit to Engineer	At least 30 days prior to installation.
Signed Chain of Custody of Articulated Concrete Matting Delivery (TS-750)	Submit to Engineer	At least thirty (30) days prior to Earthen Containment Dike Armoring Material Preparation (TS-301).
Written Notice of Completion of Work (GP-53)	Submit to Engineer	Provided in GP-53 Final Inspection and Acceptance.
End of Contract Time	Contractor and Owner	Provided in Instructions to Bidders.

*Official questions shall be submitted in writing by the Bidder to CPRA, in conformance with the terms as specified by the Engineer at the Pre-Bid Conference. What is stated in verbal correspondence during the Pre-Bid Conference is not binding. Official clarifications may be provided by the Engineer via formal issuance of Addenda.

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 Work Plan including the Shop Drawings of the proposed dewatering structures to be utilized for the performance of the Work as specified in TS-400.5.3
 - 4.1.3 Updates to the Work Plan including the first Submittal of the Dewatering and Fill Material Loss Prevention Plan as specified in TS-401.2;
 - 4.1.4 Updates to the dredge or Equipment data sheets;
 - 4.1.5 Proposed changes to the layout of the Work;
 - 4.1.6 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-200, including but not limited to the three (3) digital and three (3) hard copies of all Deliverables required in TS-200.10;

- 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;
 - 4.2.8 The Contractor shall contact the Engineer a minimum of five (5) working days prior to the anticipated completion of the Work in order to schedule the final inspection.
- 4.3 Post Construction: The following documents shall also be submitted to the Engineer after completion of the Work:
- 4.3.1 As-Built Drawings with revisions such as field or change orders shown in red such that revisions are easily distinguishable from the original design.

SP-5 CONTACT INFORMATION

Prior to the 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 Jordan DeLaune of the Coastal Protection and Restoration Authority. The address and contact information is as follows:

Coastal Protection and Restoration Authority (CPRA)
150 Terrace Avenue
Baton Rouge, LA 70802
Attn: Jordan DeLaune
Phone: (225) 342-1150
Email: Cpra.Bidding@LA.GOV

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

CPRA Construction Manager
David Chambers, P.E.
2045 Lakeshore Dr.
New Orleans, LA 70122
Phone: (504) 280-4069
Email: David.Chambers@LA.GOV

CPRA Project Engineer
Jacques Boudreaux, P.E.
150 Terrace Ave.
Baton Rouge, LA 70802
Phone: (225) 342-0242
Email: Jacques.Boudreaux@LA.GOV

The Owner and Engineer shall submit all written Claims, Field Orders, Change Orders and all other documentation 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. A 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 and Watercraft Liability

Automobile Liability Insurance and Watercraft 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 and/or watercraft. If any non-licensed motor vehicles and/or watercraft 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/or watercraft and such vehicles are utilized in the execution of the Contract, then hired and non-owned coverage is acceptable. If an automobile and/or watercraft is not utilized in the execution of the contract, then automobile and/or watercraft coverage is not required.

6.1.4 Excess Umbrella

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

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

6.2.1 Worker's Compensation and Employers Liability Coverage

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.

6.2.2 General Liability Coverage

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.

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.

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.

6.2.3 All Coverages

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.

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.

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.

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.

6.2.4 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.

6.2.5 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 # PO-0169

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.

6.2.6 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.

6.2.7 Worker's Compensation Indemnity

In the event 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.

6.2.8 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.

6.2.9 Performance and Payment Bond

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

The Contractor shall record within 30 days the Contract Between Owner and Contractor and Performance and Payment Bond with the Clerk of Court in the Parish(s) 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, labor, Materials, and incidentals to be used for Mobilization and Demobilization of all Equipment required as part of TS-100, including the Equipment Access Corridors/Dredge Pipe Corridors pipeline pre-lay and pickup plan, which shall be notated on the surveys specified in TS-200 and as required by SP-4;
- 7.2 The layout of all staging area(s) required for any and all other Work items;
- 7.3 The Hydraulic Dredge Data Sheet for all Equipment in **APPENDIX K**;
- 7.4 The Equipment Data Sheet for all Equipment in **APPENDIX L**;
- 7.5 The field Equipment, methodology, labor, Materials, incidentals, and any software to be used for survey data collection, post-processing, and calculations of quantities required as part of TS-200;

- 7.6 The field Equipment, methodology, labor, Materials, and incidentals to be used for Grade Stakes required as part of TS-220;
- 7.7 The field Equipment, methodology, labor, Materials, and incidentals to be used for Settlement Plates and Instrumented Settlement Plates required as part of TS-250 and TS-251;
- 7.8 The field Equipment, methodology, labor, Materials, and incidentals to be used for Earthen Containment Dikes, Woven and Non-Woven Geotextile Fabric, and Articulated Concrete Mats required as part of TS-300, TS-600, TS-640, and TS-750.
- 7.9 The field Equipment, methodology, labor, Materials, and incidentals to be used for Hydraulic Dredging and Marsh Fill required as part of TS-400, including the Layout and schedule for dredging the Borrow Areas;
- 7.10 Layout, sequencing, and schedule for hydraulic fill placement into the Marsh Creation Areas;
- 7.11 Layout and schedule for dewatering the Marsh Creation Areas, including proposed locations of dewatering structures;
- 7.12 Turbidity Control Plan.
- 7.13 Layout, schedule, and methodology for the construction of Earthen Plugs.

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 three thousand eight hundred thirty-five dollars (\$3,835) 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 to the Contractor.

SP-9 TRANSPORTATION

During construction layout, construction, and until final inspection and Acceptance, the Contractor shall provide a safe and reasonable means of transportation to and from dock, staging area(s), and construction areas for Owner, Engineer, Resident Project Representative, and Federal Sponsor. The schedule for dates, times, and pickup location shall be arranged by the Owner with the Contractor prior to mobilization.

During mobilization, construction layout, construction, demobilization, and until final inspection and Acceptance, should the Contractor utilize a boat, quarters barge, or quarters and stay at the project area overnight, then the Contractor shall provide room and board for the Resident Project Representative(s). In the event the Contractor is required to provide room and board for the Resident Project Representative(s), the Contractor shall also be responsible for providing the Resident Project Representative(s) with access to adequate cellular telephone service, access to electricity and utilities, and access to a high-speed internet connection capable of transmitting messages, files, data, and other Submittals indicative of the Work performed as part of this Contract.

The Contractor shall provide the Engineer, Resident Project Representative(s), Federal Sponsor, and other representatives from the State daily access to a boat and an air boat, or approved alternative vessel, as necessary, to properly inspect the various project features during the duration of construction activities. The Contractor shall supply an operator and fuel and shall maintain the boat and air boat. All mechanical malfunctions of the boat and airboat shall be repaired within twelve (12) hours.

The boat shall have the following features:

- An enclosed cabin space;
- Capable of maintaining 25 knots (29 mph);
- Minimum of six (6) passenger capacity;
- Coast Guard Certified;
- Operable marine radio;
- All safety equipment required by the Coast Guard for the size and type of that boat.
- Draft of two (2) feet or less.

The airboat shall have the following features:

- Minimum of four (4) passenger capacity;
- Capable of maintaining 25 knots (29 mph);
- Coast Guard Certified;
- Operable marine radio;
- All safety equipment required by the Coast Guard for the size and type of that boat.

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. 1, "MOBILIZATION AND DEMOBILIZATION (TS-100)".

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, heat, air conditioning, sufficient electrical outlets for a computer workstation, and a high-speed internet connection. The office furnishings shall include a work table, two (2) chairs, and locking doors for security purposes.

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. 1, "MOBILIZATION AND DEMOBILIZATION (TS-100)".

SP-11 LANDOWNER AND PIPELINE INFORMATION

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 below. Copies of the executed agreements with the grantors are included in the Land Rights Memorandum in **APPENDIX E**. The Contractor shall abide by the stipulations set forth by the executed agreements. The Contractor shall notify all grantors at

least fourteen (14) working days prior to initiation of access to the said lands for the purpose of work planning, implementing, constructing, operating, modifying, monitoring and maintaining the Project Site or as otherwise stipulated in the executed agreements. The Contractor shall abide by the stipulations set forth by the respective landowners below:

Bryan Burch

Contact: Bryan Burch
Phone: (985) 764-8972

George E. Burch

Contact: George E. Burch
Phone: (214) 402-8587

Chef Menteur Land Co., Ltd.

Contact: N/A
Phone: (985) 764-0296

CRX, LLC

Contact: Randy Lauman
Phone: (504) 512-4791

Felix Figueroa, Sr.

Contact: Felix Figueroa
Phone: (504) 888-4662

Park Investments, Ltd.

Contact: N/A
Phone: (504) 832-3556

George Winingham

Contact: George Winingham
Phone: (504) 662-5770

The Contractor shall add all grantors 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.

The Contractor shall notify Louisiana One Call at least fourteen (14) working days in advanced of any construction work. Based on surveys conducted during PO-0169 engineering and design, a pipeline is located 500 feet generally south of BA2, as shown on the Plans, with

another pipeline being located further south. Both of these pipelines have been abandoned in place by the previous owners according to LA DNR records. Notice of Construction have been provided to the previous owners: Apache and Kinder Morgan, as successor to Southern Natural Gas. Contact information for both companies is also provided. Both of these lines are notated as “NO EXCAVATION” to occur within the vicinity of these lines, as shown in the Plans. **No dredging, anchoring, spudding, or deep-drafting vessel passage is allowed in this area.** The Contractor shall follow the provisions stated in SP-16 as well as the warnings shown on the Plans when performing Work near these pipelines. The boundary of all “NO EXCAVATION” boundaries shall be demarcated with buoys or flagged stakes as part of the Pre-Construction Survey (TS-200) and prior to any hydraulic dredging or excavation activities performed as part of the Work, for the duration of construction activities. The Contractor shall maintain all buoys and flagged stakes during construction. The Contractor shall abide by the stipulations set forth by the respective pipeline owners below:

Apache

Contact: Tim Allen, P.L.S.
Phone: (985) 879-3583

Kinder Morgan

Contact: Rick Sellers
Phone: (337) 738-6144

The Contractor shall adhere to the most current publications of “Recommended Best Practices Guide for Safe Dredging Near Underwater Gas & Hazardous Liquid Pipelines”, www.cdmcs.org, and “Working Safely Near Underwater Pipelines”, www.camogroup.org.

No access, excavation, anchors or spuds shall be permitted within fifty feet (50’) of the right-of-way of any pipeline or utility unless specified otherwise in the Contract Documents. No hydraulic dredging shall be permitted within five hundred (500) feet of any existing pipeline or utility in the Borrow Areas unless otherwise specified in the Contract Documents.

SP-12 OYSTER LEASE AND SEED GROUND RESTRICTIONS

There are no known existing oyster leases or seed grounds near or within the boundaries of the Project Site. The Contractor shall keep all Equipment contained to the permitted Marsh Creation Areas, Borrow Areas, and Equipment Access Corridors and Dredge Pipeline Corridors. In addition, the Contractor shall avoid impacts to oyster seed grounds outside the boundaries of the Project Site.

SP-13 THREATENED AND ENDANGERED SPECIES

13.1 Sea Turtle and Smalltooth Sawfish

The United States Army Corps of Engineers consulted with the National Marine Fisheries Service (NMFS) of the U.S. Department of Commerce’s National Oceanic and Atmospheric Administration on the permit for this project pursuant to Section 7 of the Endangered Species Act. The documentation from this consultation is provided in **APPENDIX F**. The Contractor shall comply with the conditions listed therein throughout the performance of the Work.

During in-water work in areas that potentially support sea turtle and smalltooth sawfish all personnel associated with the project should be instructed about the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All on-site personnel are responsible for observing water-related activities for the presence of these species. All construction personnel are hereby advised that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

In accordance with the aforementioned special permit conditions, the Contractor shall ensure that the following are adhered to:

- The cutter/suction head shall remain completely buried in the bottom material during dredging operations.
- If pumping water through the cutter/suction head is necessary to dislodge material, clean pumps or cutter/suction head, etc., the pumping rate shall be slowed to the lowest rate possible until the cutter/suction head is at mid-depth, where the pumping rate can then be increased. Pumping rates shall be reduced to the slowest speed feasible during the cutter/suction head's return to the water bottom. Any areas that contain 75% sand or greater would be avoided.
- Should the Contractor utilize siltation barriers, said barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths 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 a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Services' Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- The cutter/suction head shall remain completely buried in the bottom material during dredging operations.

- If pumping water through the cutter/suction head is necessary to dislodge material, clean pumps or cutter/suction head, etc., the pumping rate shall be slowed to the lowest rate possible until the cutter/suction head is at mid-depth, where the pumping rate can then be increased.
- Pumping rates shall be reduced to the slowest speed feasible during the cutter/suction's return to the water bottom.

13.2 Manatee

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

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

- 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 or 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 8 ½" × 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 8 ½" × 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.

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 report any observed unauthorized removal or destruction of such resources by any person to the Owner and Engineer so the appropriate State of Louisiana authorities can be notified. The Contractor shall not resume Work at the site in question until State authorities have determined the significance of resource(s) of interest. The Unanticipated Discoveries Plan is located in **APPENDIX P**.

SP-15 OBSTRUCTIONS DISCOVERED ACROSS PROJECT SITE AND VICINITY

There are known occurrences of obstructions in and around the Project Site and surrounding vicinity.

In total, eight (8) critical obstructions were identified within the Project Site and surrounding vicinity. These are depicted in the Plans as avoidance areas, with centerpoints indicated for each. The Contractor shall utilize caution and shall document thoroughly all activities when operating within proximity of these locations. The Contractor shall maintain an avoidance area around each of the shown obstructions and shall not allow any disturbance to these locations when performing hydraulic dredging operations, laying dredge pipeline, or otherwise throughout the duration of Work. In the event any newly discovered items that have prehistoric, historical, archeological, or cultural value are encountered, the Contractor shall follow the provisions stated in SP-14.

In addition to the critical obstructions identified as part of Section 7 permitting, multiple non-ferrous obstructions were identified in the Project's Borrow Areas. It is the responsibility of the Contractor to become familiar with the obstructions and side scan sonar contacts that have been identified across the Project Site. Additionally, the Contractor shall be responsible for contacting Louisiana One Call at 1 (800) 272-3020 prior to the commencement of Work. The Contractor shall also perform a pre-construction survey to determine the presence of any unknown anomalies (TS-200) and may not proceed with other items of the Work until this survey has been reviewed by the Engineer and Owner. The Contractor shall adhere to the most current publications of "Recommended Best Practices Guide for Safe Dredging Near Underwater Gas & Hazardous Liquid Pipelines", www.cdmcs.org, and "Working Safely Near Underwater Pipelines", www.camogroup.com. The Contractor shall review the design data collection information, including magnetometer survey data and geophysical survey deliverables, contained in **APPENDIX J**.

SP-16 NAVIGATION

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-17 NOTICE TO MARINERS

The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard (USCG) at least 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. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least seven (7) days prior to the commencement of this dredging operation. The USCG 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.

SP-18 VESSEL-SHORE TRANSFERS

For shore-to-vessel and vessel-to-shore transfers of personnel and supplies, the Contractor may utilize any commercial, public, or private facility for shallow draft vessels. It is the responsibility of the Contractor to obtain the required permission from the facility owner and to pay any costs associated with the use of the sites. The Contractor shall be responsible for any damages caused by the use of any site for landing and transfers, and shall maintain navigation through all navigation channels and boat ramps. The Contractor shall use any landing site, transfer area, or staging area at their own risk. For informational purposes, the Contractor will be required to inform the Engineer of the site that the Contractor will be using for vessel-shore transfers. Temporary docks and landing facilities may be used. Details on these features shall be included in the Work Plan for review by the Engineer.

SP-19 AIDS TO NAVIGATION

The Contractor shall contact the Eighth Coastal Region District of the USCG 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 USCG typically requires that aids to navigation be installed along dredge pipelines, temporary spoil banks and access channels. The Contractor shall also submit a permit application and obtain a permit from the USCG 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 to the Engineer at least seven (7) days prior to performing any excavation or hydraulic dredging.

SP-20 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-21 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 (1) week prior to 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. 1, "MOBILIZATION AND DEMOBILIZATION (TS-100)". Unrestricted rights to use of the photos shall be conveyed to the Owner.

SP-22 FINAL CLEAN-UP

Final clean-up shall include the removal of the Contractor's plant, all Equipment, and materials either for disposal or reuse. The Contractor shall remove all non-perishable debris, trash, and garbage from the Project Site prior to final Acceptance. Unless otherwise approved in writing by the Engineer, the Contractor is not permitted to abandon pipelines, cables, pipeline supports, pontoons, or other equipment or materials in the disposal area, pipeline access areas, and water areas, or in any harbors, passes, or inlets, or other areas adjacent to the Project Site. Any stakes or other markers placed by the Contractor shall be removed as a part of the final clean-up. All stakes, including grade stakes, placed as part of the Work, shall be completely removed and not be left buried in the fill.

SP-23 MISPLACED MATERIAL AND EQUIPMENT

The Project Site is within close proximity to residential property, camps, recreational areas, and areas of public congregation. This includes the presence of heavy marine traffic in and around The Rigolets and Lake Pontchartrain. The Contractor should at all times be aware of the location and/or position of the any slurry, dredged sediment, Equipment, or other Materials. Should the Contractor, during the progress of the Work misplace any slurry, dredged sediment,

Equipment, or other Materials outside of what is authorized and permitted without the approval of the Owner or Engineer, the Contractor shall give immediate notice, with description and location of such misplaced Materials to the Owner and Engineer. Following coordination with the Engineer, the Contractor shall immediately recover and remove the misplaced Material. This may require redeposit or redistribution of misplaced dredge sediments as directed by the Owner or Engineer. Misplaced Materials shall be removed at the Contractor's expense. Additionally, the Contractor will be responsible for restoring unauthorized disposal areas to pre-construction conditions at his/her own expense.

In the event of refusal, neglect, or delay in compliance with the above requirements, such misplaced Materials may be removed by the Owner, and the cost of such removal may be deducted from any money due or to become due to the Contractor or may be recovered under his/he bond.

SP-24 PROHIBITION OF DISCRIMINATORY BOYCOTTS OF ISRAEL 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 or proposer 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.

SP-25 COMPLIANCE WITH STATE AND FEDERAL LAW

The Contractor and any subcontractors must comply with applicable Federal labor laws covering non-Federal construction, including but not limited to, the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 et seq.) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c) and to the extent if applicable 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change to the provisions of the Davis-Bacon Act) (formerly 40 U.S.C. 276a et seq). Contractor further agrees, in the case of any equipment and/or product authorized to be purchased under this Contract, to comply with the Buy American Act 41 U.S.C. 8301-8305 (formerly 41 U.S.C. 10a-10c).

Further, the Contractor and its employees, subcontractors and agents shall agree to comply with all applicable Federal, State, and Local laws, policies, and ordinances, in carrying out all provisions of this Contract.

END OF PART II - SPECIAL PROVISIONS

PART III TECHNICAL SPECIFICATIONS

TS-100 MOBILIZATION AND DEMOBILIZATION

100.1 Scope:

The Contractor shall furnish all of the labor and Equipment necessary to mobilize a hydraulic dredge and any necessary booster pumps to the Borrow Areas, as well as the furnishing of all labor, equipment, construction materials (including dredge pipeline), and incidentals to and from the Project Site in order to perform the Work. The Contractor shall demobilize the equipment from the Project Site upon acceptance of all Marsh Creation Areas. This section shall exclude the Work and cost of operating and maintaining the hydraulic dredge and booster pumps, and all items specified in these Specifications. This shall include but is not limited to establishing offices, buildings, and other facilities necessary for the Work. As part of this Bid Item, the Contractor shall obtain bonds, required insurance, and include any other Pre-Construction expenses necessary to perform the Work. This section shall exclude the cost of other construction materials explicitly listed on the Bid Form.

100.2 Arbitrary Mobilization and Demobilization by Contractor:

The Owner will pay for only one Mobilization and Demobilization effort. Should the Contractor choose to demobilize and/or remobilize prior to completing the Work, subsequent remobilization of the dredge and all other necessary Equipment shall be performed at no additional expense to the Owner.

100.3 Hydraulic Cutterhead Dredge(s) and Plant:

The Contractor shall utilize at least one (1) Hydraulic Cutterhead Dredge in the Borrow Areas. For the purposes of mobilizing to, and mining and conveying the underwater sediments from within the Borrow Areas, no other type of dredge(s) will be allowed. The dredge(s) shall be in satisfactory working condition and subject to inspection by the Engineer or Resident Project Representative at all times throughout the duration of the Contract Time.

100.3.1 Selection:

The Contractor shall select the most appropriate size of Hydraulic Cutterhead Dredge and booster pump(s) which will efficiently perform the Work within the Contract Time, maintain the integrity of the Earthen Containment Dikes during Earthen Containment Dike Armoring installation and Hydraulic Dredging and Marsh Fill, and achieve the construction fill elevations of the Marsh Creation Areas within the specified tolerances.

The Contractor shall select a Hydraulic Cutterhead Dredge(s) that can access the Borrow Areas without conflicting with existing infrastructure or resulting in waterbottom disturbances of any kind, with the exception of within the Borrow Area boundaries as shown in the Plans. The Hydraulic Cutterhead dredge(s) shall remain floating at all times during the Work.

100.3.2 Hydraulic Dredge Data Sheet:

The Hydraulic Dredge Data Sheet in **APPENDIX K** shall be included in the Work Plan. Submittal of the Hydraulic Dredge Data Sheet shall constitute a certificate that the described Equipment is available to, and under control of, the Contractor. The data is pertinent to the evaluation of the proposed dredge and its capability to perform the Work. The Contractor may omit data or information that is considered to be proprietary.

100.3.3 Booster Pump(s):

The Equipment Data Sheet in **APPENDIX L** shall be included in the Work Plan for any and all Booster Pump(s) that is(are) proposed to perform the Work. The Contractor may omit data or information that is considered to be proprietary.

100.4 Justification of Costs:

In the event the unit cost does not bear a reasonable relation to the amount of work for Mobilization and Demobilization in the Contract, Engineer may require Contractor to produce cost data to justify the unit cost in the Bid. Failure to justify such cost to the satisfaction of Engineer will result in payment of actual Mobilization costs, as determined by Engineer at the completion of Mobilization, and actual Demobilization cost at the completion of the Demobilization, and payment of the remainder of this item in the final payment under this contract. The determination of Engineer is not subject to appeal.

100.5 Ratio of Effort:

Forty percent (40%) of the lump sum price will be paid to the Contractor upon completion of mobilization and installation of the sediment pipeline from one of the Borrow Areas to one of the Marsh Creation Areas. Forty percent (40%) of the lump sum price will be paid to the Contractor upon arrival of the hydraulic dredge to one of the Borrow Areas. Twenty percent (20%) of the lump sum price will be paid to the Contractor upon completion of demobilization from the Project Site.

- 100.6 Measurement and Payment: Payment for Mobilization and Demobilization will be paid at the Contract lump sum price for Bid Item No. 1, "MOBILIZATION AND DEMOBILIZATION (TS-100)". Payment shall constitute full compensation for furnishing the labor, Equipment, construction Materials, and incidentals related to this item of Work, including establishing offices, buildings, and other facilities for the Work, obtaining bonds, insurance, permit application fees, and any other associated expenses.

TS-150 AIDS TO NAVIGATION

150.1 General Description:

The Contractor shall provide, install, maintain, and remove aids to navigation as specified herein at no additional expense to the Owner. The Contractor shall contact the Eighth Coastal Region District of the United States Coast Guard (USCG) 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, but not be limited to, warning signs, buoys, beacons and/or lights. The Contractor shall also submit a permit

application and obtain a permit from the USCG 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. Discharge lines that cross a navigable channel shall be submerged. Lighted aids to navigation shall be deployed prior to commencement of any dredging operations. Lighted aids to navigation are required to maintain safe working conditions for construction in navigation channels. Any damages to existing U.S. Coast Guard or private navigation aids caused by the Contractor shall be repaired by the Contractor to U.S. Coast Guard standards at no expense to the Owner. The Contractor shall provide a copy of the permit and permit application to the Engineer at least seven (7) days prior to installation of the dredge pipeline and/or performing any excavation. The Contractor shall notify the U.S. Coast Guard 30 days prior to mobilization in accordance with subparagraph "Notice to Mariners" as described in SP-17. The notification shall contain maps, latitude/longitude coordinates, and descriptions of aids to navigation for inclusion in the Notice to Mariners.

150.2 Temporary Warning Signs:

The USCG typically requires that Temporary Warning Signs be installed along the temporary spoil placement areas associated with the access channel. The Contractor shall furnish all of the materials, labor and equipment necessary to construct and any required Temporary Warning Signs in accordance with the USCG Requirements.

150.3 Operation and Maintenance:

The Contractor shall operate and maintain all aids to navigation, piles, chains, anchors, and buoys. Should the Contractor's aids to navigation be displaced from their positioned locations, or otherwise fail to function as required, the Contractor shall reposition/repair the aids within 24 hours.

If any of the aids are not maintained in the proper location or condition, the Contractor shall cease dredging operations until the buoys are maintained, replaced, or repositioned.

150.4 Lighting and Markings:

No lighting is required for the marking of the perimeter of the dredge area. The dredge, anchor buoys, and floating dredge lines in the area shall be marked in accordance with U.S. Coast Guard Navigation Rules. The lights must have a one mile nominal range and should be set every half mile.

150.5 Removal:

The Contractor shall remove all aids to navigation, piles, chains, anchors and buoys from the project area upon completion of this project.

150.6 Measurement and Payment:

No direct payment will be made for this item. The Contractor shall include all costs for Aids to Navigation in the Lump Sum price for Bid Item No. 7, "ACCESS AND FLOTATION CHANNELS (TS-330)".

TS-200 SURVEYS

200.1 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 land surveyor licensed in the state of Louisiana. All survey drawings shall be signed and sealed by the Louisiana licensed professional surveyor, or professional engineer, under which supervision of the surveys were conducted. The Contractor shall provide schedules for the survey field work and deliverables in the Work Plan.

200.2 Notifications to the Engineer:

The Contractor shall notify the Engineer and Resident Project Representative 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 the field data collection for each survey is complete. The Owner may stop the associated portions of the Work if the notifications are not made. The Contractor shall not submit a Claim for this type of Work stoppage.

200.3 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-Epoch 2010.00. Horizontal and vertical control shall be established by using the CPRA monument provided in **APPENDIX H**. Temporary Benchmarks (TBMs) shall be installed as deemed necessary by the Contractor to perform all surveys. Proposed TBMs shall be included in the Work Plan and shown on Submittals.

200.4 Method:

Surveys shall follow CPRA's *Contractor's Guide to the Standards of Practice – Surveying* (<http://coastal.la.gov/engineering-and-design-standards/>) and utilize conventional Real-Time Kinematic (RTK) surveying methods or an appropriate Global Navigation Satellite System (GNSS) or Global Positioning System (GPS) Real Time Network such as the Gulfnet Virtual Real-Time Network (VRS).

200.5 Survey Equipment:

The Contractor shall utilize appropriate Equipment to survey the Work as follows:

200.5.1 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. Bathymetric and Topographic Surveys shall overlap by twenty-five (25) feet at all interfaces between land and water.

200.5.2 Bathymetric Surveys:

Bathymetric Survey Equipment shall have a minimum vertical accuracy of one-tenth (0.1) of a foot $\pm 0.1\%$ of depth and a minimum horizontal accuracy of one-tenth (0.1) of a foot. Bathymetric Surveys collected on board vessels must be differentially corrected to the referenced datum for tidal fluctuations and vessel pitch, roll, heave, and yaw. Bathymetric and topographic Surveys shall overlap by twenty-five (25) feet at all interfaces between land and water.

200.5.3 Magnetometer Surveys:

Magnetometer Survey Equipment shall have a minimum accuracy of three (3) gammas throughout its operational range.

200.5.4 Survey Stakes:

Survey Stakes utilized for topographic Survey 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 survey stakeout shall consist of bamboo cane of sufficient length to remain a minimum of two (2) feet above mean water level.

200.5.5 Grade Stakes:

Refer to TS-220.

200.6 Design Survey:

The Design Survey Report is provided in **APPENDIX J** and is for informational purposes only.

200.7 Pre-Construction Survey:

The Pre-Construction Survey shall be performed after the Pre-Construction Conference, Acceptance of the Work Plan, and prior to Mobilization, unless otherwise stated in these Specifications. This Survey shall be used to verify the existing conditions at the Project Site, adjust quantities of the Bid items (if needed), and modify the layout of the Work 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 follow the Construction Survey Layout shown on the Plans and shall include the following items:

200.7.1 Quantities:

The Pre-Construction Survey shall provide the calculated Quantities of all the Bid items. The methodology or software that is proposed to be used to calculate Quantities shall be approved by the Engineer and provided in the Work Plan.

200.7.2 Temporary Benchmarks:

Contractor shall install Temporary Benchmarks at any location within the Project Site as necessary to perform the Work. All Temporary Benchmarks shall be repaired and resurveyed if disturbed or damaged during construction.

200.7.3 Temporary Aids to Navigation:

All Temporary Aids to Navigation shall be surveyed after installation and coordinates submitted to the Owner within two (2) weeks of installation.

200.7.4 Existing Infrastructure:

All Infrastructure (pipelines, power lines, bridges, etc.) that is located within one-hundred fifty (150) feet of the project features shall be surveyed and marked at a minimum of fifty (50) foot intervals and all points of inflection. The proposed methods for marking the Infrastructure shall be included in the Work Plan. Pipelines shall be identified to a CI/ASCE 38-02 minimum utility level of B and probed for depth of cover (top of pipe to existing ground) at fifty (50) foot intervals.

200.7.5 Marsh Creation Area Magnetometer Surveying:

The Contractor shall propose a Marsh Creation Area Pre-Construction Magnetometer Survey, which shall be included in the Work Plan and subject to approval by the Engineer. Upon approval, the Contractor shall perform this survey prior to the surveying discussed in TS-200.7.9 and TS-200.7.12. In the event of significant magnetic detections within the Marsh Creation Area(s), the Contractor may be required to propose equipment access routes and/or avoidance zones within the Marsh Creation Area(s), in order to avoid potential hazards. Should significant magnetic detections warrant, the Engineer shall reserve the right to perform re-alignments of project features, as necessary to avoid potential hazards and to minimize reductions in project footprint. Based on such re-alignments, the Contractor may be required to perform additional Marsh Creation Area Pre-Construction Magnetometer Surveying in locations that were not covered by the previous survey. The Contractor shall follow TS-200.7.6 for all Marsh Creation Area Magnetometer Surveying.

200.7.6 Significant Magnetic Detections:

For all anomalies that exhibit amplitudes greater than fifty (50) gammas, the elevation, mudline elevation, 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 any 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 sources of anomalies and provide corrective measures shall not provide grounds for any Claims against the Owner.

200.7.7 Equipment Access Corridors and Dredge Pipe Corridors:

A magnetometer, bathymetric, and/or topographic survey shall be performed along the centerline of the Equipment Access Corridors, to be proposed in the Work Plan, and Dredge Pipe Corridors, as shown on the Plans, prior to mobilization of Equipment. This survey shall be performed along the entire corridor length of the Dredge Pipe Corridors prior to placement of the dredge pipeline and mobilization of necessary Equipment, and shall be submitted in the Work Plan and shall be subject to approval by the Engineer. Unless otherwise directed by the Engineer, these surveys shall be conducted in accordance with the construction survey layout as shown on the Plans and as approved by the Engineer during Work Plan review. Bottom elevations and coordinates shall be recorded along the centerline of the Equipment Access Corridors and Dredge Pipe Corridors at one-hundred (100) foot intervals, all points of inflection, and changes in elevation greater than one-half (0.5) foot. As shown on the Plans, bottom elevations and coordinates shall be recorded along the perpendicular transects at five (5) foot intervals, at all points of inflection, and at all changes in elevation greater than one-half (0.5) foot. The Contractor shall establish stationing along the entirety of the Equipment Access Corridors and Dredge Pipe Corridors, along the centerline alignment of the respective corridor.

200.7.7.1 Dredge Pipe Alignment Routine Check Surveys:

An initial survey shall be conducted following installation of the submerged sediment pipeline within the dredge pipeline alignment. The initial Survey must be submitted to and approved by the Engineer prior to utilization of the submerged sediment pipeline for sediment transport.

200.7.8 Borrow Areas:

A bathymetric and magnetometer survey shall be performed according to the survey layout for the Borrow Areas as shown in the Plans. The bathymetric survey shall be performed using single beam with dual frequencies. Waterbottom elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the transects shown on the Plans and extend one-hundred (100) feet beyond the boundary of the Borrow Area limits of pay. The projected quantity of available borrow shall be calculated based on this survey and the design dimensions shown on the Plans. **The Contractor shall adhere to the provisions of SP-14 and SP-15 in the event obstructions are encountered. Additionally, the location of the obstruction(s) shall be shown on survey drawing submittals.**

200.7.9 Marsh Creation Areas:

A bathymetric and/or topographic survey shall be performed according to the survey layout for the Marsh Creation Areas as shown in the Plans. Ground and/or waterbottom elevations and coordinates shall be recorded at twenty-five

(25) foot intervals, at changes in elevation greater than one-half (0.5) foot, and at locations where obvious natural or manmade features are observed, such as meandering channels, canals, or trenasses. The Contractor shall calculate the projected fill quantities for the Marsh Creation Areas based on this survey and the construction marsh fill elevations. **So that interior Containment Dike Borrow Areas are captured in this survey and that these volumes are quantified, the Contractor shall not begin the Pre-Construction Marsh Creation Area Surveys until the constructed Earthen Containment Dikes (as applicable) for the respective Marsh Creation Area have been Accepted by the Engineer.** Details of this survey shall be included in the Work Plan.

200.7.9.1 Dewatering Structures:

The location of all Dewatering Structure(s) shall be surveyed as part of a Dewatering Structures Pre-Construction Survey, with their locations in the Pre-Construction Survey submittals. The location and quantity of Dewatering Structure(s) shall be subject to approval by the Engineer.

200.7.9.2 Earthen Plugs:

A topographic/bathymetric and magnetometer survey shall be performed at the two (2) Earthen Plug locations using a ten (10) foot wide evenly spaced grid at each location. These transects shall extend a minimum of twenty-five (25) feet into the adjacent marsh and on either side of the earthen plug construction and earthen plug borrow area at both locations. The ground elevation and coordinates shall be recorded every ten (10) feet or where there is a change in grade greater than +/-0.5 feet along the transects. The top of cut of each earthen plug borrow area shall be staked at the corners.

200.7.9.3 Nearby Channels and Adjacent Areas:

Topographic, bathymetric and magnetometer surveying shall be performed along all transects as indicated in the construction survey layout as shown in the Plans. The Contractor shall denote the limits of all nearby channels and adjacent properties in the Pre-Construction Survey submittal, which shall be subject to approval by the Engineer. The as-approved limits shall remain free of sedimentation due to dewatering of decanted fill material at all times. The ground elevation and coordinates shall be recorded every ten (10) feet or where there is a change in grade greater than +/- 0.5 feet along the transects.

The as-denoted limits shall be indicated in all relevant drawings shown in the Pre-Construction Survey.

200.7.10 Grade Stakes:

Grade Stakes shall be installed and surveyed by the Contractor at locations necessary to monitor dredge fill elevations during construction of the Marsh Creation Areas. Horizontal and vertical coordinates shall be determined for all

grade stakes installed. The identification number, existing ground elevation, coordinates, and top of grade stake elevation shall be recorded and submitted to the Engineer after all grade stakes have been installed in the Marsh Creation Areas to confirm proper placement of the grade stake. The Grade Stakes shall be assembled and installed per the guidelines shown in the Plans. The Grade Stakes shall be installed and surveyed no more than ten (10) days prior to commencement of hydraulic dredge fill operations in the Marsh Creation Areas. Grade Stakes that are damaged or removed during the Work shall be immediately reinstalled and resurveyed, at no additional cost to the Owner. Each Marsh Creation Area shall include a minimum quantity of Grade Stakes as outlined below:

MCA1: 10 Grade Stakes
MCA2: 8 Grade Stakes
MCA3: 6 Grade Stakes

The locations of the Grade Stakes shall be proposed by the Contractor and submitted in the Work Plan for approval by the Engineer.

200.7.11 Settlement Plates and Instrumented Settlement Plates:

Settlement Plates and Instrumented Settlement Plates shall be installed and surveyed by the Contractor at locations necessary to monitor settlement during construction of the Marsh Creation Areas. Each Settlement Plate and Instrumented Settlement Plate shall be surveyed immediately after installation in the Marsh Creation Area(s). The identification number, existing ground elevation, coordinates and elevation of the top of pipe and/or base plate shall be recorded. This survey shall be repeated every thirty (30) days until hydraulic dredge placement begins and no more than five (5) days prior to dredge material placement into the respective Marsh Creation Area(s).

200.7.12 Earthen Containment Dikes:

A magnetometer, bathymetric, and/or topographic survey shall be performed along the centerline alignment and perpendicular transects of the Earthen Containment Dikes and their respective Earthen Containment Dike Borrow areas, as shown in the Plans. Ground elevations and coordinates shall be recorded at twenty-five (25) foot intervals along the centerline, change in grade greater than one-half (0.5) foot, at all points of inflection, and at locations where obvious natural or manmade features are observed, such as meandering channels, canals, or trenasses. The projected quantities for the Earthen Containment Dikes shall be calculated based on this survey and the Earthen Containment Dike dimensions shown in the Plans. The Contractor shall establish stationing along the centerline alignment of the Earthen Containment Dike. The Contractor shall also utilize survey stakes with different colorcoded flagging in order to differentiate between the various types of Earthen Containment Dike surveying as prescribed in the sections below.

200.7.12.1 Earthen Containment Dike Alignment Stakeout:

Survey stakes shall be placed at one-hundred (100) foot intervals and at all points of inflection along the centerline of the dike, inside and outside toes of the Earthen Containment Dike(s), and inside and outside extents of the Earthen Containment Dike(s) borrow area.

200.7.12.2 Earthen Containment Dike Realignment:

If the Engineer realigns any portion of the Earthen Containment Dike(s) and its(their) associated borrow area(s), the Contractor shall re-survey the realigned portion of the Earthen Containment Dike(s) and borrow area and recalculate projected quantities.

200.7.13 Access and Flotation Channels:

In order to facilitate the passage of vessels requiring additional flotation access, the Contractor may elect to use Access and Flotation Channels.

Depending on the draft requirements of the Contractor's Equipment, Access and Flotation Channels may not be needed, or may not need to be dredged to the elevation shown on the Plans. As such, the use of Access and Flotation Channels shall be elective based on the Equipment needs of the Contractor.

If the Contractor does not dredge any additional flotation access, no surveying shall be required for Access and Flotation Channels. However, the Contractor will still be required to perform the Pre-Construction Survey for Equipment Access Corridors and Dredge Pipe Corridors, as discussed in TS-200.7.7.

If the Contractor does intend to dredge additional flotation access, the Contractor shall perform a Pre-Construction Survey for Access and Flotation Channels, which shall include magnetometer and topographic/bathymetric surveying. The limits of dredging, temporary spoil placement, and temporary warning signs shall be determined subsequent to the Access and Flotation Channels Pre-Construction Survey, and shall be submitted to the Engineer prior to excavation of any material.

The Access and Flotation Channels centerlines shall be surveyed and recorded at 50 foot intervals and at changes in bathymetry/topography greater than one (1) foot, along these survey transects. Cross sections shall also be taken every 250 feet and extend 250 feet on each side of the centerline profile, or to the extent of proposed temporary spoil placement, whichever is greater. Elevations shall be surveyed and recorded every 25 feet, and at changes in bathymetry/topography greater than one (1) foot, along the se survey transects.

The Access and Flotation Channels Pre-Construction Survey shall be submitted and approved by the Engineer prior to Mobilization of the mechanical dredge Equipment that will perform the excavation of the channels. Details of this survey shall be included in the Work Plan.

The Contractor's ability to use Access and Flotation Channels at MCA2 and MCA3 are subject to the status of award of Alternate No. 1 and Alternate No. 2.

200.7.14 Woven Geotextile Fabric:

For each MCA requiring Woven Geotextile Fabric, the Contractor shall perform a Pre-Construction Survey denoting the limits of Woven Geotextile Fabric to be placed. This survey may be coincident with the Earthen Containment Dike Alignment Stakeout discussed in TS-200.7.12.1. For locations where an incremental first lift is required in order to raise the Woven Geotextile Fabric placement area up to the minimum placement elevation of -1.5 FT NAVD88, the Contractor shall perform the Woven Geotextile Fabric Pre-Construction Survey immediately following completion of the incremental first lift of Earthen Containment Dike construction. Survey stakes are not required for placement as part of the Woven Geotextile Fabric Pre-Construction Survey; however, the Pre-Construction Survey submittal shall denote the limits of Woven Geotextile Fabric placement in all locations where those limits differ from the inside and outside toes of Earthen Containment Dike.

200.7.15 Non-Woven Geotextile Fabric:

As shown on the Plans, Earthen Containment Dike Armoring is to be installed along select portions of containment dike throughout the Project Site. This Earthen Containment Dike Armoring system requires the placement of Non-Woven Geotextile Fabric to overlay the newly constructed sections of Earthen Containment Dike. This Non-Woven Geotextile Fabric layer is required to have a continuous matrix of Articulated Concrete Mats placed atop the fabric, in order to complete the Earthen Containment Dike Armoring System. As part of the Non-Woven Geotextile Fabric Pre-Construction Survey, the Contractor shall denote in the survey submittal where the limits of Non-Woven Geotextile Fabric are to be placed. The Contractor shall utilize the Final Process or As-Built Survey for the Earthen Containment Dikes as described in TS-200.8.7 and TS-200.9.7.

Note: The Pre-Construction Survey submittal required by this Specification may be utilized for the Articulated Concrete Mats Pre-Construction Survey requirements, as discussed in TS-200.7.16.

As shown on the Plans, all three (3) MCAs (MCA1, MCA2, and MCA3) may require Earthen Containment Dike Armoring to be placed along select reaches of containment dike, which are subject to the status of award of Alternate No. 1 and Alternate No. 2.

200.7.16 Articulated Concrete Mats:

As shown on the Plans, Earthen Containment Dike Armoring is to be installed along select portions of containment dike throughout the Project Site. This Earthen Containment Dike Armoring system requires the placement of Non-Woven Geotextile Fabric to overlay the newly constructed sections of Earthen Containment Dike. This Non-Woven Geotextile Fabric layer is required to have

a continuous matrix of Articulated Concrete Mats (ACMs) placed atop the fabric, in order to complete the Earthen Containment Dike Armoring System.

As part of the Articulated Concrete Mats Pre-Construction Survey, the Contractor shall denote in the survey submittal where the limits of ACMs are to be placed. The Contractor shall utilize the Final Process or As-Built Survey for the Earthen Containment Dikes as described in TS-200.8.7 and TS-200.9.7.

Note: The Pre-Construction Survey submittal required by this Specification may be utilized for the Non-Woven Geotextile Fabric Pre-Construction Survey requirements, as discussed in TS-200.7.15.

As shown on the Plans, all three (3) MCAs (MCA1, MCA2, and MCA3) may require Earthen Containment Dike Armoring to be placed along select reaches of containment dike, which are subject to the status of award of Alternate No. 1 and Alternate No. 2.

200.8 Process Surveys:

The Process Surveys shall be used to verify partial payments and Acceptance for completed portions of the Work and to adjust quantities of 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. When coincident with the Pre-Construction Surveys, Process Surveys shall be consistent with the Pre-Construction Survey layouts, shall incorporate any necessary modifications to these surveys, and shall include the following items:

200.8.1 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 Surveys.

200.8.2 Equipment Access Corridors and Dredge Pipe Corridors:

Unless otherwise directed by the Engineer, no Process Surveys are required for the Equipment Access Corridors.

The Contractor shall perform Process Surveys of the Dredge Pipe Corridors along the same transect layout as performed for the Pre-Construction Survey.

After the initial Survey, the submerged sediment pipeline shall be resurveyed weekly to determine if there are any leaks in the submerged line. The weekly check Survey shall consist of two (2) lines located ten (10) feet from each side of the submerged sediment pipeline centerline running the length of the submerged sediment pipeline. If a leak, or elevated area, is detected, the area in the immediate vicinity shall be surveyed at a grid spacing of no more than fifty (50) feet (Survey lines shall be orientated perpendicular to the submerged pipeline). The Survey lines shall extend a minimum of one-hundred (100) feet from the edge of the elevated area. The results of the gridded Survey may be used to calculate the volume of material contained in the elevated area, which may

be deducted from the cut volume for payment purposes. Additional inspection Surveys shall be conducted immediately upon detection of any loss of pressure indicative of leaks, the passage of a major storm, and/or evidence of pipeline disturbance by other activities (fishing or oyster vessels, etc.). Inspection Survey reports with quality control analysis shall be submitted to Engineer for concurrence within five (5) calendar days of completion of each survey.

If, prior to project completion and final demobilization, the dredge plant and supporting equipment (e.g. booster pumps) are temporarily or arbitrarily demobilized from the Work Area for more than fourteen (14) consecutive calendar Days effectively leaving the dredge pipelines at the Project Site, a monitoring Survey of the sediment pipeline shall be conducted within twenty- one (21) calendar Days of the temporary or arbitrary demobilization and monthly thereafter.

The Owner reserves the right to require additional Surveys in the wake of a severe storm event, at no additional cost to the Owner.

200.8.3 Borrow Areas:

The Contractor shall delineate the specific dredged areas within the Borrow Area to be surveyed for payment. These dredged sections of the Borrow Areas shall be surveyed to determine pay volumes for hydraulic placement of dredged material. If the Contractor remobilizes to any portion of the Borrow Area(s) which has(have) been previously dredged, that portion of the Borrow Area shall be resurveyed before and after it is re-dredged. This survey shall follow the same transects as the Pre-Construction Survey. **The Contractor shall adhere to the provisions of SP-14 and SP-15 in the event obstructions are encountered. Additionally, the location of obstruction shall be shown on survey drawing submittals.**

200.8.4 Marsh Creation Areas:

The Process Surveys associated with the Marsh Creation Areas shall be composed of the daily grade stake, weekly settlement plate surveys, and weekly instrumented settlement plate surveys as stated in TS-200.8.5 and TS-200.8.6.

200.8.4.1 Earthen Plugs:

The Earthen Plug placement areas and Earthen Plug borrow areas shall be surveyed immediately following Earthen Plug construction. Surveys shall be coincident with TS-200.7.9.2 and shall include shots of the inside and outside toes and crowns for the Earthen Plugs and outer extents of the borrow areas. The Earthen Plugs and Earthen Plug borrow areas shall be surveyed bi-weekly.

200.8.4.2 Nearby Channels and Adjacent Areas:

The Contractor shall perform Process Surveys within the limits denoted as nearby channels and adjacent properties in the Pre-

Construction Survey. The Process Surveys of nearby channels and adjacent properties shall occur weekly at all times that dewatering is in effect. These Process Surveys shall be submitted to the Engineer no more than two (2) days following completion of the survey.

200.8.5 Grade Stakes:

Dredge slurry elevations shall be recorded to the nearest tenth (0.1) of a foot daily, based on a visual inspection of the Grade Stakes, and submitted in the daily reports once hydraulic dredging has begun. Daily readings shall continue through Acceptance of the all Marsh Creation Areas. Additionally, the Contractor shall resurvey the Grade Stakes bi-weekly in accordance with TS-200.7.10 to maintain the accuracy of the visual inspections. The weekly Grade Stake accuracy surveys shall be submitted in the daily report, as they are completed.

200.8.6 Settlement Plates and Instrumented Settlement Plates:

For Settlement Plates and Instrumented Settlement Plates, each plate shall be surveyed immediately after installation in their respective locations. The identification number, existing ground elevation, coordinates and elevation of the top of pipe shall be recorded. This survey shall be repeated every thirty (30) days. For Settlement Plates, the dike crest elevation (for Settlement Plates located within dike) and/or the dredge slurry elevation (for Settlement Plates located within marsh fill) and top of pipe for all plates shall be surveyed bi-weekly during containment dike construction and until all marsh creation areas are accepted. For Instrumented Settlement Plates, the dredge slurry elevation and top of pipe for all plates shall be surveyed bi-weekly during fill placement and until all marsh creation areas are accepted.

200.8.7 Earthen Containment Dikes:

The topography of the Earthen Containment Dikes and associated borrow areas shall be surveyed after being fully constructed and prior to placement of the hydraulic dredge fill material into the respective Marsh Creation Area. Ground elevations and coordinates shall be recorded for the inside and outside crests and toes of the dikes and the inside and outside troughs of the associated borrow areas. These measurements shall be repeated at two-hundred and fifty (250) foot intervals along the centerline of the dike and at all points of inflection. The total in-place fill quantity and excavated borrow quantity for the dikes around each marsh creation fill area shall also be calculated and shown on the survey plans.

Following completion of Earthen Containment Dike construction and prior to Acceptance by the Engineer, as well as following Earthen Containment Dike Acceptance by the Engineer and prior to Acceptance of all Marsh Creation Areas, the Contractor shall resurvey the centerline profile every fourteen (14) days. During these surveys, horizontal and vertical positions shall be surveyed and recorded every twenty-five (25) feet and at changes in topography greater than one-half (0.5) foot. The Engineer may require dike cross sections (locations chosen by the Engineer) to be surveyed based on results of the bi-weekly centerline profile surveys. These cross sections shall extend twenty-five (25)

feet beyond the outer limits of the adjacent dike borrow area, with horizontal and vertical positions recorded every twenty-five (25) feet and at changes in topography greater than one-half (0.5) foot.

200.8.8 Access and Flotation Channels:

Once the Contractor deems all Access and Flotation Channels are acceptable for use, or prior to hydraulic dredging (at the latest), the dredged portion of the Access and Flotation Channels shall be resurveyed, in accordance with TS-200.7.13. This shall be done to ensure that the dredged channels are constructed to the lines, grades, and elevations required and as agreed upon by Work Plan approval.

The Contractor's ability to use Access and Flotation Channels at MCA2 and MCA3 are subject to the status of award of Alternate No. 1 and Alternate No. 2.

200.8.9 Woven Geotextile Fabric:

For each MCA requiring Woven Geotextile Fabric, the Contractor shall perform a Process Surveys following installation of the Woven Geotextile Fabric. The Woven Geotextile Fabric Process Surveys shall be conducted along the same alignments as required by the Woven Geotextile Fabric Pre-Construction Survey (TS-200.7.14). The Woven Geotextile Fabric Process Surveys shall be initiated immediately following Woven Geotextile Fabric installation. A minimum of (1) Process Survey shall be required, which shall serve as the Final Process Survey in instances where Earthen Containment Dike Construction occurs prior to the second Process Survey event. **Note that as shown on the Plans, MCA2 and MCA3 require full perimeter placement of Woven Geotextile Fabric; MCA1 does not require any Woven Geotextile Fabric.**

200.8.10 Non-Woven Geotextile Fabric:

For each MCA requiring Earthen Containment Dike Armoring, the Contractor shall perform a Non-Woven Geotextile Process Survey immediately following installation of the Non-Woven Geotextile Fabric in that location. The Non-Woven Geotextile Fabric Process Survey shall be conducted in accordance with the Non-Woven Geotextile Fabric Pre-Construction Survey (TS-200.7.15). This Process Survey may be utilized to fulfill the As-Built Survey requirement for Non-Woven Geotextile Fabric, provided the Contractor maintains any Non-Woven Geotextile Fabric that does not have Articulated Concrete Mats installed immediately. A minimum of one (1) Process Survey shall be required, which shall serve as the Final Process Survey.

As shown on the Plans, all three (3) MCAs (MCA1, MCA2, and MCA3) may require Earthen Containment Dike Armoring to be placed along select reaches of containment dike, which are subject to the status of award of Alternate No. 1 and Alternate No. 2.

200.8.11 Articulated Concrete Mats:

For each MCA requiring Earthen Containment Dike Armoring, the Contractor shall perform an Articulated Concrete Mats Process Survey immediately following installation of the Articulated Concrete Mats in that location. After installation of Articulated Concrete Mats, the Contractor shall survey interior and exterior placement limits. Similar to TS-200.7.16, the Contractor shall denote the limits of placement for the Articulated Concrete Mats in the Process Survey submittals. This Process Survey may be utilized to fulfill the As-Built Survey requirement for Articulated Concrete Mats. Should any locations of Earthen Containment Dike Armoring experience movement or settlement, additional Process Surveys may be required. A minimum of one (1) Process Survey shall be required, which may serve as the Final Process Survey.

As shown on the Plans, all three (3) MCAs (MCA1, MCA2, and MCA3) may require Earthen Containment Dike Armoring to be placed along select reaches of containment dike, which are subject to the status of award of Alternate No. 1 and Alternate No. 2.

200.9 As-Built Survey:

The As-Built Survey shall be used to verify final payments and Acceptance for all Work. Accepted Process Surveys may be included as part of the As-Built Survey. The As-Built Survey shall show all constructed Bid items in plan and profile using elevations, coordinates, lines and grades consistent with the Process Surveys. The As-Built Survey shall be coincident with the Pre-Construction and Process Surveys, any modifications to these surveys, and shall include the following items:

200.9.1 Quantities:

The As-Built Surveys shall show the constructed quantities for each constructed bid item.

200.9.2 Equipment Access Corridors and Dredge Pipe Corridors:

The Equipment Access Corridors and Dredge Pipe Corridors shall be resurveyed, consistent with the Pre-Construction Survey, upon demobilization of the dredge and other plant, and after the dredge pipeline has been removed.

200.9.3 Borrow Areas:

In order to show the As-Built conditions of the Borrow Areas, the final As-Built Borrow Areas shall be surveyed following Acceptance of all Marsh Creation Areas, and such surveys shall be consistent with the Preconstruction Survey.

200.9.4 Marsh Creation Areas:

In order to show the As-Built conditions of the Marsh Creation Areas, the final As-Built Marsh Creation Areas shall be surveyed following Acceptance of all Marsh Creation Areas, and such surveys shall be consistent with the Pre-Construction Survey. Those portions of the Marsh Creation Areas which have

been reworked due to exceedance of the specified dredge fill elevation tolerances, upper or lower, shall be resurveyed consistent with the Pre-Construction Survey for Acceptance, with the locations of the reworked areas notated in the As-Built Survey Submittals.

200.9.4.1 Dewatering Structures:

Upon removal of all Dewatering Structures, the Contractor shall perform an As-Built Survey that will depict field conditions of the Dewatering Structures locations following removal. This survey shall be conducted in accordance with the Dewatering Structures Pre-Construction Survey (TS-200.7.9.1).

200.9.4.2 Earthen Plugs:

The earthen plugs shall be degraded upon acceptance of the Marsh Creation Areas, as determined by the final process or as-built survey of the Marsh Creation Areas. The degradation of the earthen plugs shall be preceded by a final process survey of the earthen plugs and earthen plug borrow areas that shall be submitted to the Engineer requesting authorization for degradation. Following degradation of the earthen plugs, an earthen plug as-built survey shall be performed consistent with the pre-construction survey to show the return to pre-project conditions.

200.9.4.3 Nearby Channels and Adjacent Areas:

Upon completion of all dewatering operations, the Contractor shall perform a final As-Built Survey of all areas located within the limits denoted as nearby channels and adjacent properties in the Pre-Construction Survey.

200.9.5 Grade Stakes:

All grade stakes shall be removed after Acceptance of the Marsh Creation Areas.

200.9.6 Settlement Plates and Instrumented Settlement Plates:

Immediately following acceptance of the respective Marsh Creation Area, the Contractor shall perform the As-Built Survey of all Settlement Plates and Instrumented Settlement Plates located within that Marsh Creation Area and/or Earthen Containment Dike. The identification number, existing preconstruction mudline/ground elevation (corresponding to the base plate/mudline interface), top of dredge slurry elevation or constructed dike elevation (as applicable), and horizontal and vertical coordinates (x/y/z) of the top of pipe shall be recorded.

200.9.7 Earthen Containment Dikes:

In order to show the As-Built conditions of the Earthen Containment Dikes, the final As-Built Earthen Containment Dikes shall be surveyed following Acceptance of all Marsh Creation Areas, and such surveys shall be consistent with the Pre-Construction Survey.

200.9.7.1 Earthen Containment Dike Degrading/Gapping Survey:

Upon completion of Earthen Containment Dike degradation as specified in TS-300.7, the Contractor shall survey the centerline profile of the Earthen Containment Dike Degradation/Gap with three (3) perpendicular cross-sections equally spaced along the centerline profile within the degraded section extending thirty (30) feet from the centerline on both sides with horizontal and vertical positions recorded every five (5) feet and at changes in topography greater than one-half (0.5) foot. The centerline profile shall extend at least twenty-five (25) feet past the degraded section of the Earthen Containment Dike on each side with horizontal and vertical positions recorded every five (5) feet and at changes in topography greater than one-half (0.5) foot.

200.9.8 Access and Flotation Channels:

The Contractor shall resurvey the Access and Flotation Channels in accordance with TS-200.7.13 upon completion of backfilling the channels and removing temporary warning signs.

200.9.9 Woven Geotextile Fabric:

The Contractor shall utilize the Final Woven Geotextile Fabric Process Survey (TS-200.8.9) as the Woven Geotextile Fabric As-Built Survey.

200.9.10 Non-Woven Geotextile Fabric:

The Contractor shall utilize the Final Non-Woven Geotextile Fabric Process Survey (TS-200.8.10) as the Non-Woven Geotextile Fabric As-Built Survey.

200.9.11 Articulated Concrete Mats:

The Contractor may utilize the Final Articulated Concrete Mats Process Survey (TS-200.8.11) as the Articulated Concrete Mats As-Built Survey.

200.10 Deliverables:

The Contractor shall submit three (3) digital and three (3) hard copies of the survey data and drawings to the Engineer for review and Acceptance by the dates specified in SP-3. The Owner may stop the associated 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.

200.10.1 Survey Data:

Survey Data shall be provided in Microsoft Excel, or approved equal, on a USB flash drive and a web-based file transfer site. Survey Data shall be presented as follows:

200.10.1.1 Bathymetric and topographic Survey Data shall be provided in .csv format and include separate columns for the transect/alignment number, point number, point description, northing coordinate, easting coordinate and elevation. Bathymetric survey data shall include bar check results, survey scroll or BIN file, and corrections for tidal fluctuations and vessel pitch, roll, heave, and yaw.

200.10.1.2 Magnetometer detections shall be provided in .csv format and include the transect/alignment number, shot 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.

200.10.1.3 The elevation Data for the Settlement Plates shall be provided in .csv format and line graphs which show marsh fill and top of riser pipe elevations verses time.

200.10.1.4 Digital copy of field notes for each survey submittal in PDF.

200.10.1.5 All Survey Data Submittals shall be in accordance with the CPRA Louisiana Sand Resources Database (LASARD) Standard Operating Procedures, which are available in **APPENDIX O**.

200.10.2 Survey Drawings:

Surveys shall be provided in the latest version of AutoCAD and Adobe Acrobat on a USB flash drive or a web-based file transfer site. Three (3) hard copies of the As-Built Surveys shall be provided to the Engineer. All Survey Drawings shall conform to CPRA drafting standards and be presented as follows:

200.10.2.1 All sheets shall include the project name, number and seal of a professional engineer or surveyor licensed in the State of Louisiana;

200.10.2.2 The location of all secondary survey monuments and temporary benchmarks shall appear in plan view with table or call out showing horizontal and vertical coordinates;

200.10.2.3 Survey transects, spot elevations and +/-1.0 foot contours shall be shown in plan view. Transects shall also be shown in profile and include mean high and mean low water levels;

200.10.2.4 Magnetic anomalies and infrastructure (Pipelines, power lines, etc.) shall be shown in plan view. Infrastructure and magnetic anomalies higher than fifty (50) gammas shall also be shown in profile;

200.10.2.5 All plan views shall be overlaid onto 2016, or newer, geo-rectified Digital Orthophoto Quarter Quadrangle aerial color photographs;

200.10.2.6 Revisions such as field or change orders shall be noted, shown in red and be easily distinguishable from the original design.

200.11 Acceptance:

The Contractor shall submit a request for Acceptance after completion of the Pre-Construction, Process, and As-Built Surveys, and after submittal of the Deliverables for each survey to the Engineer and Owner. The Engineer shall determine Acceptance of this Work based on these surveys and conformance to the Plans and Specifications. The Engineer shall be afforded fourteen (14) working days from the date of receipt to review and determine Acceptance of each survey.

200.11.1 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.

200.11.2 Process Surveys:

Payment for bid items shall not be made until Acceptance of the associated Process Surveys, and in many cases the As-Built 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.

200.11.3 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 Surveys have gained Acceptance from the Engineer.

200.12 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. 2, "SURVEYS (TS-200)", Alternate No. 1 Bid Item No. 12, "SURVEYS (TS-200)" (if accepted), and Alternate No. 2 Bid Item No. 16, "SURVEYS (TS-200)" (if accepted). Payment shall constitute full compensation for furnishing the Material, labor, Equipment and other incidentals related to this item of the Work.

200.13 Ratio of Effort/Payment:

Fifty percent (50%) of the Contract cost for this bid item will be paid to the Contractor upon Acceptance of the Pre-Construction Survey. Thirty percent (30%) will be paid to the Contractor upon Acceptance of all Process Surveys. The remaining twenty percent (20%) will be paid to the Contractor upon Acceptance of the complete As-Built Survey.

TS-220 GRADE STAKES

220.1 Scope:

Grade stakes shall be installed within the Marsh Creation Areas in order to monitor the elevation of fill during placement. The Contractor shall furnish all of the Materials, labor, and Equipment necessary to construct, install, survey, maintain, and inspect the grade stakes in accordance with the Plans and these Specifications.

220.2 Materials:

Each gauge sign shall be fixed to and supported by one (1) four (4) × four (4) inch untreated pine stake of 16 foot 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 four (4) × sixty (60) × twelve-hundredths (0.12) inch rigid substrate with engineer-grade reflective sheeting, using a pressure sensitive urethane adhesive. The sheeting shall be reflective, white in color and made from Avery Dennison T1500, or approved equal. The substrate shall be colorcoded red and green, and shall be dielectric, non-conductive, acrylic, UV stabilized and possess a tensile strength which exceeds five-thousandths (0.005) of an inch aluminum. Colorcoding shall be utilized, with red signifying elevations out of tolerance and green signifying elevations within tolerance, as shown in the Plans.

The tolerance range for each target fill elevation shall be represented on the gauge sign using green transparent ink. The background color for the remaining portions of the gauge sign shall be red transparent ink. Border lines shall be applied at each target lift and tolerance elevation using 1/8" thick black ink. Ink shall be Avery 7TS, or approved equal.

220.3 Installation:

Grade Stakes shall be installed prior to placement of the dredge fill material in the Marsh Creation Areas in a vertical position embedded at least six (6) feet below existing grade within the Marsh Creation Areas. The Contractor shall propose grade stake locations in the Work Plan, and the Contractor shall install grade stakes in the designated locations or as otherwise directed by the Engineer or Resident Project Representative. All proposed Grade Stake locations shall be installed along the construction survey transects of the respective Marsh Creation Area(s). However, no more than one (1) grade stake shall be installed per transect within all Marsh Creation Areas as shown on the Plans. Upon installation, each Grade Stake shall be surveyed at completion of the install to verify conformance with horizontal/vertical accuracy tolerances.

220.4 Maintenance:

The Grade Stakes shall be surveyed daily, per TS-200.8.5, and maintained by the Contractor until Acceptance of the Marsh Creation Areas. These inspections shall include the surveyed top elevation, recorded distance from the top of the stake to the dredge slurry (tape down distance), the stake identification number, and position coordinates for each Grade Stake. Grade Stakes shall be repaired or replaced if badly damaged or their plumb angle varies by more than 15 degrees from vertical. Upon replacement, the Contractor shall re-survey the newly installed Grade Stake.

220.5 Daily Inspections:

Grade Stakes shall be inspected daily, per TS-200.8.5. 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 after Acceptance of all Marsh Creation Areas. The Grade Stakes shall either be removed in their entirety or cut off at marsh grade. Impacts to the Marsh Creation Areas shall be minimized during removal of the Grade Stakes.

220.7 Acceptance:

After installation, the installed Grade Stake survey shall be submitted to the Engineer, as per TS-200.7.10. Grade Stakes not Accepted shall be replaced, resurveyed and submitted again to the Engineer for Acceptance, with Acceptance being granted prior to placement of dredge fill material into the respective Marsh Creation Area.

220.8 Measurement and Payment:

Payment shall be made for the Contract unit price per each for Bid Item No. 3, "GRADE STAKES (TS-220)". Payment shall constitute full compensation for furnishing the 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 and replaced due to fault or negligence by the Contractor.

TS-250 SETTLEMENT PLATES

250.1 Scope:

The Contractor shall furnish all of the Materials, labor, and Equipment necessary to construct, install, survey, and maintain the Settlement Plates within their respective locations as shown on the Plans and as stated within these Specifications.

250.2 Materials:

The base plate for each Settlement Plate shall be fabricated with a (4) foot × four (4) foot × 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.

The riser pipe for each Settlement Plate shall be two and one-half (2-1/2) inch nominal diameter Schedule 40 steel pipe. The lengths of riser pipe vary, as described below. The riser shall be inserted through the center hole and positioned such that the bottom end of the riser pipe measures a distance of one (1) foot through the hole in the center of the base plate, and then welded on both sides of the plate using a three-sixteenths (3/16) inch continuous fillet. The top of the riser shall be fitted with a threaded steel cap. Threaded caps shall be tack-welded to the attached riser in at least two (2) locations equally spaced around the pipe perimeter. After fabrication, the Settlement Plates shall be hot-dip galvanized.

Unless otherwise directed by the Engineer, the following riser pipe lengths shall apply:

For Settlement Plates proposed for installation within dikes (SP-4, SP-7, SP-8, SP-9, and SP-11), the riser pipe shall measure twelve (12) feet in length, as shown on the Plans.

For Settlement Plates proposed for installation within marsh creation areas (SP-1, SP-2, SP-3, SP-5, SP-6, and SP-10), the riser pipe shall measure nine (9) feet in length, as shown on the Plans.

250.3 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 regalvanized with a suitable low-melting zinc base alloy as recommended by the American Hot-Dip Galvanizers Association. One coat of a 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.

250.4 Installation:

Settlement Plates shall be installed inside the marsh creation fill areas and on the earthen containment dikes as shown on the Plans prior to placing fill or dike material into the designated areas. Leveling of the plate bed shall be accomplished by removing the minimum amount of earth necessary to produce a level foundation. Leveling of the plate bed by the addition of any material will not be permitted.

250.5 Maintenance:

The Contractor shall maintain all Settlement Plates until the Work is completed. Damaged Settlement Plates shall be immediately repaired or replaced and resurveyed by the Contractor at no expense to the Owner.

250.6 Settlement Plate Surveys:

Following the Settlement Plate install survey, the Contractor shall perform Settlement Plate Progress Surveys, as per TS-200.8.6, which shall continue throughout the duration of the Work, and/or until notice is given by the Engineer to commence the As-Built Survey, at which point the Contractor shall be required to perform a final survey of all Settlement Plates as part of the requirements for that survey. Settlement Plates shall be repaired or replaced if badly damaged or their plumb angle varies by more than 15 degrees from vertical. Failure to adhere to the Settlement Plate Surveys requirements will result in the

Engineer rejecting Acceptance of the Settlement Plates. Settlement Plates not Accepted shall be replaced, resurveyed and submitted again to the Engineer for Acceptance, with Acceptance being required prior to the advancement of Earthen Containment Dike construction progress over the prospective Settlement Plate location.

250.7 Acceptance:

The Contractor shall request Acceptance after installation of the Settlement Plates and initiation of Settlement Plate Surveys discussed in TS-250.6. The Engineer shall determine Acceptance based on a review of the Pre-Construction Survey and the Settlement Plate Surveys discussed in TS-200. This Acceptance does not remove the Contractor of their responsibility to maintain the Settlement Plates as stated in TS-250.5 or to perform all required Settlement Plate Surveys as stated in TS-250.6.

250.8 Ratio of Effort:

Ninety percent (90%) of the Contract cost for this bid item will be paid to the Contractor upon Acceptance of the Settlement Plates. The remaining ten percent (10%) will be paid to the Contractor upon Acceptance of the Earthen Containment Dikes and completion of the Work.

250.9 Measurement and Payment:

The Contractor shall submit Applications for Payment after gaining Acceptance. Payment shall be made for the Contract unit price per each for Bid Item No. 4, "SETTLEMENT PLATES (TS-250)". Payment shall constitute full compensation for furnishing the Material, labor, Equipment and other incidentals related to this item of the Work. No payment shall be made for Settlement Plates that are rejected or damaged due to fault or negligence by 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) within their respective locations as shown on the Plans and as stated within 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 ISP 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 ISP 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 through the center hole and positioned such that the bottom end of the riser pipe measures a distance of two (2) feet through the hole in the center of the base plate, and then welded on both sides of the plate using a three-sixteenths (3/16) inch continuous fillet.

251.2.4 Instrument Housing:

Six (6) twelve (12) by twelve (12) by three-sixteenths (3/16) inch 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 number of the ISP painted on all sides using galvanized compound paint that is orange in color. The paint may be applied using stencil 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 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 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-half (1-1/2) 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:

ISPs shall be installed as shown on the Plans. Leveling of the plate bed shall be accomplished by removing the minimum amount of earth necessary to produce a level foundation. Leveling of the plate bed by the addition of any material will not be permitted. The ISPs shall be installed a minimum of two (2) weeks prior to placement of dredged material in order for the Engineer to install the instrumentation. The stand pipe shall be driven to a depth determined by the Engineer in the field.

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 throughout the duration of the Contract Time.

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 Instrumented Settlement Plate Surveys:

Following the ISP install survey, the Contractor shall perform weekly ISP Progress Surveys, as per TS-200.8.6, which shall continue at a minimum frequency of once per seven (7) days throughout the duration of the Work, and/or until notice is given by the Engineer to commence the As-Built Survey, at which point the Contractor shall be required to perform a final survey of all ISPs as part of the requirements for that survey. ISPs shall be repaired or replaced if badly damaged or their plumb angle varies by more than 15 degrees from vertical. Failure to adhere to the ISP Surveys requirements will result in the Engineer rejecting Acceptance of the ISPs. ISPs not Accepted shall be replaced, resurveyed and submitted again to the Engineer for Acceptance, with Acceptance being required prior to the deposition of fill material over the prospective ISP location with the Marsh Creation Areas.

251.7 Acceptance:

The Contractor shall request for Acceptance after installation of the ISPs. The Engineer shall determine Acceptance based on a review of the Pre-Construction Survey and Instrumented Settlement Plate Surveys discussed in TS-200. This Acceptance does not remove the Contractor of their responsibility to maintain the ISPs as stated in TS-251.5.

251.8 Ratio of Effort:

Ninety percent (90%) of the Contract cost for this bid item will be paid to the Contractor upon Acceptance of the Instrumented Settlement Plates.

The remaining ten percent (10%) will be paid to the Contractor upon Acceptance of the Marsh Creation Areas and completion of the Work.

251.9 Measurement and Payment:

The Contractor shall submit Applications for Payment after gaining Acceptance. Payment shall be made for the Contract unit price per each for Bid Item No. 5, "INSTRUMENTED SETTLEMENT PLATES (TS-251)". Payment shall constitute full compensation for furnishing the Material, labor, Equipment and other incidentals related to this item of the Work. No payment shall be made for ISPs 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, and maintain the Earthen Containment Dikes in accordance with these Specifications and in conformity to the lines, grades, elevations and tolerances shown on the Plans, or otherwise modified by the Engineer as a result of the Pre-Construction Survey. Construction sequencing of this item shall be included in the Work Plan.

300.2 Breakdown of Earthen Containment Dike Construction by Type:

As shown throughout the Plans, there are five (5) different Earthen Containment Dike Types required for construction. A summary of each type is below, along with a table including key containment dike design dimensions by type.

300.2.1 Earthen Containment Dike Type I:

Type I ECDs correspond to sections of containment dike **not requiring** woven geotextile fabric and **not requiring** armoring. Type I ECDs are to be constructed within the unarmored portions of MCA1 only, as indicated in the Plans.

300.2.2 Earthen Containment Dike Type II:

Type II ECDs correspond to sections of containment dike **not requiring** woven geotextile fabric and **requiring** armoring. Type II ECDs are to be constructed within the armored portions of MCA1 only, as indicated in the Plans.

300.2.3 Earthen Containment Dike Type III:

Type III ECDs correspond to sections of containment dike **requiring** woven geotextile fabric and **not requiring** armoring. Type III ECDs are to be constructed within the unarmored portions of MCA2 and MCA3, as indicated in the Plans. Note that in all areas of the Project Site, woven geotextile fabric shall

be placed no lower than elevation of -1.5 FT NAVD88, as depicted on SHEET 31 OF 35 in the Plans.

300.2.4 Earthen Containment Dike Type IV:

Type IV ECDs correspond to sections of containment dike **requiring** woven geotextile fabric and **requiring** armoring, with containment dike sideslope dimensions of 1V:4H. Type IV ECDs are to be constructed within the armored portions of MCA2, including the northern extension of the armored ECD reach located along Sawmill Pass near The Rigolets, as indicated in the Plans. Note that in all areas of the Project Site, woven geotextile fabric shall be placed no lower than elevation of -1.5 FT NAVD88, as depicted on SHEET 31 OF 35 in the Plans.

300.2.5 Earthen Containment Dike Type V:

Type V ECDs correspond to sections of containment dike **requiring** woven geotextile fabric and **requiring** armoring, with containment dike sideslope dimensions of 1V:5H. Type V ECDs are to be constructed within the armored portions of MCA3 only, as indicated in the Plans. Note that in all areas of the Project Site, woven geotextile fabric shall be placed no lower than elevation of -1.5 FT NAVD88, as depicted on SHEET 31 OF 35 in the Plans.

ECD Type (Respective MCA)	Target Dike Crest Elevation	Construction Tolerance	Sideslopes	WGF Req?	Armoring Req?
Type I (MCA1)	+3.0 FT NAVD88	(+0.5')	1V:4H	N	N
Type II (MCA1)	+3.0 FT NAVD88	(+0.5')	1V:4H	N	Y
Type III (MCA2)	+2.5 FT NAVD88	(+0.5')	1V:4H	Y	N
Type III (MCA3)	+3.0 FT NAVD88	(+0.5')	1V:4H	Y	N
Type III (MCA3)	+3.0 FT NAVD88	(+0.5')	1V:5H	Y	N
Type IV (MCA2)*	+2.5 FT NAVD88	(+0.5')	1V:4H	Y	Y
Type V (MCA3)**	+3.0 FT NAVD88	(+0.5')	1V:5H	Y	Y

*Will revert to Earthen Containment Dike Type III (MCA2), if Additive Alternate No. 1 is not awarded

**Will revert to Earthen Containment Dike Type III (MCA3) with 1V:5H, if Additive Alternate No. 2 is not awarded

300.3 Earthen Containment Dike Construction Based on Award of Alternates:

300.3.1 Base Bid Only:

For the Award of Base Bid only, the Contractor agrees to construct the following:

- Type I and Type II ECDs at MCA1, as depicted on the Plans.
- Type III ECDs at MCA2, as depicted on the Plans.
- Type III ECDs at MCA3, as depicted on the Plans.

300.3.2 Alternate No. 1:

For the Award of Base Bid plus Alternate No. 1, the Contractor agrees to construct the following:

- Type I and Type II ECDs at MCA1, as depicted on the Plans.
- Type III and Type IV ECDs at MCA2, as depicted on the Plans.
- Type III ECDs at MCA3, as depicted on the Plans.

300.3.3 Alternate No. 2:

For the Award of Base Bid plus Alternate No. 1 plus Alternate No. 2, the Contractor agrees to construct the following:

- Type I and Type II ECDs at MCA1, as depicted on the Plans.
- Type III and Type IV ECDs at MCA2, as depicted on the Plans.
- Type III and Type V ECDs at MCA3, as depicted on the Plans.

For the Award of Base Bid plus Alternate No. 2, the Contractor agrees to construct the following:

- Type I and Type II ECDs at MCA1, as depicted on the Plans.
- Type III ECDs at MCA2, as depicted on the Plans.
- Type III and Type V ECDs at MCA3, as depicted on the Plans.

300.4 Equipment:

All Earthen Containment Dikes shall be constructed and maintained using mechanical excavation Equipment. The Equipment Data Sheet in **APPENDIX L** shall be included in the Work Plan for all mechanical excavation Equipment proposed to perform the Work. The mechanical excavation Equipment shall be in satisfactory operating condition, capable of efficiently performing the Work, and shall be subject to inspection by the Owner or Engineer throughout the performance of the Work.

300.5 Construction:

The Earthen Containment Dikes shall be constructed around the full perimeter of the Marsh Creation Areas, to the design dimensions and to within the allowable construction tolerances as shown on the Plans. The Earthen Containment Dikes shall be constructed using in-situ borrow material that shall be excavated from the Earthen Containment Dike Borrow Areas that are located adjacent to the Earthen Containment Dikes in each Marsh Creation Area, or as allowed with spoil material from mechanical dredging of the Access and Flotation Channels. Construction of the Earthen Containment Dikes may require double handling of material.

300.5.1 Multiple Lift Construction:

The Earthen Containment Dikes may be constructed in multiple lifts, to the geometries and within the tolerances shown on the Plans.

If multiple lift construction is utilized, the Contractor shall delay the construction of each subsequent lift by a minimum of fifteen (15) calendar days after completion of the previous lift, unless otherwise directed by the Engineer.

The Contractor may construct each lift of the Earthen Containment Dikes in individual segments. The lengths and locations of the segments shall be provided in the Work Plan. Each lift of the Earthen Containment Dike shall achieve compliance with the following requirements. The Contractor may propose alternate Multiple Lift Construction methodology, which shall be submitted in writing and subject to approval by the Engineer.

300.5.2 Earthen Containment Dikes Requiring Earthen Containment Dike Armoring:

Prior to the installation of Earthen Containment Dike Armoring, the Contractor must verify that all portions of the dike meet the required template as shown in the Plans. In order to do this, the Contractor shall submit the Earthen Containment Dike Process Survey to the Engineer for review. No more than fifteen (15) days may elapse between a Process Survey showing the dike constructed to the required template and installation of Earthen Containment Dike Armoring on the dike.

300.5.3 Process Survey Submittal and Approval:

Process Surveys of each segment of constructed Earthen Containment Dike shall be performed and shall be subject to approval by the Engineer.

300.5.4 Failure to Comply With Design Dimensions:

Those segments of the Earthen Containment Dikes that do not comply with the specified geometries and tolerances shall be reworked and resurveyed for compliance.

300.6 Borrow Material:

The soil properties of the Earthen Containment Dike Borrow Areas may vary across the Project Site. The geotechnical investigation report is provided in **APPENDIX I**. All unsuitable organic debris (logs, stumps, snags, etc.) greater than two (2) inches in diameter or two (2) feet in length that is encountered in the Earthen Containment Dike Borrow Areas shall remain and not be utilized to construct the Earthen Containment Dikes. All unsuitable inorganic debris (tires, scrap, etc.) greater than five (5) pounds that is encountered in the Earthen Containment Dike Borrow Areas shall be disposed off-site in an approved waste disposal facility.

300.6.1 Use of Access and Flotation Channel Spoil for Containment Dike Borrow:

As shown on the Plans, there are a total of three (3) locations with Access and Flotation Channel dredging alignments adjacent to containment dikes, where each marsh creation area faces open water. In these open water-facing portions, Access and Flotation Channels may be dredged by the Contractor, in order to facilitate movement of Equipment as necessary. If Access and Flotation Channels are to be utilized, the Contractor may place spoil material within the

containment dike construction template in applicable locations, provided that the Contractor builds the dike according to the lines, grades, and dimensions shown in the Plans, in accord with these Specifications, and follows the provisions in TS-330. The use of Access and Flotation Channel spoil for containment dike borrow shall be submitted in the Work Plan, which shall be subject to approval by the Engineer.

300.7 Internal Training Dikes:

The Contractor has the discretion to construct Internal Training Dikes necessary to aid in the containment of dredged material within the Marsh Creation Areas. The dimensions of the Internal Training Dikes may vary; however, the crown elevation shall not exceed that of the Earthen Containment Dikes of the respective Marsh Creation Area. The locations and alignments of all internal training dikes shall be proposed by the Contractor and included in the Work Plan.

300.8 Earthen Plugs:

In order to ensure that no turbidity escapes into open water, up to two (2) locations are available for the construction of earthen plugs. The Contractor may propose the use of earthen plugs as part of dewatering and fill material loss prevention, and shall do so in the Work Plan submittal. The Work Plan submittal shall include all means and methods for Earthen Plug construction, including proposed equipment and access routes. Alternatively, should the Contractor elect not to construct earthen plugs, the Owner may require earthen plugs to be constructed based on observations of turbidity occurring in nearby open water areas and the observation of fill material losses occurring. If required by the Owner, the Contractor shall be required to temporarily halt hydraulic dredging operations and shall immediately perform the Pre-Construction survey for the earthen plugs and earthen plug borrow areas in order to construct earthen plugs. The cost of all work associated with up to two (2) earthen plugs shall be included in Bid Item No. 6 "EARTHEN CONTAINMENT DIKES (TS-300)". All proposed access routes for equipment access shall be provided in the Work Plan.

300.9 Maintenance:

All Earthen Containment Dikes shall be maintained to the design dimensions by the Contractor until the respective Marsh Creation Area has gained Acceptance. As necessary, the Contractor may be allowed to place additional earthen material on top of select portions, which will be at the discretion of the Engineer. Should a breach or failure of any of the Earthen Containment Dikes occur before any of the Marsh Creation Areas gain Acceptance, the Contractor shall immediately notify the Engineer, cease Hydraulic Dredging and Marsh fill operations, and initiate repairs to the Earthen Containment Dike. All external spills of fill or dike material from the Marsh Creation Area shall be immediately returned to the Marsh Creation Area by the Contractor at no pay. Alternatively, the Owner and Engineer may reserve the right to execute a computation of an estimated quantity of total material lost to then be deducted from the estimated quantity of Bid Item No. 7 "HYDRAULIC DREDGING AND MARSH FILL (TS-400)". The Contractor shall include a detailed procedure and communication protocol for the repair and reporting of Earthen Containment Dike breaches in the Work Plan.

300.10 Earthen Containment Dike Degradation/Gapping:

Upon Acceptance of the Marsh Creation Areas, and prior to Demobilization from the Project Site, the Owner may require up to six (6) Earthen Containment Dike Degradation/Gapping locations, each of which not to exceed 500 feet. The locations of the Earthen Containment Dike Degradations/Gaps are to be identified and communicated to the Contractor, once a determination is made by the Engineer following the granting of Acceptance of all Marsh Creation Areas. Location and width of Earthen Containment Dike Degradations/Gaps shall be determined by the Engineer. Spoil from Earthen Containment Dike Degradation/Gapping shall be used to fill nearby low lying areas within the Marsh Creation Areas, unless otherwise instructed by the Engineer. Upon completion of the Earthen Containment Dike Degradation/Gapping, the Contractor shall survey the degraded/gapped areas as described in TS-200.9.7.1.

Note: The Contractor may only perform Earthen Containment Dike Grading/Gapping at non-armored portions of Earthen Containment Dike, unless otherwise directed by the Engineer.

300.11 Acceptance:

Earthen Containment Dikes shall gain Acceptance after the Process and/or As-Built Surveys show compliance with the lines, grades, elevations, and tolerances shown on the Plans and are Accepted by the Engineer. The Engineer may require the addition or removal of material that is excavated or placed beyond the specified tolerances at no additional cost to the Owner.

Partial Acceptance of Earthen Containment Dikes may be requested in one-thousand (1,000) foot (minimum) sections. Acceptance by the Engineer does not relieve the Contractor of their responsibility to maintain the Earthen Containment Dikes, Woven Geotextile Fabric, Non-Woven Geotextile Fabric, and Articulated Concrete Mats until Acceptance of the respective Marsh Creation Area. Acceptance of a complete perimeter of the Earthen Containment Dikes is required prior to requesting Acceptance of the Marsh Creation Area.

300.12 Measurement and Payment:

Payment for these Earthen Containment Dikes shall be made at the Contract unit price per linear foot for Bid Item No. 6, "EARTHEN CONTAINMENT DIKES (TS-300)". Payment shall constitute full compensation for furnishing the labor, Equipment, and other incidentals related to these items of the Work. The Contractor may request partial payment, in 1,000 foot (minimum) continuous, unbroken, and Accepted sections, on a monthly basis based on the linear footage of Accepted Earthen Containment Dike constructed.

300.13 Ratio of Effort/Payment:

Seventy percent (70%) of the Contract cost for this Bid item will be paid to the Contractor after Acceptance of the Earthen Containment Dikes. The remaining thirty percent (30%) will be paid to the Contractor after Acceptance of all Marsh Creation Areas and the As-Built Survey of the degraded sections of ECDs specified in TS-200.9.7.1.

TS-330 ACCESS AND FLOTATION CHANNELS

330.1 Scope:

The Contractor shall furnish all of the Materials, labor and Equipment necessary to construct the Access and Flotation Channels, as shown in accordance with the Plans and these Specifications. The excavation, temporary spoil, and temporary warning signs of the Access and Flotation Channels shall be in accordance with these Specifications and in conformity to the lines, grades, elevations and tolerances shown on the Plans.

Depending on the draft requirements of the Contractor's Equipment, the use of Access and Flotation Channels may not be required, or may not need to be dredged to the full template shown on the Plans. As such, the use of Access and Flotation Channels shall be elective based on the Equipment needs of the Contractor.

330.2 Equipment Access:

All proposed Equipment Access routes shall be provided in the Work Plan. Equipment access shall be limited to open water unless otherwise shown on the Plans or stated in these Specifications, or unless otherwise approved by the Engineer.

330.3 Excavation:

If the section of Access and Flotation Channel excavation is necessary based on the Contractor's Equipment, it shall be mechanically excavated using a bucket dredge, barge-mounted track hoe, or approved equal. The Contractor shall use any environmentally acceptable method that will complete the Work in accordance with the Plans and these Specifications. The proposed dredging method shall be provided in the Work Plan, which will be subject to approval by the Engineer.

The Contractor is not required to dredge the channel to the maximum channel dimensions as shown in the Plans. Access and Flotation Channels shall not be excavated beyond the limits and coordinates shown on the Plans or as otherwise approved by the Engineer. The minimum bottom elevation of the channels shall be -8.0 FT NAVD88 (i.e., the invert of the channel shall not be lower than -8.0 FT NAVD88). The Contractor shall pay for all damages and repairs associated with dredging beyond the dimensions shown on the Plans. The Equipment Data Sheet in **APPENDIX L** shall be included in the Work Plan for all mechanical dredging Equipment proposed to perform the Work.

The mechanical dredge Equipment shall be in satisfactory operating condition and capable of efficiently performing the Work.

330.4 Temporary Spoil Placement:

Material dredged from the Access and Flotation Channels shall be placed in the Temporary Spoil areas shown on the Plans. Prior to demobilization, the Temporary Spoil Placement areas shall be reworked to the original grade by backfilling into the adjacent excavated access channel. With the exception of spoil material used for earthen containment dikes, any material that is deposited elsewhere than indicated on the Plans for Temporary Spoil Placement, shall be removed and deposited in the approved areas at the Contractor's expense. Additionally, the Contractor shall be responsible for restoring unauthorized

disposal areas to pre-construction conditions at no expense to the Owner.

330.5 Use of Access and Flotation Channel Spoil Material for Earthen Containment Dikes:

The Contractor shall follow the provisions stated in TS-300.6.1. The Contractor shall depict in the Work Plan all reaches of Earthen Containment Dike to be constructed with Spoil Material from the Access and Flotation Channels.

330.6 Temporary Warning Signs:

The Contractor shall follow the provisions stated in TS-150.2. The Contractor shall depict in the Work Plan all locations of Temporary Warning Signs.

330.7 Tolerance:

After being backfilled, the vertical elevation Tolerance for the finished grade of the Access and Flotation Channels and Temporary Spoil Placement areas shall be format or below the pre-construction conditions.

330.8 Maintenance:

The Access and Flotation Channels shall be maintained in accordance with TS-330.3 in order to facilitate Equipment access from the open water portions of the Project Site to the ACM install areas. Any necessary maintenance dredging shall be performed at no additional expense to the Owner.

330.9 Acceptance:

The Contractor shall request for initial acceptance after the Access and Flotation Channels have been dredged. The Contractor shall request for final Acceptance after the Access and Flotation Channel has been backfilled. The channel shall gain Acceptance if the Process Surveys show compliance with the lines, grades, elevations, and tolerances shown on the Plans and in these Specifications. The Engineer may require the addition or removal of material dredged or placed beyond the specified tolerances. Accepted Pre-Construction, Process, and As-Built surveys shall be used for verification.

330.10 Measurement and Payment:

The Contractor shall submit Applications for Payment after gaining initial and final acceptance. Payment shall be made at the Contract Lump Sum price for Bid Item No. 7, "ACCESS AND FLOTATION CHANNELS – ACM INSTALL (TS-330)", Alternate No. 1 Bid Item No. 13 "ACCESS AND FLOTATION CHANNELS – ACM INSTALL (TS-330)" (if accepted), and Alternate No. 2 Bid item No. 17 "ACCESS AND FLOTATION CHANNELS – ACM INSTALL (TS-330)" (if accepted). Payment shall constitute full compensation for furnishing the labor, Equipment, and other incidentals related to this item of Work.

330.11 Ratio of Effort:

Seventy percent (70%) of the Contract cost for this bid item will be paid to the Contractor upon initial Acceptance. The remaining thirty percent (30%) will be paid to the Contractor upon final Acceptance.

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 Borrow Areas and place the Material into the Marsh Creation Areas in accordance with these Specifications and in conformity to the lines, grades, elevations and tolerances shown on the Plans. The borrow Material shall be dredged, pumped, and placed in such a manner to ensure that negative impacts are avoided or minimized to the maximum extent practicable. This section shall include the operation and maintenance of the hydraulic dredge(s) and booster pump(s), if required.

400.2 Equipment:

All Equipment shall be in satisfactory operating condition, capable of efficiently performing the Work and shall be subject to inspection by the Engineer or Resident Project Representative at all times. The Contractor shall provide an Equipment protection plan in the Work Plan addressing procedures for stage fluctuations and adverse weather conditions.

400.2.1 Hydraulic Dredge Data Sheet:

The Hydraulic Dredge Data Sheet in **APPENDIX K** shall be included in the Work Plan. Submittal of the Hydraulic Dredge Data Sheet shall constitute a certificate that the described Equipment is available to, and under control of, the Contractor. The data is pertinent to the evaluation of the proposed dredge and its capability to perform the Work. The Contractor may omit data or information that is considered to be proprietary.

400.2.2 Booster Pump(s):

The Equipment Data Sheet in **APPENDIX L** shall be included in the Work Plan for any and all Booster Pump(s) that is(are) proposed to perform the Work. The Contractor may omit data or information that is considered to be proprietary.

400.3 Equipment Access Routes & Dredge Pipeline Corridors:

All proposed routes for Equipment access and hydraulic dredge pipelines shall be provided in the Work Plan. The Contractor may use the Equipment Access Corridors, shown on the Plans, to perform the Work. The Contractor shall be responsible for acquiring the appropriate permits and access agreements for all proposed routes outside of the permitted area. The Contractor shall provide a copy of the permit and/or access agreement to the Owner prior to mobilization. Impacts to wetlands or water bottoms outside of the permitted Project Area shall be returned to pre-project conditions, prior to demobilization, at no additional cost to the Owner. Channel dredging shall not be permitted.

400.4 Hydraulic Dredging:

The Contractor shall dredge the Borrow Areas and transfer the dredged material to the Marsh Creation Areas.

400.4.1 Borrow Material:

The material to be dredged from BA1 has been classified as clayey sand, silty sand, sandy silt, and very soft clay. The material to be dredged from BA2 has been classified as primarily very soft clay to soft to medium clay. Some Pleistocene age deposits were identified within BA2, but not BA1. Soil boring logs for the Borrow Area are provided in **APPENDIX I**.

Additional materials such as shells, logs, stumps, snags, tires, scrap and other debris which are encountered shall be removed and properly disposed of by the Contractor. No additional payment for dispersed or removed material shall be made.

400.4.2 Dredging Limits:

Dredging shall occur within the limits of the Borrow Areas as shown on the Plans. The Contractor shall immediately notify the Engineer if an infraction of the Borrow Area limits of pay does occur. No payment shall be made for any material dredged beyond the Borrow Area limits of pay. The Contractor shall also pay all permit fines and other expenses related to dredging beyond the Borrow Area limits of pay at no additional cost to the Owner. The Contractor shall acknowledge the existence of a known pipeline located to the south of BA2 in Lake St. Catherine and shall heed the warning of the potential hazard, as shown in the Plans. **No dredging, anchoring, spudding, or deep-drafting vessel passage is allowed within 500' of the verified probing locations of the pipeline, as shown on the Plans.**

400.4.3 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 cutterhead shall be recorded in Louisiana South State Plane Coordinate System, NAD 1983 with an accuracy of six (6) feet. The Engineer and/or Resident Project Representative shall be allowed to board the dredge and observe dredging operations, including access to the bridge. The Contractor is required to calibrate the DGPS equipment as per manufacturer's Specifications. The Contractor is also required to have a dredging depth indicator capable of gauging the depth being dredged at all times for each piece and type of dredging plant being utilized. The instrument shall be of electronic recorder type. The indicators shall be in plain view of Operators and Resident Project Representative and be adjusted to the reference datum, NAVD88 Geoid 12A-Epoch 2010.00. The Contractor shall use surveying Equipment and methodology specified in TS-200 to achieve this vertical datum. The position data and calibration records shall be included in the Daily Progress Reports.

The proposed type of positioning equipment and proposed tide corrections methods and measurements shall be included in the Work Plan.

400.5 Marsh Creation:

The Contractor shall place the material dredged from the Borrow Areas into the respective Marsh Creation Areas as shown in the Plans.

400.5.1 Placement of Dredged Material:

As stated in TS-300.8, acceptance of a complete perimeter of the Earthen Containment Dikes comprising the containment boundary of the respective Marsh Creation Area shall be required in order to allow the commencement of Hydraulic Dredging and Marsh Fill Operations within said Marsh Creation Area.

Following Acceptance, dredged Material shall be placed into the Marsh Creation Areas to the construction marsh fill elevations as shown on the Plans, and as listed below.

MCA1: Target Pump Elevation = +2.0 FT NAVD88 (+/-0.25' tolerance)

MCA2: Target Pump Elevation = +1.5 FT NAVD88 (+0.5' tolerance)

MCA3: Target Pump Elevation = +2.0 FT NAVD88 (+/-0.25' tolerance)

The dredge flow rate and slurry density shall be regulated to insure that the construction marsh creation fill elevations comply with the specified tolerances, the integrity of the dikes are maintained, and no slurry material is discharged from the Marsh Creation Areas. The Contractor shall be responsible for the restoration of any damages to adjacent wetlands or water bodies resulting from marsh creation activities.

400.5.2 Right to Vary:

The Owner reserves the right to vary the fill elevation of the Marsh Creation Areas from the lines and grades shown on the Plans or observed at the Project Site in order to establish a uniform Marsh Creation Area. The Marsh Creation Area cross-sections shown on the Plans are for the purpose of estimating the amount of dredged Material needed and will be used by the Engineer in making any change in the lines and grades. Quantities are estimates based on surveys conducted July 2016 through September 2016 and September 2018 through October 2018. 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 as may be necessary to complete the Work and remain within funding limits. In the event of Material overruns/underruns by less than twenty-five percent (25%), the Contract unit costs will be used to determine payment to the Contractor.

If the actual quantity of the unit-priced item varies more than twenty-five percent (25%) above or below the estimated quantity, a reasonable and equitable adjustment in the Contract unit costs will be negotiated upon request of either party.

400.5.3 Dewatering and Fill Material Loss Prevention:

400.5.3.1 General:

The Contractor shall dewater the Marsh Creation Areas in order to achieve the construction marsh creation elevation within the specified tolerances. As shown on the Plans, the Marsh Creation Areas can be dewatered into the adjacent marsh to the east of MCA1, to the north and to the south of MCA2, and the to the north of MCA3. Any modifications to these suggested dewatering locations shall be included as part of the Work Plan and subject to approval by the Engineer.

400.5.3.2 Turbidity Control:

The Contractor shall discharge water from the Marsh Creation Areas into surrounding wetland areas to avoid impoundment of water and allow for consolidation of the dredged material. The Contractor shall provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint, including, if applicable, a description of the type and quantity of any water control structure(s) proposed, and the method and timing of removal of said structure(s). The plan shall contain methods to minimize turbidity and sedimentation as determined by the Engineer in open water at both the Borrow Area and vicinity of the Marsh Creation Areas. The Turbidity Control Plan shall be submitted in the Work Plan, fourteen (14) days prior to the Pre-Construction Conference. Failure to comply with the Turbidity Control Plan will be grounds for termination of the Contract.

400.5.3.3 Dewatering Structures:

The Contractor shall dewater the Marsh Creation Areas into adjacent marsh such that it minimizes the amount of material which is allowed to escape the system and flow into surrounding waterways. Dewatering Structures, such as weirs or spill boxes may be utilized to discharge the decanted water from the Marsh Creation Areas. The Contractor shall be responsible for sizing the Dewatering Structures to remove dredged water as well as rainfall so that the perimeter dikes are not overtopped. The contractor may use any number or design of water control structures for water discharge provided the structure is of sufficient size to discharge an appropriate volume of water and control the loss of dredged material. The rate of discharge must be manually controllable with the ability to completely shut off discharge through the structure. Dewatering Structures shall be removed by the Contractor upon completion of the Work at the Contractor's expense. The Contractor shall include proposed dewatering locations and methodology in the Work Plan. No plastic sheeting (such as Visqueen) will be allowed as part of a Water Control Structure.

The Contractor shall keep the immediate vicinity of the Dewatering Structures outfall free-flowing and prevent accumulation of sediment

from hindering the flow of decanted water from the Marsh Creation Areas. Decanted water shall not be discharged directly into other adjacent water bodies without written request from the Contractor and prior approval by the Engineer. The hydraulic grade and loss of fine dredged material may be further reduced by installing additional internal training dikes, weirs, hay bales or silt fences at no additional expense to the Owner.

The cost of any water control structures associated with dewatering and discharge shall be included in Bid Item No. 7 "HYDRAULIC DREDGING AND MARSH FILL (TS-400)". All proposed access routes for equipment access shall be provided in the Work Plan.

400.5.3.4 Detection of Sedimentation Within Nearby Channels and Adjacent Areas:

Multiple camps are located in the immediate vicinity of the project. Sedimentation or infilling of neighboring waterways shall be prevented at all times. At any time that survey data reveals an increase in bottom elevation of nearby channels, indicating a deposition of fill material outside of the marsh creation areas and acceptable dewatering locations, the Owner may reserve the right to issue a Work stoppage. In the event of a Work stoppage, the Contractor shall be required to revise the Work Plan such that infill rates into the areas of question are limited and daily dredge reports are submitted to the Owner with dredge infill rates shown for all times that marsh fill operations are ongoing. The Contractor shall restore to pre-project conditions any adjacent areas that experience impacts as a result of sedimentation. Surveys will be required per TS-200.8.4.2 to document restoration to pre-project conditions in any areas where sedimentation has been detected.

400.6 Acceptance:

The Contractor shall submit a request for Acceptance from the Engineer once the target Marsh Creation Area elevation has been met. Daily grade stake elevations shall be used to determine when the target elevation has been met. The Contractor shall notify the Engineer when grade stake elevations indicate target elevation have been achieved for the respective Marsh Creation Area. All of the grade stake readings must be within the tolerance in order to receive approval to initiate the topographic survey. No less than two (2) working days after the Engineer Accepts this grade stake data, a topographic survey shall be performed in accordance with TS-200.9.4. At least 80% of the survey points must be within the Acceptable elevation tolerance as shown on the Plans and as depicted on the grade stakes for the respective Marsh Creation Area to be Accepted. All Marsh Creation Area surveys shall be witnessed by the Engineer or Resident Project Representative. If the Marsh Creation Area is below the target/minimum elevation, the Engineer may require the Contractor to place additional material prior to Acceptance. The Engineer may require material be placed above the elevation tolerance to be removed or reduce the pay volume by an amount commensurate with a volumetric calculation performed using survey data. This volumetric calculation shall be determined by the Engineer at his/her discretion.

400.7 Measurement and Payment:

Payment will be made at the Contract unit price per cubic yard (Dredged from the Borrow Area/Payment on the Cut) for Bid Item No. 8, "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. Payment will be based on the result of the comparison of the Borrow Area Pre-Construction and Process/As-Built surveys. The Engineer will verify the pay quantities provided by the Contractor based on the Pre-Construction and Process/As-Built surveys conducted by the Contractor and Accepted by the Engineer. The Engineer, at their discretion, may verify the As-Built survey results of the Contractor with an independent Engineer's survey. The Engineer's survey will be used for payment if, in the Engineer's opinion, a significant difference is found between the Contractor's As-Built survey and the Engineer's survey. The quantity of Material placed above the tolerances stated in TS-400.5, will be deducted from payment per cubic yard at the Contract unit price. The volume of Material placed above the tolerances and/or outside the Marsh Creation Areas will be calculated by the Engineer. The Contractor may request partial payment, monthly, based on the cubic yards dredged from the Borrow Area. This volume shall be determined by the Accepted Borrow Area Process Surveys.

TS-600 WOVEN GEOTEXTILE FABRIC

600.1 Scope:

The Contractor shall furnish all of the Material, labor, and Equipment necessary to furnish, install, and maintain the Woven Geotextile Fabric beneath the required reaches of Earthen Containment Dikes, as shown on the Plans and in accordance with these Specifications and in conformity to the lines, grades, elevations and tolerances shown on the Plans.

600.2 Materials:

The Woven Geotextile Fabric shall consist of polypropylene (PP) monofilaments. The edges of the Woven Geotextile Fabric shall be selvage. The Woven Geotextile Fabric shall contain stabilizers and/or inhibitors to increase the resistance of the filaments against the deterioration due to ultraviolet light and heat exposure.

600.2.1 Seams:

Each panel of Woven Geotextile Fabric shall consist of multiple geotextile rolls that are sewn together to form the largest possible panel area. All panel seams shall be sewn at the factory in double rows using high strength polyester (PET) yarns. Each row of stitching shall be located a minimum of two (2) inches from the Woven Geotextile Fabric edge and a minimum of one (1) inch between rows.

600.2.2 Certified Material Test Reports:

The Contractor shall furnish the Resident Project Representative and Engineer with certified Material test reports for each panel from the manufacturer at least two (2) weeks prior to installation. The report shall be signed by an authorized representative of the manufacturer and attest that all panels comply with the physical requirements of this Specification.

A three (3) by three (3) foot sample of the panel with seam shall also be provided to the Engineer.

The woven geotextile fabric shall meet or exceed the requirements of the following minimum physical properties:

Physical Property	ASTM Test Method	Requirement	
Ultimate tensile strength	D4595	MARV-MD = 4800 Lbs/ft	MARV-CD = 4800 Lbs/ft
Tensile strength at 5% strain	D4595	MARV-MD = 2400 Lbs/ft	MARV-CD = 2700 Lbs/ft
Factory Sewn Seam Strength	D4884	Minimum of 3000 Lbs/ft	
Elongation at Break	D4595	10% in any principal direction	
Puncture Resistance	D6241	Minimum of 2000 Lbs	
Ultraviolet Resistance	D4355	Minimum of 80% retained at 500 hrs	
Apparent Opening Size	D4751	Maximum equal to U.S. Standard Sieve No. 30	

600.3 Shipment and Storage:

Each panel of Woven Geotextile Fabric shall be protected from moisture, dust, debris, ultraviolet light, and other contaminants during shipment and storage. Each panel shall also be labeled with the following information:

600.3.1 Name of manufacturer;

600.3.2 Product identification;

600.3.3 Date of manufacture;

600.3.4 Batch and panel numbers.

600.4 Installation:

The Woven Geotextile Fabric shall be installed beneath the required sections of Earthen Containment Dikes to the lines and grades shown on the Plans. Each panel shall be installed with the machine direction perpendicular to the centerline of the Earthen Containment Dike. Wrinkles and sags in the panels shall be minimized prior to placement of Earthen Containment Dike material. As shown on the Plans and as detailed in TS-300.2, all woven geotextile fabric shall be placed at elevations no lower than -1.5 FT NAVD88.

600.4.1 Plan:

The Contractor shall provide a panel placement plan in the Work Plan.

600.4.2 Foundation Preparation:

The surface of the Earthen Containment Dike shall be smooth and free of obstructions, depressions, and debris prior to installation of the panels.

600.4.3 Edge Laps:

Each panel shall be centered on the Earthen Containment Dike alignment such that a minimum of five (5) feet of soil cover is provided, following completion of a fully constructed Earthen Containment Dike section at each location of Woven Geotextile Fabric installation.

600.4.4 Material Placement:

The Woven Geotextile Fabric shall be protected from damage by limiting the drop height of material to less than one (1) foot.

600.5 Rejection:

Panels shall be rejected if major defects, rips, holes, flaws, deterioration, or other damage is detected during inspections by the Resident Project Representative, Owner, or Engineer.

600.6 Acceptance:

The Contractor may request Acceptance of Woven Geotextile Fabric, provided the Woven Geotextile Fabric As-Built Survey has been submitted and shows that the Woven Geotextile Fabric construction has been performed in conformance with the Plans and these Specifications.

600.7 Measurement and Payment:

Payment for this item will be made at the Contract unit price per square yard for Bid Item No. 9 "WOVEN GEOTEXTILE FABRIC (TS-600)". The Woven Geotextile Fabric shall be measured in place, excluding panel overlaps, to the nearest square yard. Payment shall constitute full compensation for furnishing the labor, Equipment, and other incidentals related to these items of the Work. No payment shall be made for panels that are rejected by the Engineer. The Contractor may request partial payment, monthly, based on the square yards of Woven Geotextile Fabric placed. This volume shall be determined by the Accepted Woven Geotextile Fabric Process Surveys.

TS-640 NON-WOVEN GEOTEXTILE FABRIC

640.1 Scope:

The Contractor shall furnish all of the Materials, labor, and Equipment necessary to obtain and attach the Non-Woven Geotextile Fabric to the bottoms of the Articulated Concrete Mats prior to placement atop the Earthen Containment Dikes necessitating Earthen Containment Dike Armoring, in accordance with the Plans and these Specifications.

Manufacturer's Specifications and construction sequencing of this item shall be submitted in the Work Plan.

640.2 Materials:

The Non-Woven Geotextile Fabric shall meet or exceed the geotextile physical property requirements specified in the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition, Section 1019.01, Table 1019-1 for Class D geotextile. The Material shall be a Non-Woven Geotextile consisting only of long chain polymeric filaments or yarns formed into a stable network such that the filaments or yarns retain their position relative to each other during handling, placement, and throughout the design service life. At least eighty-five percent (85%), by weight of the material shall be polypropylenes, polyesters, polyamides, polyethylene, or polyolefins. The Non-Woven Geotextile Fabric shall be free of any treatment or coating which might adversely alter the geotextile's hydraulic or physical properties after installation. When required, the Non-Woven Geotextile Fabric shall contain stabilizers and/or inhibitors added to the base material to make filaments resistant to deterioration due to ultraviolet light and/or heat exposure. The edges of the Non-Woven Geotextile Fabric shall be selvage. The Non-Woven Geotextile Fabric shall be free from defects or tears. Thread used for factory or field sewing shall be of contrasting color to the geotextile and made of high strength polypropylene, polyester, or polyamide thread. The Apparent Opening Size (AOS) of Non-Woven Geotextile Fabric shall be of sufficient minimum spacing size needed to prevent material losses through the openings in the fabric media. This AOS shall be equivalent to the minimum AOS as required in TS-600.2.

640.3 Installation:

The Non-Woven Geotextile Fabric shall be installed in accordance with the lines and grades shown on the Plans, and to the requirements contained in these Specifications, or as directed by the Engineer. Installation of the Non-Woven Geotextile Fabric shall be consecutive with placement of the Articulated Concrete Mats, to comprise the Earthen Containment Dike Armoring feature. The Contractor shall prepare the surface to receive the Non-Woven Geotextile Fabric such that it is relatively smooth and free of obstructions, depressions, debris, and soft or low density pockets of material which could cause damage to the Material. All wrinkles and sags shall be stretched out immediately before Articulated Concrete Mat installation. Note the Contractor may also pre-attach the Articulated Concrete Mats to the Non-Woven Geotextile Fabric, which shall be submitted as a proposed method in the Work Plan and subject to approval by the Engineer. Prior to installation, any Non-Woven Geotextile Fabric with defects, rips, holes, flaws, deterioration or damage shall be rejected. The Non-Woven Geotextile Fabric shall be protected at all times to assure the original chemical and physical properties remain unchanged.

Any Non-Woven Geotextile Fabric rejected or damaged shall be replaced by the Contractor prior to utilizing as part of the fulfillment of Bid Item No. 9 "NON-WOVEN GEOTEXTILE FABRIC (TS-640)".

640.3.1 Seams and End Laps:

Each Non-Woven Geotextile Fabric panel shall consist of multiple strips factory sewn for as large a panel area as manageable. The panels must conform to the

placement area as shown on the Plans. Adjacent panels shall be overlapped a minimum of five (5) feet.

640.4 Shipment and Storage:

Rolls of Non-Woven Geotextile Fabric shall be shipped, transported and maintained in a protective cover prior to placement. Each roll shall be labeled or tagged with the manufacturer's name, date of manufacture, batch number, and name of product.

640.5 Acceptance:

The Contractor shall furnish a signed mill certificate or affidavit to the Engineer at least 30 days prior to installation, as stated in SP-3. The mill certificate or affidavit shall attest the Non-Woven Geotextile Fabric and seams are in compliance with the requirements of these Specifications.

The Contractor shall also provide a three (3) foot by three (3) foot sample of the Non-Woven Geotextile Fabric to the Engineer.

640.6 Ratio of Effort: Ninety percent (90%) of the Contract cost for this bid item will be paid to the Contractor after installation of the non-woven geotextile. The remaining ten percent (10%) will be paid to the Contractor after Acceptance of the respective Marsh Creation Area(s) 1 and all earthen containment dikes.

640.7 Measurement and Payment: Payment shall be made at the Contract Unit Price per Square Yard for Bid Item No. 10, "NON-WOVEN GEOTEXTILE FABRIC (TS-640)", Alternate No. 1 Bid Item No. 14 "NON-WOVEN GEOTEXTILE FABRIC (TS-640)" (if accepted), and Alternate No. 2 Bid Item No. 18 "NON-WOVEN GEOTEXTILE FABRIC (TS-640)" (if accepted). Payment shall constitute full compensation for furnishing the labor, Equipment and other incidentals related to this item of Work. The Contractor may request partial payment, monthly, based on the square yards of Non-Woven Geotextile Fabric placed. This quantity shall be determined by the Accepted Non-Woven Geotextile Fabric Process Surveys.

TS-750 ARTICULATED CONCRETE MATS

750.1 Scope:

The Contractor shall furnish all of the Materials, labor and Equipment necessary to install the Articulated Concrete Mats (ACMs) at all necessary locations, as shown in accordance with the Plans and these Specifications. Manufacturer's Specifications and construction sequencing of this item shall be provided in the Work Plan.

750.2 Materials:

Each ACM shall consist of individual concrete elements that are interlinked to form overall minimum dimensions of eight (8) feet in width, twenty (20) feet in length, as shown in the Plans. The open area of the entire ACM shall not exceed twenty percent (20%). Interlocking and cabled ACM block elements are required. Two (2) types of individual concrete elements are called for in the Plans and as described in these Specifications.

The Contractor shall submit manufacturer specifications of the ACM Materials in the Work Plan which shall be subject to approval by the Engineer.

750.2.1 Open Cell Concrete Elements:

As shown in the Plans, Open Cell ACMs are required for placement along all portions of required Earthen Containment Dike Armoring, excluding the anchor toe system. Each Open Cell Concrete Element shall be cast as an open cell and have minimum dimensions of twelve (12) inches in width, twelve (12) inches in length, and a minimum of four (4) inches in nominal thickness, unless otherwise approved by the Engineer. The dimensional tolerance of each Concrete Element shall be \pm one-quarter ($1/4$) of an inch. The Concrete shall have a minimum compressive strength of 4,000 psi and minimum density of 125 pounds per cubic foot. The edges of the Concrete Elements shall be tapered enough to allow for a minimum articulation angle of forty-five (45) degrees in all directions, provided this does not inhibit the Concrete Elements' interlocking ability.

750.2.2 Closed Cell Concrete Elements:

As shown in the Plans, Closed Cell ACMs are required for placement along all portions of required Earthen Containment Dike Armoring, in order to form the anchor toe system.

Each Closed Cell Concrete Element shall be cast as a closed cell and have minimum dimensions of twelve (12) inches in width, twelve (12) inches in length, and a minimum of nine (9) inches in nominal thickness, unless otherwise approved by the Engineer. The dimensional tolerance of each Concrete Element shall be \pm one-quarter ($1/4$) of an inch. The Concrete shall have a minimum compressive strength of 4,000 psi and minimum density of 125 pounds per cubic foot. The edges of the Concrete Elements shall be tapered enough to allow for a minimum articulation angle of forty-five (45) degrees in all directions, provided this does not inhibit the Concrete Elements' interlocking ability.

750.2.3 Cables and Interlinks:

The Interlinks shall be embedded during the casting of the concrete elements and effectively bind all adjacent elements. The Interlinks shall be composed of either polyester cable, copolymer rope, or steel cable. The interlinks should have good resistance to chemicals, ultra-violet light, high salinity, rot and corrosion. The minimum tensile strength of each Interlink shall be a minimum of 150% of the total weight of one (1) concrete element, unless otherwise approved by the Engineer.

750.2.4 Interlocking Blocks:

The ACM Elements shall be interlocking and shall be capable of resisting block movement in both the X and Y directions of a Cartesian plane.

750.3 Installation:

The ACMs shall be installed atop the Non-Woven Geotextile Fabric in accordance with the lines and grades shown on the Plans, and to the requirements contained in these Specifications, or as directed by the Engineer. The 4' anchor toe system shall be maintained along all locations requiring Earthen Containment Dike Armoring. The Contractor shall propose a Grouting Plan along all points of inflection where ACM minimum dimensions can not provide continuous coverage. Grouting may also be proposed in order to connect multiple ACMs to achieve greater lengths. The use of all Grouting shall be proposed in the Work Plan and shall be subject to approval by the Engineer. The ACMs shall be connected or fastened together using cable clamps, or approved equal. The Non-Woven Geotextile Fabric shall be protected from damage during placement of the ACMs.

750.4 Shipment and Storage:

ACMs shall be shipped, transported and maintained in a protective cover prior to placement. Each shipment shall be labeled or tagged with the manufacturer's name, date of manufacture, batch number, and name of product.

750.5 Maintenance:

The Contractor shall maintain the ACMs in good condition until Acceptance of the Work. Any ACMs rejected or damaged shall be replaced by the Contractor prior to utilizing said ACMs as part of the fulfillment of Bid Item No. 10 "ARTICULATED CONCRETE MATS (TS-750)".

750.5.1 Rejection:

The Owner reserves the right to reject any ACM that does not comply with these Specifications. All ACMs shall be free of defects that would interfere with the proper placing of the unit. Surface cracks incidental to the usual methods of manufacture, or surface chipping resulting from customary methods of handling in shipment and delivery, shall not be deemed grounds for rejection. An ACM shall be rejected if any of the interlinks between the concrete elements have been severed or more than ten (10) percent of any element is not intact.

750.6 Acceptance:

The Contractor shall furnish a signed chain of custody to the Engineer at least 30 days prior to Earthen Containment Dike Armoring Material Preparation, as stated in SP-3 and TS-301.3. The chain of custody shall include, at a minimum, dates, times, destinations, and departure locations, of each occurrence of delivery beginning with the distribution of the ACM payload from the manufacturer. The chain of custody shall be rendered invalid by the Engineer if any occurrence of delivery does not include name, contact information, and signature of a member of the responsible party of the delivery occurrence. Any chain of custody having invalid status shall not be considered for Acceptance. The Contractor shall submit a request for Acceptance pending the review of As-Built Survey by the Engineer, wherein detailed callouts showing ACM placement shall be required.

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 ACBs that are not properly installed.

The Contractor shall submit a request for Acceptance after construction and Process surveys of the respective marsh creation areas. 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 ACMs that are not properly installed.

750.6.1 Ratio of Effort:

Ninety percent (90%) of the Contract cost for this Bid item will be paid to the Contractor after installation of the ACMs. The remaining ten percent (10%) will be paid to the Contractor after Acceptance of Marsh Creation Area 1 and all earthen berms.

750.6.2 Measurement and Payment:

Payment shall be made at the Contract Unit Price per Square Yard for Bid Item No. 11, "ARTICULATED CONCRETE MATS (TS-750)", Alternate No. 1 Bid Item No. 15 "ARTICULATED CONCRETE MATS (TS-750)" (if accepted), and Alternate No. 2 Bid item No. 19 "ARTICULATED CONCRETE MATS (TS-750)" (if accepted). Payment shall constitute full compensation for furnishing the labor, Equipment, and other incidentals related to this item of Work. The Contractor may request partial payment, monthly, based on the square yards of Articulated Concrete Mats placed. This volume shall be determined by the Accepted Borrow Area Process Surveys.

END OF PART III – TECHNICAL SPECIFICATIONS

APPENDIX A: SUBCONTRACTOR REPORT FORM

PURCHASE ORDER NO. _____

PRIME CONTRACTOR _____

[illegible]

APPENDIX B: REQUEST FOR INTERPRETATION FORM

NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION
PROJECT (PO-0169)
Request for Information (RFI)

DATE:

RFI Number:

Summary of RFI by Contractor
Signature:

Response to RFI by Engineer
Signature:

APPENDIX C: CHANGE ORDER FORM

CHANGE ORDER NO. __

OWNER: State of Louisiana, Coastal Protection & Restoration Authority
CONTRACTOR
PROJECT: New Orleans Landbridge Shoreline Stabilization and Marsh Creation Project (PO-0169)
FILE NO: _____
SOLICITATION NO: _____
CONSTRUCTION
MANAGER: David Chambers, P.E.

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: _____

**NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION
PROJECT (BA-0125)**

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/additional contract time is requested to accomplish the work for the change order.

APPENDIX D: RECOMMENDATION OF ACCEPTANCE FORM

❖ NOT FOR RECORDATION PURPOSES ❖

RECOMMENDATION OF ACCEPTANCE

TO: Coastal Protection and Restoration Authority
150 Terrace Ave.
Baton Rouge, LA 70802

FROM: _____

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: _____
ENGINEER

FOR USE OF PROJECT MANAGER:

Signed: _____
PROJECT MANAGER

❖ NOT FOR RECORDATION PURPOSES ❖

APPENDIX E: LANDRIGHTS MEMORANDUM

Land Rights Completion Memorandum

May 7, 2021

To: Micaela Coner, PO-0169 Project Manager

From: Jordan Templet, PO-0169 Land Specialist

RE: Completion of Land Rights
New Orleans Landbridge Shorelines Stabilization and Marsh Creation Project
(PO-0169)

The CPRA Land Rights Division has completed all land rights necessary to proceed to construction contracting on the above referenced project. The following information is being transmitted via this memorandum, or has already been forwarded to you under separate memorandum:

<input checked="" type="checkbox"/> <i>Servitude Agreement(s)</i>	<input type="checkbox"/> <i>Mineral Operations Agreement(s)</i>
<input type="checkbox"/> <i>Pipeline Letters of No Objection</i>	<input checked="" type="checkbox"/> <i>Grant of Particular Use</i>
<input type="checkbox"/> <i>Pipeline Notices of Construction</i>	<input type="checkbox"/> <i>State Land Office Letter of No Objection</i>
<input type="checkbox"/> <i>Memorandum(s) of Agreement</i>	<input type="checkbox"/> <i>Assignment of Rights to Federal Sponsor</i>
<input type="checkbox"/> <i>CWPPRA Section 303(e) approval</i>	<input type="checkbox"/> <i>Land Rights Certification Letter</i>
<input type="checkbox"/> <i>Right(s) of Entry for Construction</i>	<input type="checkbox"/> <i>Other: Utility Letter of No Objection</i>

Please note the attached PO-0169 Land Rights Owners-Pipelines-Utilities Special Requirements and contact information, dated May 7, 2021 in addition to the actual agreements and other pertinent documents previously provided) that will need to be included in the contract specifications and/or for future monitoring, operations and maintenance site visits/activities.

Please also note regarding the pipelines and utilities (as duly noted in the Special Requirements): **The construction contractor will need to contact Louisiana One Call at (800) 272-3020 at least five (5) business days prior to construction.**

Based on CPRA's field reconnaissance and review of the GIS data, neither oil and gas operations, nor pipelines should be adversely impacted by the project. The assumption resulting from CPRA's investigations does not include oil and gas operations that might commence at some future date. "due diligence" investigations (eg, magnetometer surveys, contacts to LaOneCall, etc.) will be required by the construction contractor to verify if there are any additional lines. Special care and close coordination with the pipeline companies and/or operators will also be needed to avoid impacts to any potential pipelines or oil and gas infrastructure in the project area. Proper signage may also be needed to prevent potential issues regarding navigation, along with any oil and gas infrastructure that may be impacted by the project.

Provided herein is contact information for landowners, pipelines and utilities within the designated project and the project feature(s) located on their property, including monitoring stations:

I. Landowner Information

Land Rights Completion Memo
New Orleans Landbridge Shoreline Stabilization and Marsh Creation Project (PO-0169)

- A. Chef Menteur Land Co., Ltd.
Attn: William Bruce Mahler, President
PMB 135, 17515 Spring Cypress Ste C
Cypress, TX 77429
- B. Yolanda Cardoza Figueroa
4312 Bissonet Drive
Metairie, LA 70003
- C. Bryan Burch and Marcella Demoran Burch
80 Villere Place
Destrehan, LA 70047
- D. George E. Burch, II and Clare Masters Burch
5504 Key Street
Dallas, TX 75205
- E. Chef Menteur Land Co., LTD.
Attn.:Kathleen Fos, Secretary/Treasurer
13926 Sherburn Manor Drive
Cypress, TX 77429
- F. George Winingham and wife, Karol Ann Motto Winingham
Route 6 Box 100 Hospital Rd.
New Orleans, LA 70129
- G. CRX, LLC.
Attn: Randy Laumann
1723 Marengo St.
New Orleans, LA 70115
- H. Park Investments, Ltd.
Attn: Lewis S. Frank
3421 N. Causeway Blvd. Ste. 802
Metairie, LA 70002
- I. Louisiana State Land Office, Division of Administration
Attn: Cheston Hill, Public Lands Administrator
225-219-9454
P.O. Box 44124
Baton Rouge, LA 70802

II. Pipelines (abandoned)

- J. Apache Corp.
Attn: Timothy Allen
Email: timothy.allen@apachecorp.com
Phone: (985)-879-3528 Ext. 8719
- K. Southern Natural Gas Co. (Kinder Morgan)
Attn: Karl Casanova
Email: karl_casanova@kindermorgan.com
Phone: (985) 515-3709

This land rights completion memo will be sent to you in pdf electronic format, which we request that you forward to any additional persons you deem necessary.

Thank you for your attention to this matter,

A handwritten signature in blue ink, appearing to read "Jordan Templet", with a long, sweeping horizontal line extending to the right.

Jordan Templet
CPRA – Land Specialist III

Attachments: Special Requirements

Special Requirements

May 7, 2021

RE: Completion of Land Rights
New Orleans Land Bridge Shoreline Stabilization and Marsh Creation Project
(PO-0169)

All agreements are for a 20-year terms. Please note the following information that will need to be included in the contract specifications and/or for future monitoring, operations and maintenance site visits:

I. Landowner (Grantor) Standard Notification Requirements

- A. The following notice language is in Article I of the CPRA standard form Temporary Easement, Servitude and Right-of-Way Agreement (the “Agreement”). “This Agreement grants the rights to enter said Lands, (further identified on Exhibit A attached hereto), to perform construction, operation, modification, monitoring, and maintenance and such other activities described on Exhibit B, (attached hereto), necessary to complete the Project.”
- B. The following notice language is in Article II of the CPRA standard form Temporary Easement, Servitude and Right-of-Way Agreement (the “Agreement”). “STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.”
- C. The following notice language is in Paragraph 6 of the Grant of Particular Use and Right of Entry for Construction (the “GPU”) between CPRA and OSL: “Pursuant to the Permits and Responsibilities clause, you are required to contact the Administrator of the Office of State Lands or his representative at (225) 342-4578, to notify the Office when work will commence on State-owned seashore, State lands and/or State water bottoms.”

II. Special Conditions in Agreements

Legal Description - Chef Menteur Land Co., LTD.

Lands located in Sections 32 and 33 Township 10 South, Range East, Orleans Parish, Louisiana, limited to that certain portion of Tract &-004 within the X,Y coordinates as referenced and shown on Exhibit-A, attached hereto and made a part hereof.

Article II. - Chef Menteur Land Co., LTD.

STATE agrees to give at least forty-eight hours notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

Article III. - Chef Menteur Land Co., LTD.

Data collected on the Lands shall be provided to GRANTOR by the STATE. “Data” shall mean any information that STATE, its employees, contractors, consultants, agents and representatives (collectively, its “Representatives”) have gathered or hereafter gather relating to the Lands related to the project, whether gathered before or after the Effective Date, whether tangible or intangible and in whatever form or medium provided, oral or written including without limitation any and all reports and/or non-attorney work product obtained or generated by STATE relating to the Lands. Data includes any all data gathered relating on the Lands, related to the project by way of illustration, but not limitation and irrespective of the form of communication, all photos, core samples, surveys, maps, charts, publications, other engineering data, title information, technical data, environmental data, economic data and financial data. Data shall not include any attorney-client privileged information and/or attorney work product. Upon written request of the GRANTOR, STATE shall provide to GRANTOR, at STATE’s sole expense, a copy of any of the above Data as listed herein and requested by GRANTOR, within 15 days of GRANTOR’s request.

Article IV. – Chef Menteur Land Co., LTD.

GRANTOR or GRANTOR’s consultant may be onsite at all times to observe and monitor the Project, provided however that GRANTOR or GRANTOR’s consultant shall not interfere with construction activities.

Article V – Chef Menteur Land Co., LTD.

To the extent permitted by Louisiana law, STATE shall, indemnify, and hold GRANTOR harmless against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, subcontractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys’ fees. However, nothing herein shall be construed as indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, subcontractors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as additional insured on any policies carried by the contractor, including completed operations coverage and provide GRANTOR copies of all insurance certificates listing GRANTOR as additional insured. The STATE acknowledges, declares and

stipulates that GRANTOR has provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10(C), as amended by Act No. 734 of the 2010 Regular Session of the Louisiana Legislature. This clause shall survive the term of this agreement.

Article XV. – Chef Menteur Land Co., LTD.

This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of twenty (20) years unless sooner released by STATE provided that construction of the Project commences within twenty-four (24) months of said effective date. In the event that construction has not commenced within twenty-four (24) months of the effective date of this Agreement this Agreement shall expire.

Standard Exhibit “B”

- a. The right to construct (including the necessary excavation and/or filling), operate, maintain and monitor water control structures including all appurtenances thereto, in, over and across the said Lands as shown on Exhibit A;
- b. The right to construct, operate, maintain and monitor structures or improvements to enhance the deposition of sediment upon said Lands as shown on Exhibit A;
- c. The right to plant or cause the growth of vegetation in, on, over and across said Lands, including the right to nourish, replenish and maintain said vegetation at locations shown on Exhibit A;
- d. The right to plug, close or fill selected channels, canals, ditches, streams or waterbodies located on said Lands as shown on Exhibit A;
- e. The right to construct (including the necessary borrow areas), maintain and monitor overflow banks so as to preclude the exchange of channelized water on, over and across said Lands shown on Exhibit A;
- f. The right to deposit dredged sediment and/or fill material on, over and across said Lands by either natural or mechanical means, including the right to alter land and/or water contours and undertake management practices to enhance or extend the beneficial use of dredged or sediment deposition for wetland creation, restoration and enhancement as shown on Exhibit A;
- g. The right to borrow, excavate, grade, and remove soil, vegetation and associated materials from the said Lands as shown on Exhibit A;
- h. The right to construct, operate, maintain and monitor channel improvements works on, over and across said Lands, including the right to enlarge, improve, deepen or realign existing channels, canals, ditches or other waterways as shown on Exhibit A;

- ~~i. The right to construct and maintain fencing material to encourage the deposition of sand/sediment on said Lands as shown on Exhibit A;~~
- j. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands as shown on Exhibit A;
- k. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands as shown on Exhibit A;
- l. The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;
- m. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;
- n. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;
- o. The right to enter and traverse said Lands to access Project features located on adjacent Lands;
- p. The right, to permanently overflow, flood and submerge the said Lands, *including the right to deposit dredged or sediment material on, over and across said Lands* in connection with the operation and maintenance of the Project, and the continuing right to clear and remove any brush, debris and natural obstructions on said Lands which may be detrimental to the Project as determined by CPRA, its successors and assigns, provided that no excavation shall be conducted and no landfill placed on said Lands without *GRANTOR'S* approval as to the said location and method of excavation and/or placement of landfill; and
- q. The right to make modifications to the above, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project.

Special Conditions Exhibit “B” – Chef Menteur Land Co.

- g. The right to borrow, excavate, grade, and remove soil, vegetation and associated materials from the said Lands from the marsh creation area as shown on Exhibit A; all soil and vegetation borrowed, excavated or removed from said Lands from the marsh creation area shall be restored on said Lands.
- i. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands as shown on Exhibit A; Additional written approval containing proposed new locations of

pipelines, utility lines, facilities or other structures must be obtained from GRANTOR prior to construction;

- l. The right to alter, remove, and leave structures and/or appurtenances constructed on said Lands by State pursuant to the Project. If STATE exercises its right to leave structures and/or appurtenances constructed on said Lands, STATE shall notify the GRANTOR and give the GRANTOR sixty (60) days written notice to object to leaving any structures and/or appurtenances on said Lands

The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality; The right to enter and traverse only those lands directly adjacent to the Marsh Creation area running along the following X,Y coordinates as shown on Exhibit- A: X: 816142.992331 Y:3339227.59366, X: 816162.88468 Y: 3339207.00392, X: 816234.765024 Y: 3339183.75105, X: 816306.645407 Y: 3339160.49816, X: 816416.272783 Y: 3339083.98553, X: 816602.921572 Y: 3338888.9051, X: 816604.596838 Y: 3338841.8511, X: 816626.588408 Y: 3338823.58148, X: 816699.660357 Y: 3338829.29968, X: 816713.59883 Y: 3338845.1391, X: 816716.791151, Y: 3338920.69341,X: 816762.316103, Y: 3339143.88131, X: 816778.593111 Y: 3339223.68048 to access Project features located on said Lands;

- o. The rights granted to the STATE pursuant to the Agreement are nonexclusive and subordinate to any and all other existing easements, servitudes and rights-of-way granted by GRANTOR. Additionally, GRANTOR expressly reserves the right to grant additional easements, servitudes and/or rights of way in the future on said lands as it deems necessary, except that such easements, servitudes and rights-of-way shall not interfere with or limit the rights granted to the STATE pursuant to the Agreement. GRANTOR further reserves the right to perform its own restoration activities on said Lands subject to this Servitude, except that such easements, servitudes and rights-of-way shall not interfere with or limit the rights granted to the STATE pursuant to the Agreement.
- p. STATE shall remove or dispose of all debris and obsolete structures associated with construction, operation and maintenance of the Project as soon as reasonably possible upon completion of the respective STATE activity.
- q. If any action of STATE's employees or agents in the exercise of this right-of-entry results in damage to GRANTOR's property located outside the areas shown on Exhibit A, which damage occurs prior to completion of construction of the Project and is directly attributable to and a result of construction activities for the Project (and excluding any damages arising from the existence or presence of Project features), STATE will, in its sole discretion, either repair such damage or make an

appropriate and mutually agreed upon settlement with GRANTOR. In no event shall such repair or settlement as to damage to real property exceed the fair market value of the fee title to the real property at the time immediately preceding such damage. STATE's liability under this paragraph is subject to the availability of appropriation for such payment, and nothing contained in this Agreement may be considered as implying that the Louisiana Legislature will at a later date appropriate funds sufficient to meet any deficiencies. The provisions of this paragraph are without prejudice to any rights GRANTOR may have to make a claim under applicable laws for any damages caused to GRANTOR's property and/or improvements thereon as a result of STATE's activities hereunder.

- r. In its exercise of the rights granted pursuant to the Agreement, STATE agrees not to unreasonably interfere with oil spill removal activities now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of oil spill removal activities thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to the Agreement.

APPENDIX F: PERMITS OBTAINED BY OWNER



LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

FILL MATERIALS LICENSE

LICENSE NUMBER: WLF2021015

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

Licensee:

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

Location: Lake St. Catherine and Lake Pontchartrain

City/Town: Slidell

Parish: Orleans

Latitude: 30.136565

Longitude: 89.785058

Class D License:

Rate: 00¢ per cubic yard

Corps Permit Number: MVN-2016-00651-EG CUP Number: C20190070

Volume: 1,447,472 cubic yards

Project Description: Use material for the New Orleans Landbridge Shoreline Stabilization and Marsh Creation to create 269 acres and nourish 461 acres of brackish marsh. (PO-0169)

Initiate: January 1, 2021

Expiration: December 31, 2021

*In the event that licensee reaches the amount applied for prior the December 31, 2021, the license will **expire** at that time.*

The use of the fill material authorized for removal by this license is subject to the following restrictions:

- 1. The Department of Wildlife and Fisheries shall be notified prior to removal of the material and again be notified upon completion of the project.**
- 2. All provisions of the Fill Material License shall be adhered to.**
- 3. This license shall be posted in a conspicuous place at the project site during the activities authorized.**

IS/ Randell S. Myers

Randell S. Myers, Assistant Secretary



REPLY TO
ATTENTION OF

Operations Division
Eastern Evaluation Section

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS, LOUISIANA 70118

12 November 2020

SUBJECT: MVN-2016-00651-EG

Coastal Protection and Restoration Authority
Attn: Sydney Dobson
P.O. Box 44027
Baton Rouge, LA 70804

Dear Mr. Dobson,

The proposed work, to construct and restore marsh habitat near LA Hwy. 90 and within an area of existing degraded marsh near Lake St. Catherine, located at approximately 30.150124°N, -89.746828°W, in Orleans Parish, Louisiana, as shown on the enclosed drawings, is authorized under **Category II** of the **Programmatic General Permit** provided that all conditions of the permit are met.

You must comply with the enclosed: "STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES".

This authorization has a blanket water quality certification from the Louisiana Department of Environmental Quality; therefore, no additional authorization from DEQ is required.

However, prior to commencing work on your project, you must obtain approvals from state and local agencies as required by law and by terms of this permit. These approvals include, but are not limited to, a permit, consistency determination or determination of "no direct or significant impact (NDSI) on coastal waters" from the Louisiana Department of Natural Resources, Office of Coastal Management.

This approval to perform work is valid for 5 years from the date of this letter. Permittee is aware that this office may reevaluate its decision on this permit at any time the circumstances warrant.

Should you have any further questions concerning this matter, please contact Angelle Greer at (504) 862-2279 or angelle.v.greer@usace.army.mil.

Sincerely,

for
Martin S. Mayer
Chief, Regulatory Branch

Enclosures



State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

July 15th 2019

Sydney Dobson
Louisiana Coastal Protection and Restoration Authority
150 Terrace Ave
Baton Rouge, LA, 70802
Via e-mail: Sydney.Dobson@la.gov

RE: **C20190070**, Coastal Zone Consistency
Louisiana Coastal Protection and Restoration Authority
Federal License or Permit
New Orleans land bridge marsh creation project, PO-0169.
Orleans Parish

Dear Sydney Dobson:

The above referenced project has been reviewed by this Office and has been found to be consistent with the Louisiana Coastal Resources Program as required by Section 307(c) (3) (B) of the Coastal Zone Management Act of 1972 as amended.

If you have any questions concerning this determination please contact Mark Hogan of the Consistency Section at (225) 219-9530 or Mark.Hogan@la.gov.

Sincerely yours,

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

CR/SK/mfh

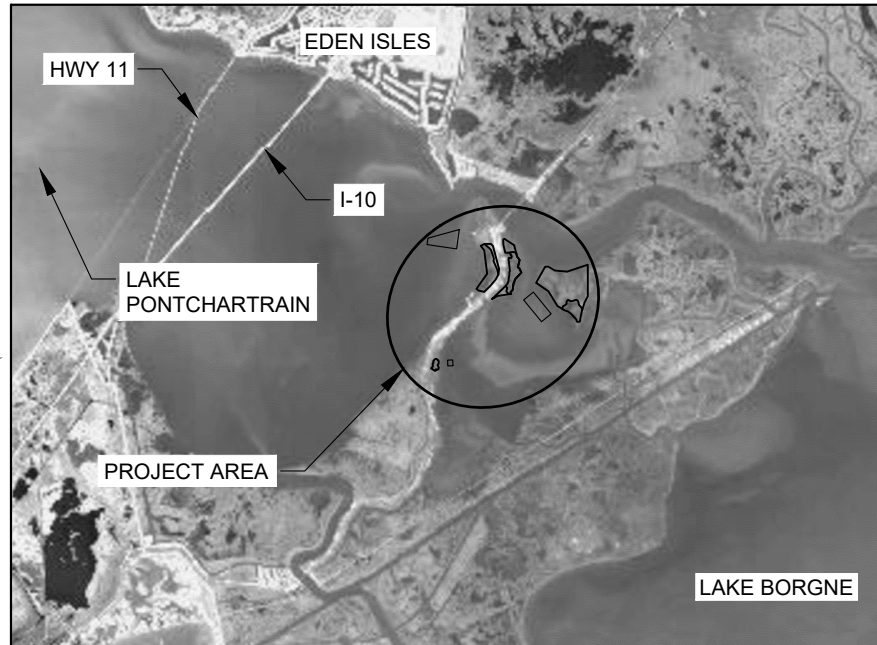
cc: Darrell Barbara, USACE
Dave Butler, LDWF
Frank Cole, DNR

INDEX TO SHEETS

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- 2 PROJECT LAYOUT
- 3 BORROW AREA 1 LAYOUT
- 4 BORROW AREA 2 LAYOUT
- 5 BORROW AREA 3 LAYOUT
- 6 MARSH CREATION
AREAS 1 & 2 LAYOUT
- 7 MARSH CREATION AREA 3
LAYOUT
- 8 MARSH CREATION AREA 4
AND EARTHEN PLUG LAYOUT
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CENTERLINE COORDINATES
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TYPICAL SECTIONS
- 11 MARSH CREATION AREA 1
TYPICAL SECTION
- 12 MARSH CREATION AREA 2
TYPICAL SECTION
- 13 MARSH CREATION AREA 3
TYPICAL SECTION
- 14 MARSH CREATION AREA 4
TYPICAL SECTION
- 15 ARMORED EARTHEN
CONTAINMENT DIKE
TYPICAL SECTION
- 16 EARTHEN PLUG
TYPICAL SECTION

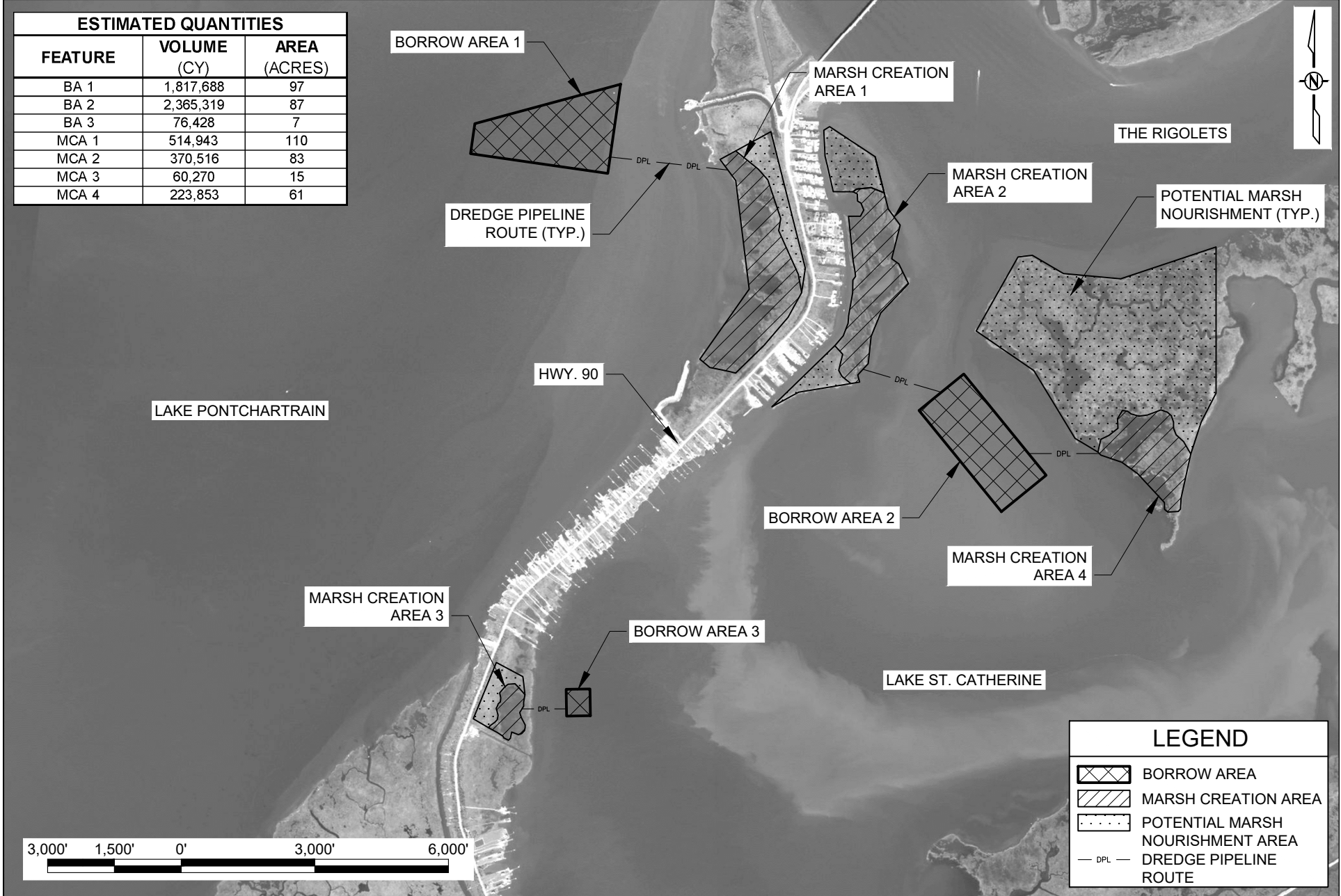
STATE OF LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION & MARSH CREATION PO-0169 ORLEANS PARISH



FOR PERMITTING ONLY
DOCUMENTS ARE NOT TO BE USED FOR
CONSTRUCTION, BIDDING, RECORDATION,
CONVEYANCE, OR SALES.

<p>APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA 70802</p>	<p>COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802</p>	<p>NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION & MARSH CREATION</p>	<p>TITLE SHEET</p>
<p>DRAWN BY: SHANE FAUST</p>	<p>DESIGNED BY: GREG MATTSON, P.E. - PE 0042397</p>	<p>STATE PROJECT NUMBER: PO-0169 APPROVED BY: JASKARAN SINGH, P.E.</p>	<p>DATE: MARCH 2019 SHEET 1 OF 16</p>

ESTIMATED QUANTITIES		
FEATURE	VOLUME (CY)	AREA (ACRES)
BA 1	1,817,688	97
BA 2	2,365,319	87
BA 3	76,428	7
MCA 1	514,943	110
MCA 2	370,516	83
MCA 3	60,270	15
MCA 4	223,853	61

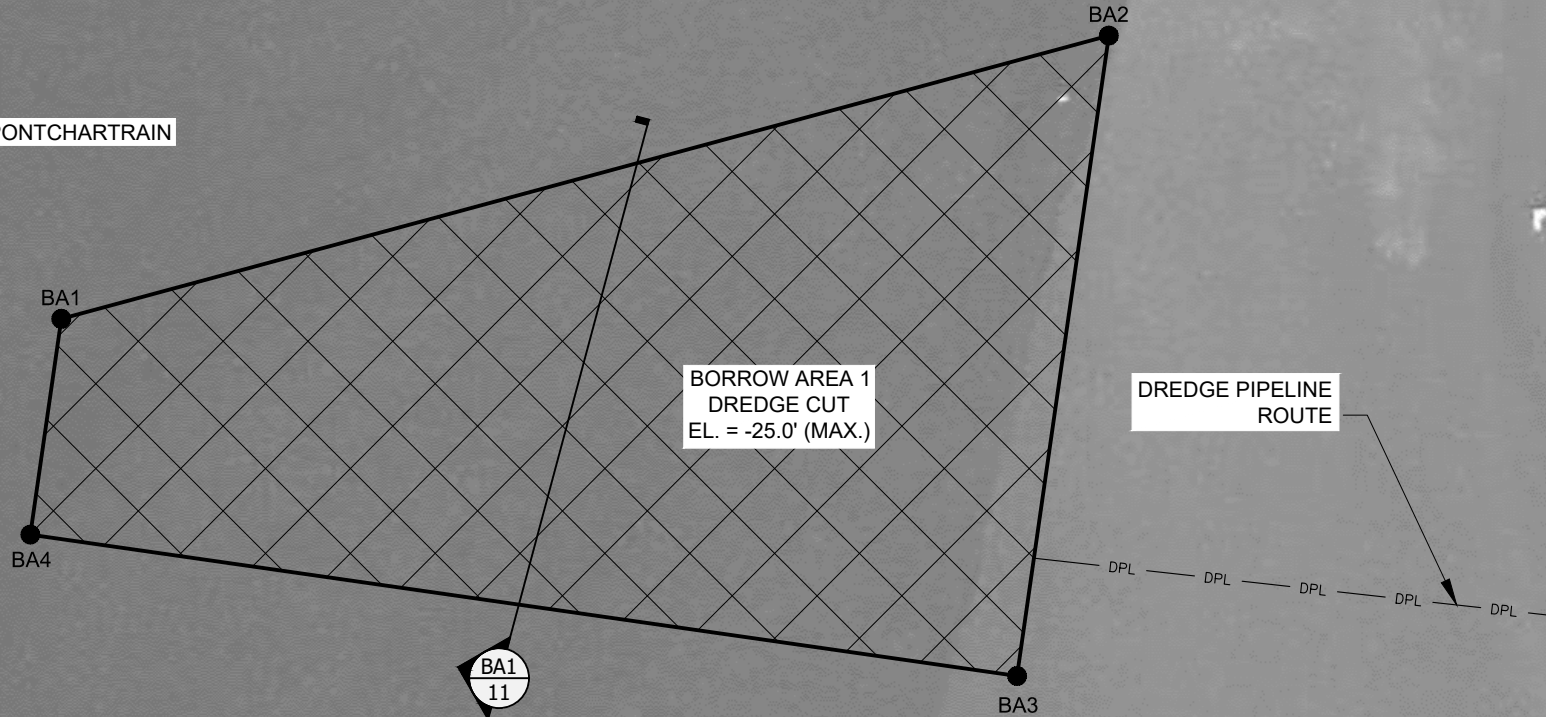


APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA. 70802	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION & MARSH CREATION	PROJECT LAYOUT
		STATE PROJECT NUMBER: PO-0169	DATE: MARCH 2019
DRAWN BY: SHANE FAUST	DESIGNED BY: GREG MATTSO, P.E. - PE.0042397	APPROVED BY: JASKARAN SINGH, P.E.	SHEET 2 OF 16

BORROW AREA 1 BOUNDARY COORDINATES		
POINT	LAT	LONG
BA1	30° 09' 51.26"	89° 45' 44.06"
BA2	30° 09' 59.57"	89° 45' 06.63"
BA3	30° 09' 39.80"	89° 45' 10.21"
BA4	30° 09' 44.60"	89° 45' 45.26"



LAKE PONTCHARTRAIN



DREDGE PIPELINE
ROUTE

BORROW AREA 1
DREDGE CUT
EL. = -25.0' (MAX.)

DPL — DPL — DPL — DPL — DPL

LEGEND	
	BORROW AREA
	DREDGE PIPELINE ROUTE

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LA. 70802

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

NEW ORLEANS LANDBRIDGE SHORELINE
STABILIZATION & MARSH CREATION

BORROW AREA 1
LAYOUT

STATE PROJECT NUMBER: PO-0169

DATE: MARCH 2019

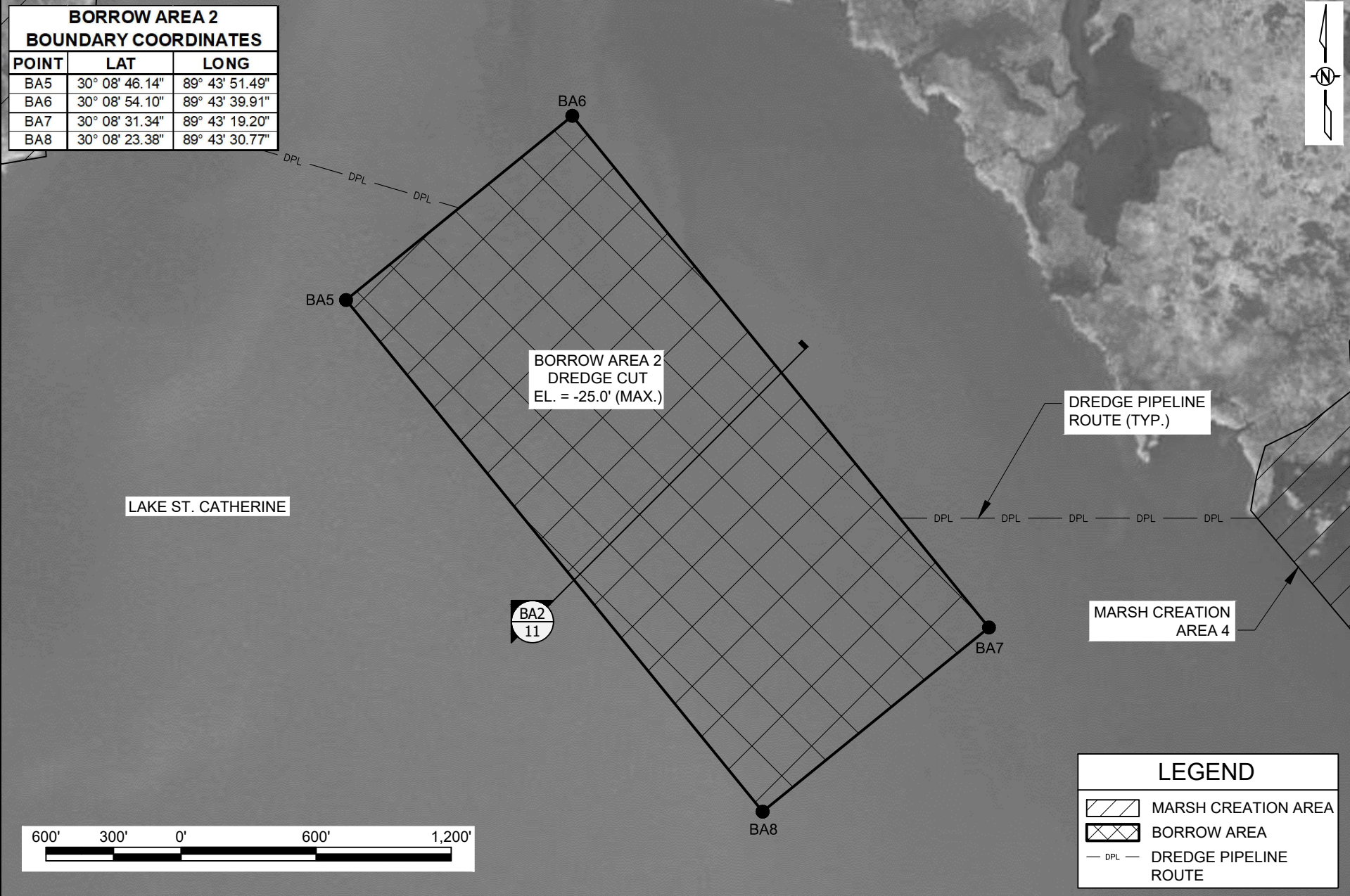
DRAWN BY: SHANE FAUST

DESIGNED BY: GREG MATTSO, P.E. - PE.0042397

APPROVED BY: JASKARAN SINGH, P.E.

SHEET 3 OF 16

BORROW AREA 2 BOUNDARY COORDINATES		
POINT	LAT	LONG
BA5	30° 08' 46.14"	89° 43' 51.49"
BA6	30° 08' 54.10"	89° 43' 39.91"
BA7	30° 08' 31.34"	89° 43' 19.20"
BA8	30° 08' 23.38"	89° 43' 30.77"



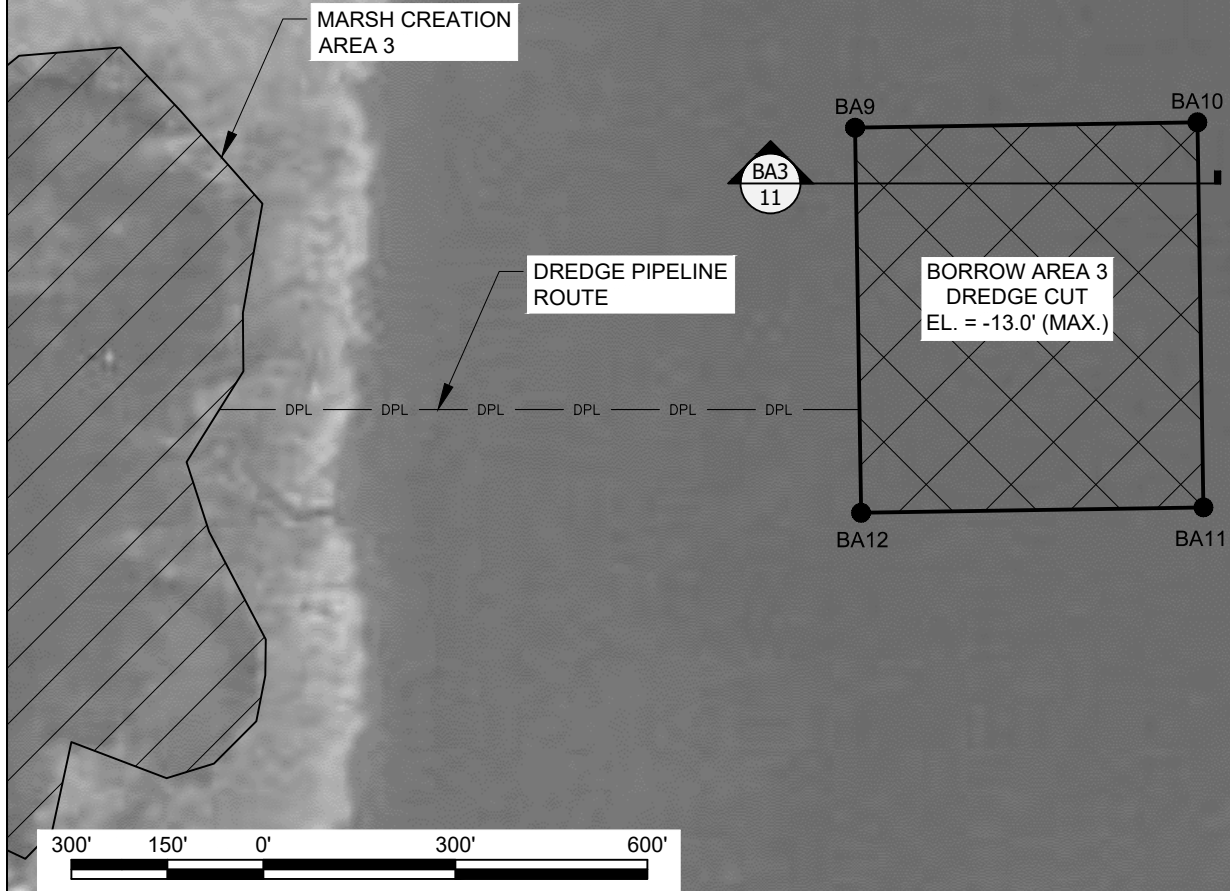
LEGEND	
	MARSH CREATION AREA
	BORROW AREA
	DREDGE PIPELINE ROUTE

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA. 70802	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION & MARSH CREATION	BORROW AREA 2 LAYOUT
		STATE PROJECT NUMBER: PO-0169	DATE: MARCH 2019
DRAWN BY: SHANE FAUST	DESIGNED BY: GREG MATTSO, P.E. - PE.0042397	APPROVED BY: JASKARAN SINGH, P.E.	SHEET 4 OF 16

BORROW AREA 3 BOUNDARY COORDINATES		
POINT	LAT	LONG
BA9	30° 07' 45.23"	89° 45' 22.68"
BA10	30° 07' 45.24"	89° 45' 16.58"
BA11	30° 07' 39.28"	89° 45' 16.57"
BA12	30° 07' 39.27"	89° 45' 22.66"

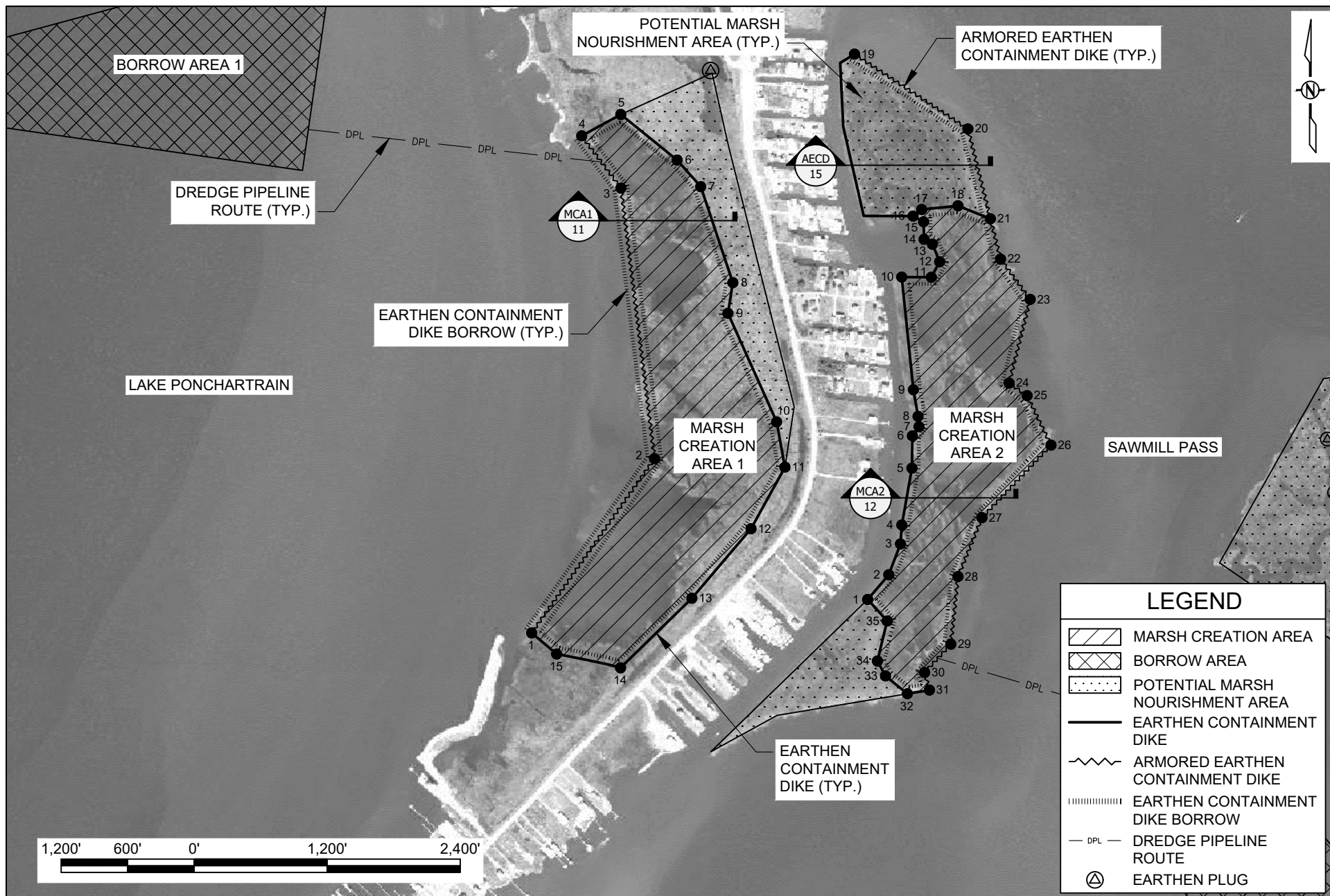


LAKE ST. CATHERINE

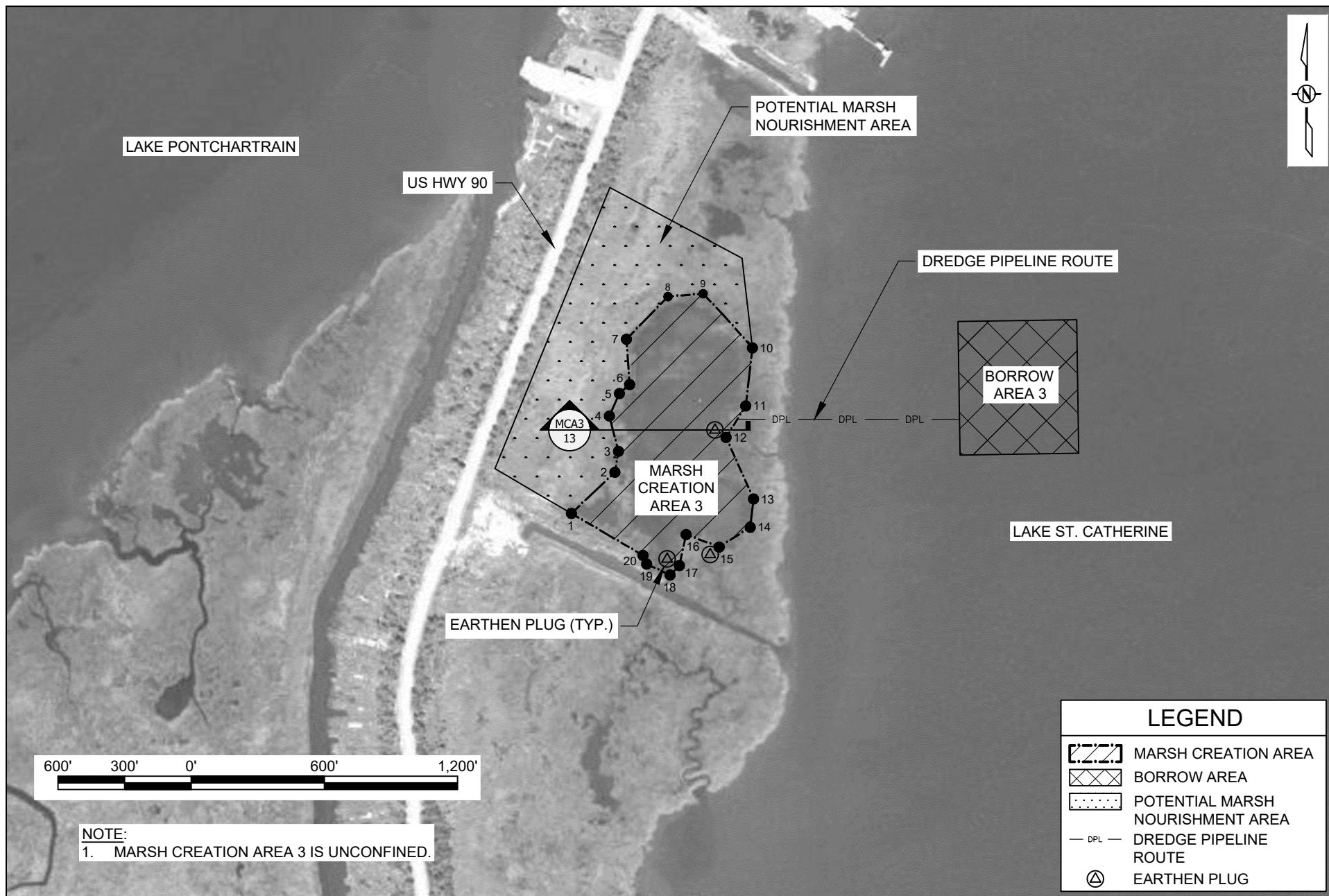


LEGEND	
	MARSH CREATION AREA
	BORROW AREA
	DREDGE PIPELINE ROUTE

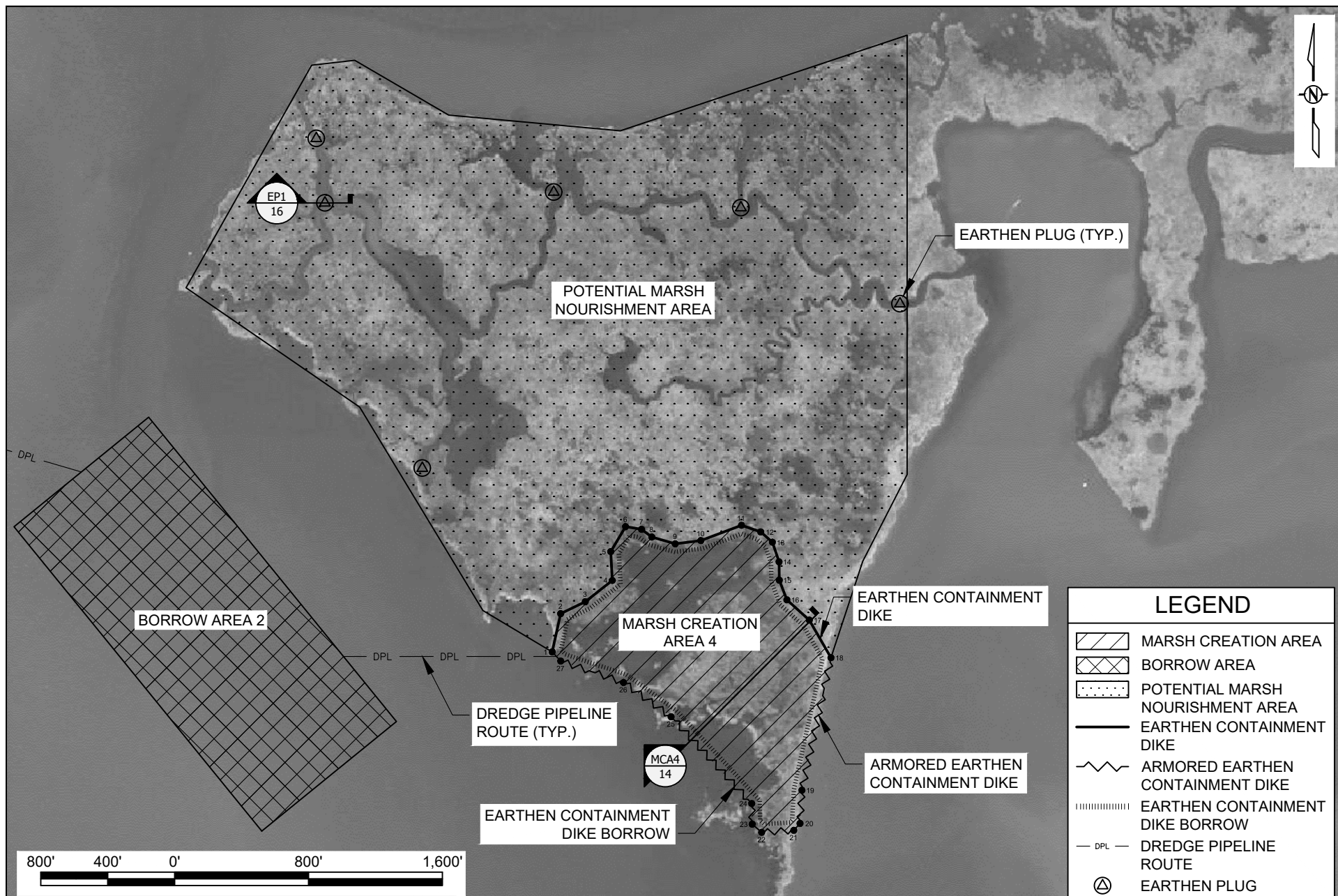
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA. 70802	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION & MARSH CREATION	BORROW AREA 3 LAYOUT
		STATE PROJECT NUMBER: PO-0169	DATE: MARCH 2019
DRAWN BY: SHANE FAUST	DESIGNED BY: GREG MATTSON, P.E. - PE.0042397	APPROVED BY: JASKARAN SINGH, P.E.	SHEET 5 OF 16



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA 70802	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION	MARSH CREATION AREAS 1 & 2 LAYOUT
DRAWN BY: SHANE FAUST	DESIGNED BY: GREG MATTSON, P.E. - 0042397	STATE PROJECT NUMBER: PO-0169 APPROVED BY: JASKARAN SINGH, P.E.	DATE: MARCH 2019 SHEET 6 OF 16



APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA 70802	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION	MARSH CREATION AREA 3 LAYOUT
		STATE PROJECT NUMBER: PO-0169	DATE: MARCH 2019
DRAWN BY: SHANE FAUST	DESIGNED BY: GREG MATTSON, P.E. - 0042397	APPROVED BY: JASKARAN SINGH, P.E.	SHEET 7 OF 16



LEGEND	
	MARSH CREATION AREA
	BORROW AREA
	POTENTIAL MARSH NOURISHMENT AREA
	EARTHEN CONTAINMENT DIKE
	ARMORED EARTHEN CONTAINMENT DIKE
	EARTHEN CONTAINMENT DIKE BORROW
	DREDGE PIPELINE ROUTE
	EARTHEN PLUG

APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA 70802	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION	MARSH CREATION AREA 4 AND EARTHEN PLUG LAYOUT
		STATE PROJECT NUMBER: PO-0169	DATE: MARCH 2019
DRAWN BY: SHANE FAUST	DESIGNED BY: GREG MATTSON, P.E. - 0042397	APPROVED BY: JASKARAN SINGH, P.E.	SHEET 8 OF 16

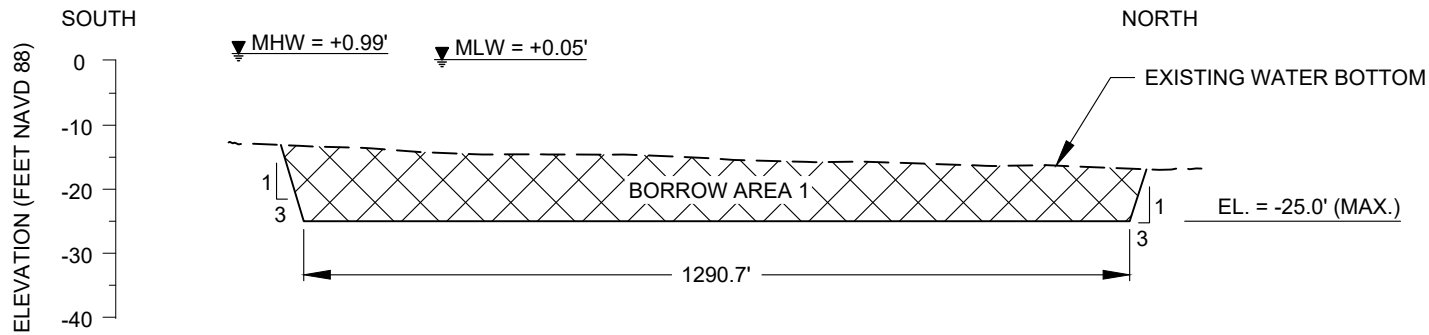
MCA 1 ECD CENTERLINE COORDINATES		
POINT	LONG.	LAT.
1	89° 44' 47.32"	30° 08' 58.23"
2	89° 44' 34.46"	30° 09' 13.64"
3	89° 44' 37.51"	30° 09' 37.83"
4	89° 44' 41.47"	30° 09' 42.54"
5	89° 44' 37.43"	30° 09' 44.40"
6	89° 44' 31.71"	30° 09' 40.27"
7	89° 44' 29.32"	30° 09' 37.26"
8	89° 44' 26.16"	30° 09' 29.25"
9	89° 44' 26.71"	30° 09' 26.52"
10	89° 44' 21.86"	30° 09' 16.77"
11	89° 44' 21.07"	30° 09' 12.71"
12	89° 44' 24.64"	30° 09' 07.26"
13	89° 44' 30.81"	30° 09' 01.12"
14	89° 44' 38.24"	30° 08' 55.01"
15	89° 44' 44.78"	30° 08' 56.32"

MCA 3 ECD CENTERLINE COORDINATES		
POINT	LONG.	LAT.
1	89° 45' 42.64"	30° 07' 36.91"
2	89° 45' 40.38"	30° 07' 38.71"
3	89° 45' 40.18"	30° 07' 39.65"
4	89° 45' 40.62"	30° 07' 41.23"
5	89° 45' 40.10"	30° 07' 42.22"
6	89° 45' 39.56"	30° 07' 42.62"
7	89° 45' 39.70"	30° 07' 44.64"
8	89° 45' 37.53"	30° 07' 46.52"
9	89° 45' 35.73"	30° 07' 46.62"
10	89° 45' 33.24"	30° 07' 44.18"
11	89° 45' 33.62"	30° 07' 41.59"
12	89° 45' 34.65"	30° 07' 40.20"
13	89° 45' 33.29"	30° 07' 37.44"
14	89° 45' 33.48"	30° 07' 36.18"
15	89° 45' 35.08"	30° 07' 35.31"
16	89° 45' 36.77"	30° 07' 35.89"
17	89° 45' 37.14"	30° 07' 34.51"
18	89° 45' 37.62"	30° 07' 34.10"
19	89° 45' 38.81"	30° 07' 34.60"
20	89° 45' 39.00"	30° 07' 34.99"

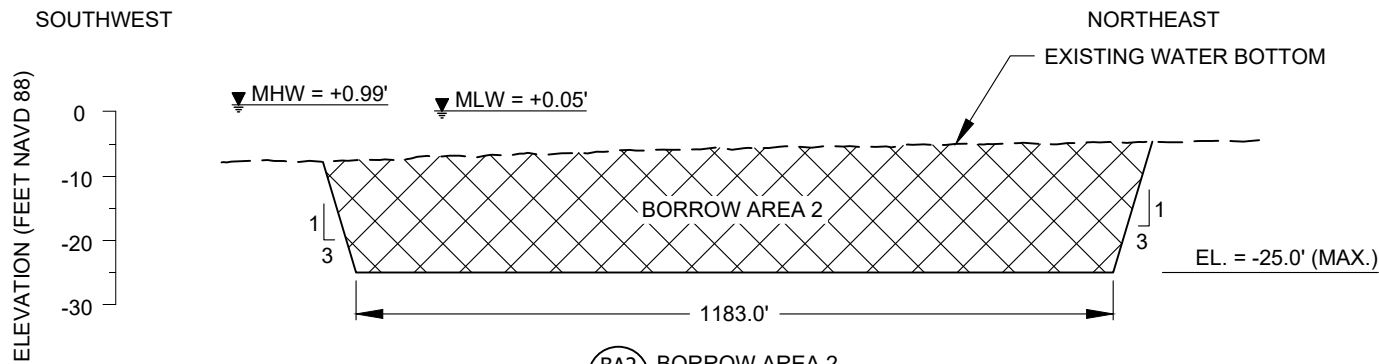
MCA2 ECD CENTERLINE COORDINATES					
POINT	LONG.	LAT.	POINT	LONG.	LAT.
1	89° 44' 12.76"	30° 09' 00.80"	19	89° 44' 13.34"	30° 09' 49.50"
2	89° 44' 10.56"	30° 09' 02.98"	20	89° 44' 01.79"	30° 09' 42.68"
3	89° 44' 09.31"	30° 09' 05.72"	21	89° 43' 59.61"	30° 09' 34.63"
4	89° 44' 09.15"	30° 09' 07.41"	22	89° 43' 58.63"	30° 09' 31.02"
5	89° 44' 08.03"	30° 09' 12.47"	23	89° 43' 55.64"	30° 09' 27.39"
6	89° 44' 07.94"	30° 09' 15.35"	24	89° 43' 57.92"	30° 09' 19.94"
7	89° 44' 07.24"	30° 09' 16.16"	25	89° 43' 56.10"	30° 09' 18.80"
8	89° 44' 07.33"	30° 09' 17.09"	26	89° 43' 53.71"	30° 09' 14.35"
9	89° 44' 07.77"	30° 09' 19.46"	27	89° 44' 00.91"	30° 09' 07.96"
10	89° 44' 08.80"	30° 09' 29.54"	28	89° 44' 03.45"	30° 09' 02.73"
11	89° 44' 05.77"	30° 09' 29.48"	29	89° 44' 04.28"	30° 08' 56.71"
12	89° 44' 04.89"	30° 09' 30.86"	30	89° 44' 07.01"	30° 08' 54.24"
13	89° 44' 05.60"	30° 09' 32.43"	31	89° 44' 06.55"	30° 08' 52.63"
14	89° 44' 06.45"	30° 09' 32.88"	32	89° 44' 08.82"	30° 08' 52.23"
15	89° 44' 06.48"	30° 09' 34.45"	33	89° 44' 11.04"	30° 08' 53.98"
16	89° 44' 07.55"	30° 09' 34.97"	34	89° 44' 11.85"	30° 08' 55.29"
17	89° 44' 06.66"	30° 09' 35.55"	35	89° 44' 10.79"	30° 08' 58.85"
18	89° 44' 02.93"	30° 09' 35.83"			

MCA 4 ECD CENTERLINE COORDINATES		
POINT	LONG.	LAT.
1	89° 43' 05.86"	30° 08' 36.32"
2	89° 43' 05.09"	30° 08' 39.14"
3	89° 43' 02.98"	30° 08' 40.00"
4	89° 43' 00.65"	30° 08' 41.54"
5	89° 43' 00.75"	30° 08' 43.68"
6	89° 42' 59.47"	30° 08' 45.51"
7	89° 42' 58.11"	30° 08' 45.30"
8	89° 42' 57.25"	30° 08' 44.71"
9	89° 42' 55.26"	30° 08' 44.19"
10	89° 42' 53.07"	30° 08' 44.40"
11	89° 42' 49.60"	30° 08' 45.49"
12	89° 42' 47.98"	30° 08' 44.98"
13	89° 42' 46.99"	30° 08' 44.21"
14	89° 42' 46.45"	30° 08' 42.75"
15	89° 42' 46.45"	30° 08' 41.39"
16	89° 42' 45.83"	30° 08' 39.93"
17	89° 42' 43.94"	30° 08' 38.41"
18	89° 42' 42.15"	30° 08' 35.60"
19	89° 42' 44.78"	30° 08' 25.83"
20	89° 42' 44.98"	30° 08' 23.38"
21	89° 42' 45.52"	30° 08' 22.88"
22	89° 42' 48.25"	30° 08' 22.77"
23	89° 42' 49.05"	30° 08' 23.38"
24	89° 42' 49.06"	30° 08' 24.91"
25	89° 42' 55.82"	30° 08' 31.41"
26	89° 42' 59.83"	30° 08' 33.99"
27	89° 43' 05.14"	30° 08' 35.64"

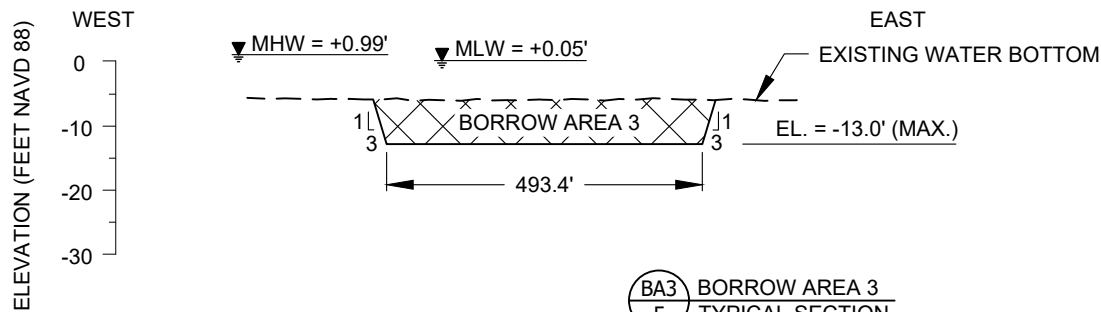
APPLICATION BY: COASTAL PROTECTION & RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LA 70802	COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION	MARSH CREATION CENTERLINE COORDINATES
		STATE PROJECT NUMBER: PO-0169	DATE: MARCH 2019
DRAWN BY: SHANE FAUST	DESIGNED BY: GREG MATTSON, P.E. - 0042397	APPROVED BY: JASKARAN SINGH, P.E.	SHEET 9 OF 16



BA1 BORROW AREA 1
3 TYPICAL SECTION





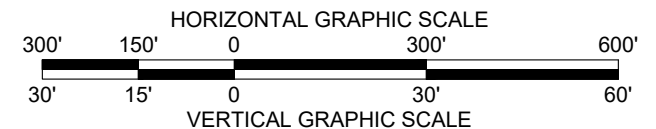
BA2 BORROW AREA 2
4 TYPICAL SECTION



BA3 BORROW AREA 3
5 TYPICAL SECTION

LEGEND

-  BORROW AREA
-  EXISTING WATER BOTTOM



APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LA 70802

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

NEW ORLEANS LANDBRIDGE SHORELINE
STABILIZATION & MARSH CREATION

BORROW AREA
TYPICAL SECTIONS

STATE PROJECT NUMBER: PO-0169

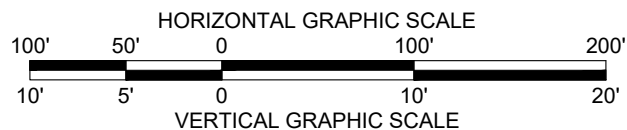
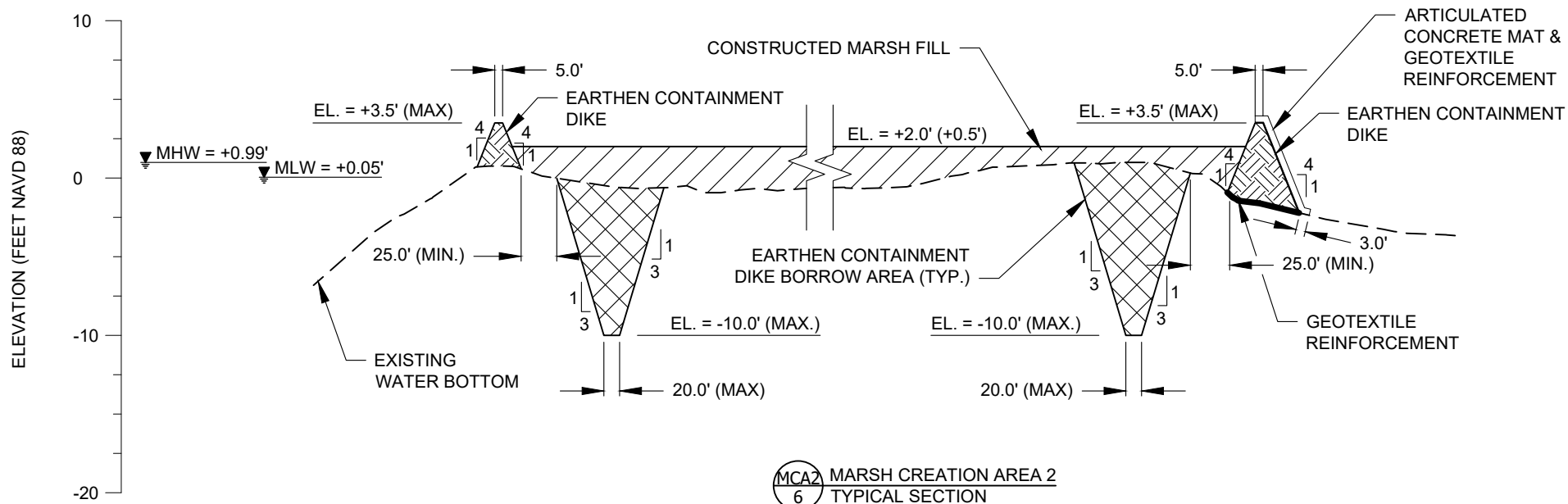
DATE: MARCH 2019

DRAWN BY: SHANE FAUST

DESIGNED BY: GREG MATTSON, P.E. - PE.0042397

APPROVED BY: JASKARAN SINGH, P.E.

SHEET 10 OF 16



LEGEND	
	CONSTRUCTED MARSH FILL
	EARTHEN CONTAINMENT DIKE
	EARTHEN CONTAINMENT DIKE BORROW AREA
	EXISTING WATER BOTTOM
	GEOTEXTILE REINFORCEMENT

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LA 70802

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

NEW ORLEANS LANDBRIDGE SHORELINE
STABILIZATION & MARSH CREATION

MARSH CREATION AREA 2
TYPICAL SECTION

STATE PROJECT NUMBER: PO-0169

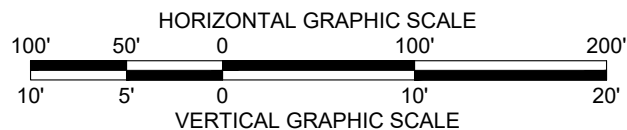
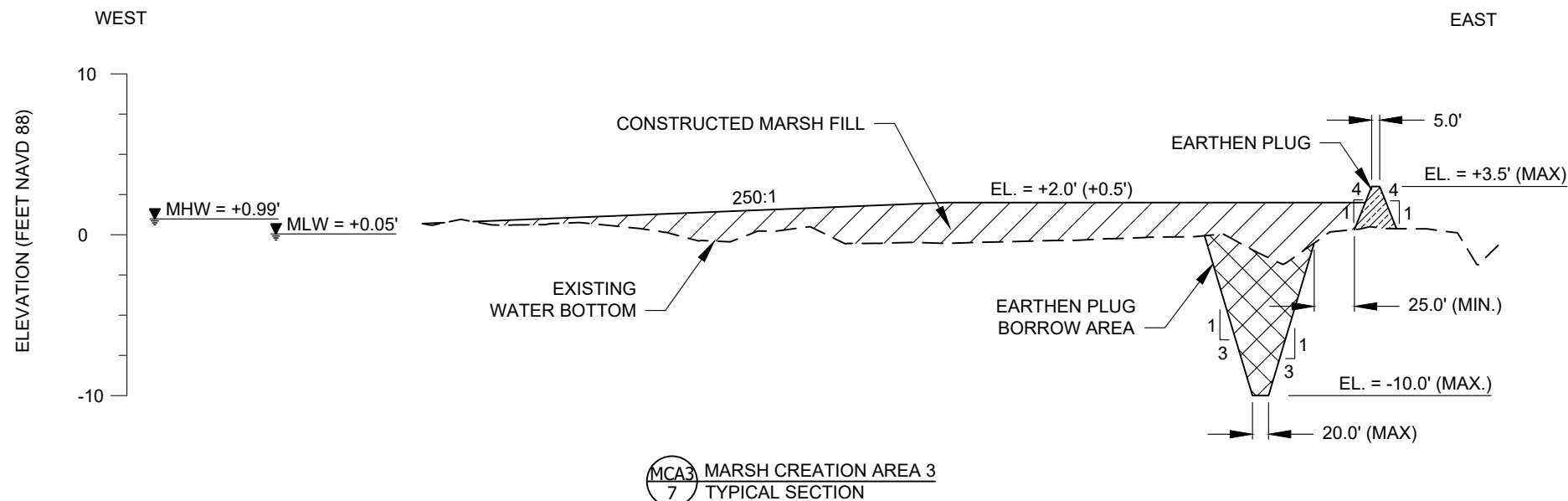
DATE: MARCH 2019

DRAWN BY: SHANE FAUST

DESIGNED BY: GREG MATTSON, P.E. - PE.0042397

APPROVED BY: JASKARAN SINGH, P.E.

SHEET 12 OF 16



LEGEND	
	CONSTRUCTED MARSH FILL
	EARTHEN PLUG
	EARTHEN PLUG BORROW AREA
	EXISTING WATER BOTTOM

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LA 70802

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

NEW ORLEANS LANDBRIDGE SHORELINE
STABILIZATION & MARSH CREATION

MARSH CREATION AREA 3
TYPICAL SECTION

STATE PROJECT NUMBER: PO-0169

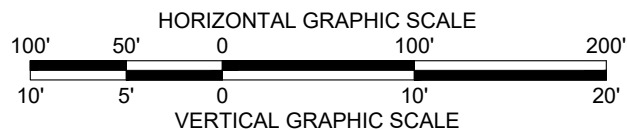
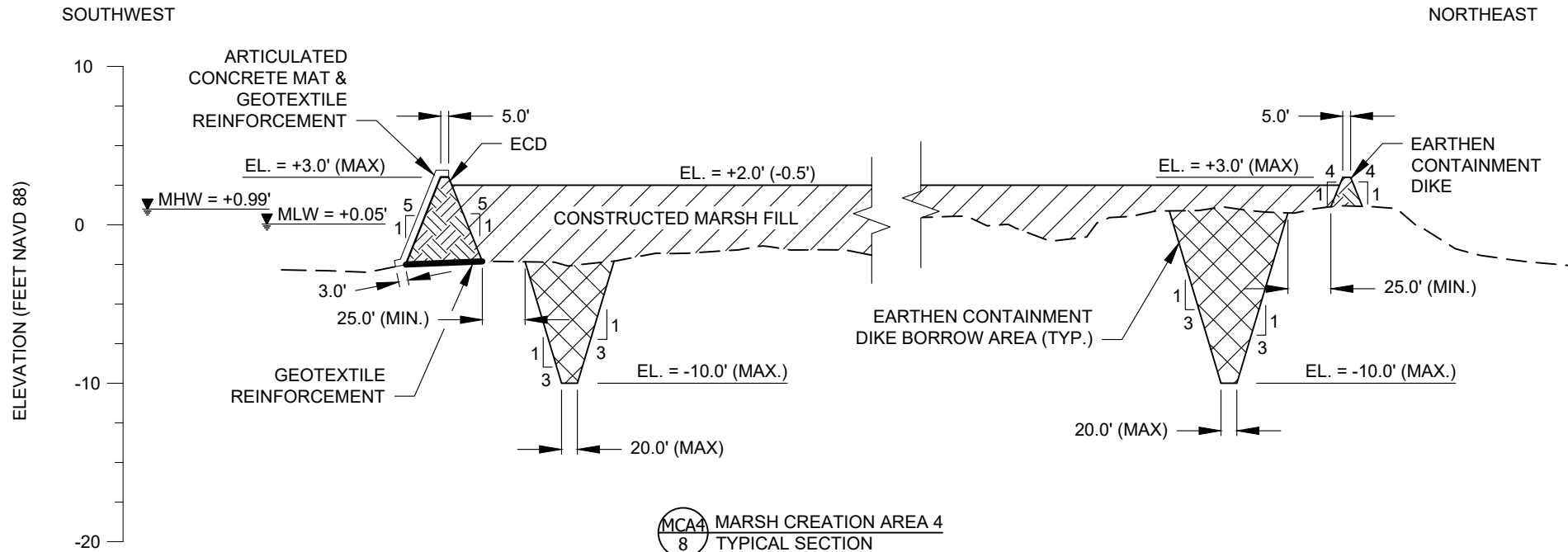
DATE: MARCH 2019

DRAWN BY: SHANE FAUST

DESIGNED BY: GREG MATTSON, P.E. - PE.0042397

APPROVED BY: JASKARAN SINGH, P.E.

SHEET 13 OF 16



LEGEND	
	CONSTRUCTED MARSH FILL
	EARTHEN CONTAINMENT DIKE
	EARTHEN CONTAINMENT DIKE BORROW AREA
	EXISTING WATER BOTTOM
	GEOTEXTILE REINFORCEMENT

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LA 70802

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

NEW ORLEANS LANDBRIDGE SHORELINE
STABILIZATION & MARSH CREATION

MARSH CREATION AREA 4
TYPICAL SECTION

STATE PROJECT NUMBER: PO-0169

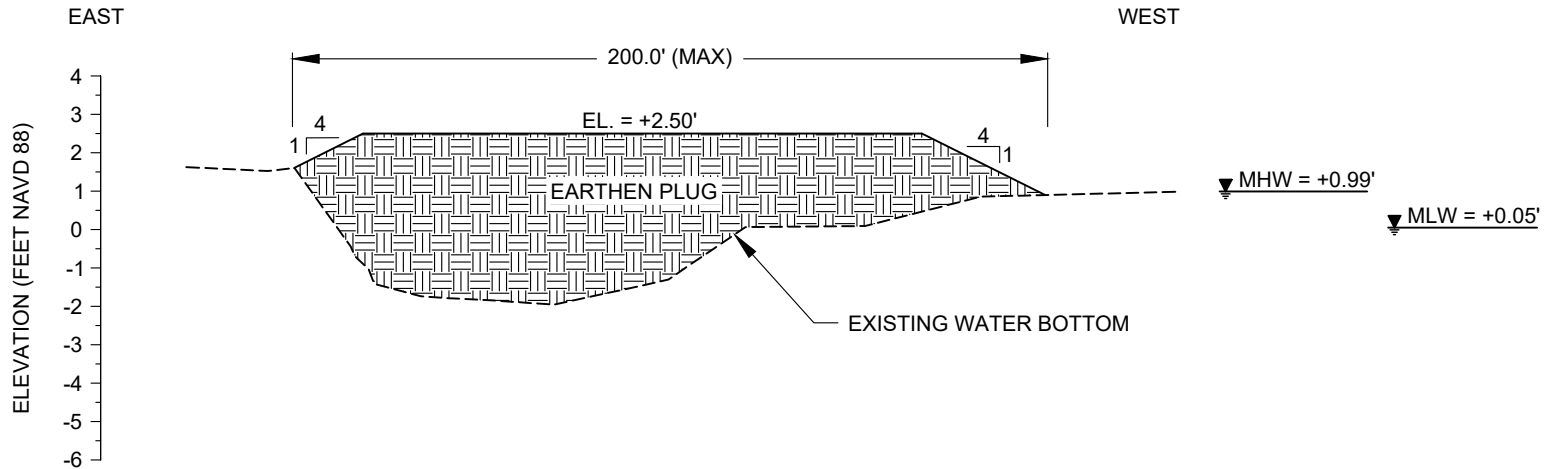
DATE: MARCH 2019

DRAWN BY: SHANE FAUST

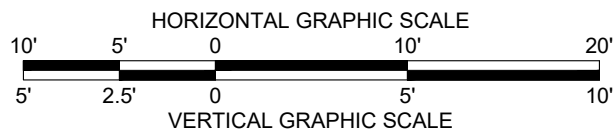
DESIGNED BY: GREG MATTSO, P.E. - PE.0042397



APPROVED BY: JASKARAN SINGH, P.E.

SHEET 14 OF 16



EP1
10 EARTHEN PLUG
TYPICAL SECTION



LEGEND	
	EARTHEN PLUG
	EXISTING WATER BOTTOM

APPLICATION BY:
COASTAL PROTECTION & RESTORATION AUTHORITY
150 TERRACE AVENUE
BATON ROUGE, LA 70802

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

NEW ORLEANS LANDBRIDGE SHORELINE
STABILIZATION & MARSH CREATION

EARTHEN PLUG
TYPICAL SECTION

STATE PROJECT NUMBER: PO-0169

DATE: MARCH 2019

DRAWN BY: SHANE FAUST

DESIGNED BY: GREG MATTSO, P.E. - PE.0042397

APPROVED BY: JASKARAN SINGH, P.E.

SHEET 16 OF 16

	A	B	C	D
1	ESTIMATED QUANTITIES			
2	Borrow Area	Volume (CY)	Area (Acres)	
3	MCBA 1	1,917,688	97	
4	MCBA 2	2,365,319	87	
5	MCBA 3	76,428	7	
6	TOTAL	4,359,435	191	
7	Marsh Creation Area	Volume (CY)	Area (Acres)	
8	MCA 1	556,550	110	
9	MCA 2	433,010	83	
10	MCA 3	94,910	15	
11	MCA 4	223,850	61	
12	TOTAL	1,308,320	269	
13	Marsh Nourishment	Volume (CY)	Area (Acres)	
14	MCA 1	N/A	29	
15	MCA 2	N/A	46	
16	MCA 3	N/A	16	
17	MCA 4	N/A	370	
18	TOTAL		461	
19	Earthen Containment Dike	Volume (CY)	Area (Acres)	Length (lf)
20	MCA 1	41,606	116	12,268
21	MCA 2	62,495	78	10,870
22	MCA 4	34,640	6	7,102
23	TOTAL	138,741	200	30,240
24	Articulated Concrete Mats Extending Past Toe	Area (Acres)	Length (lf)	
25	MCA 1	0.34	4,971	
26	MCA 2	0.48	6,961	
27	MCA 4	0.26	3,720	
28	TOTAL	1.08	15,652	
29	Earthen Containment Dike Borrow	Volume (CY)	Area (Acres)	
30	MCA 1	206,264	79	
31	MCA 1 (Alternate)	57,219	7	
32	MCA 2	220,665	53	
33	MCA 4	117,079	42	
34	TOTAL	601,227	181	
35	Earthen Plugs	Volume (CY)	Area (Acres)	
36	MCA 1	41	0.02	
37	MCA 2	123	0.05	
38	MCA 4	246	0.12	
39	TOTAL	410	0.19	
40	Earthen Plugs Borrow	Volume (CY)	Area (Acres)	
41	MCA 1	82	0.04	
42	MCA 2	246	0.01	
43	MCA 4	492	0.24	
44	TOTAL	820	0.29	
45				
46	Fill Volume		Fill Acreage	
47	B12,B23,B28,B39	1,447,472	C12,C18,C23,B28,C39	931
48	Borrow Volume		Borrow Acreage	
49	B6,B34,B44	4,961,482	C6,C34,C44	372

STANDARD MANATEE CONDITIONS FOR IN-WATER ACTIVITIES

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

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

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

1. Activities authorized under this general permit shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single and complete project shall be treated together as constituting one single and complete project. All planned phases of multi-phased projects shall be treated together as constituting one single and complete project. This general permit shall not be used for any activity that is part of an overall project for which an individual permit is required.
2. No activity is authorized under this general permit which may adversely affect significant cultural resources listed or eligible for listing in the National Register of Historic Places until the requirements for Section 106 of the National Historic Preservation Act are met. Upon discovery of the presence of previously unknown historic and/or prehistoric cultural resources, all work must cease and the permittee must notify the State Historic Preservation Office and the Corps of Engineers. The authorization is suspended until it is determined whether or not the activity will have an adverse effect on cultural resources. The authorization may be reactivated or modified through specific conditions if necessary, if it is determined that the activity will have no adverse effect on cultural resources. The PGP authorization will be revoked if it is determined that cultural resources would be adversely affected, and an individual permit may be necessary.
3. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein. The permittee will, at his or her expense, install and maintain any safety lights, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or on equipment used in performing work under the authorization.
4. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species which normally migrate through the area, unless the activity's primary purpose is to block or impound water.
5. If the **authorized** activity involves the installation of aerial transmission lines, submerged cable, or submerged pipelines across navigable waters of the United States the following is applicable:

The National Ocean Service (NOS) has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Your notification of completion must include a drawing which certifies the location and configuration of the completed activity (a certified permit drawing may be used). Notification to NOS will be sent to the following address: National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Spring, Maryland 20910-3282.

6. For pipelines under an anchorage or a designated fairway in the Gulf of Mexico the following is applicable: The NOS has been notified of this authorization. You must notify NOS and this office in writing, at least two weeks before you begin work and upon completion of the activity authorized by this permit. Within 30 days of completion of the pipeline, 'as built' drawings certified by a professional engineer registered in Louisiana or by a registered surveyor shall be furnished to this office, the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, and to the Director, National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Spring, Maryland 20910-3282. The plans must include the location, configuration and actual burial depth of the completed pipeline project.

7. If the **authorized** project, or future maintenance work, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your permit approval and drawings should be mailed to the Commander (dpw), Eighth Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, about 1 month before you plan to start work. Telephone inquiries can be directed to the Eighth Coast Guard District, Waterways Management at (504) 671-2107.

8. All activities authorized herein shall, if they involve, during their construction or operation, any discharge of pollutants into waters of the United States, be at all times consistent with applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards and management practices established pursuant to the Clean Water Act (PL 92-500:86 Stat 816), or pursuant to applicable state and local laws.

9. Substantive changes to the Louisiana Coastal Resources Program may require immediate suspension and revocation of this permit in accordance with 33 CFR 325.7.

10. Irrespective of whether a project meets the other conditions of this permit, the Corps of Engineers retains discretionary authority to require an individual Department of the Army permit when circumstances of the proposal warrant this requirement.

11. Any individual authorization granted under this permit may be modified, suspended, or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest.

12. The Corps of Engineers may suspend, modify, or revoke this general permit if it is found in the public interest to do so.

13. Activities proposed for authorization under the PGP must comply with all other necessary federal, state, and/or local permits, licenses, or approvals. Failure to do so would result in a violation of the terms and conditions of PGP.

14. The permittee shall permit the District Commander or his authorized representative(s) or designee(s) to make periodic inspections of the project site(s) and disposal site(s) if different from the project site(s) at any time deemed necessary in order to assure that the activity being performed under authority of this permit is in accordance with the terms and conditions prescribed herein.

15. This general permit does not convey any property rights, either in real estate or material, or any exclusive privileges; and it does not authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations nor does it obviate the requirements to obtain state or local assent required by law for the activity authorized herein.

16. In issuing authorizations under this permit, the federal government will rely upon information and data supplied by the applicant. If, subsequent to the issuance of an authorization, such information and data prove to be false, incomplete, or inaccurate, the authorization may be modified, suspended, or revoked, in whole or in part.

17. For activities resulting in sewage generation at the project site, such sewage shall be processed through a municipal sewage treatment system or, in areas where tie-in to a municipal system is not practical, the on-site sewerage system must be approved by the local parish sanitarian before construction.

18. Any modification, suspension, or revocation of the PGP, or any individual authorization granted under this permit, will not be the basis for any claim for damages against the United States.

19. Additional conditions deemed necessary to protect the public interest may be added to the general permit by the District Commander at any time. If additional conditions are added, the public will be advised by public notice. Individual authorizations under the PGP may include special conditions deemed necessary to ensure minimal impact and compliance with the PGP.

20. The PGP is subject to periodic formal review by MVN and OCM in coordination with the Environmental Protection Agency, US Fish and Wildlife Service, the National Marine Fisheries Service, and the Louisiana Department of Wildlife and Fisheries. Comments from reviewing agencies will be considered in determination as to whether modifications to the general permit are needed. Should the District Commander make a determination not to incorporate a change proposed by a reviewing agency, after normal negotiations between the respective agencies, the District Commander will explain in writing to the reviewing agency the basis and rationale for his decision.

21. CEMVN retains discretion to review the PGP, its terms, conditions, and processing procedures, and decide whether to modify, reissue, or revoke the permit. If the PGP is not modified or reissued within 5 years of its effective date, it automatically expires and becomes null and void.

22. 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.

23. 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 as described in Special Condition 25 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.

24. 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.

25. If you sell the property associated with this permit, you must provide this office with a copy of the permit and a letter noting your agreement to transfer the permit to the new owner and the new owner's agreement to accept the permit and abide by all conditions of the permit. This letter must be signed by both parties.

26. Many local governing bodies have instituted laws and/or ordinances in order to regulate dredge and/or fill activities in floodplains to assure maintenance of floodwater storage capacity and avoid disruption of drainage patterns that may affect surrounding properties. Your project involves dredging and/or placement of fill; therefore, you must contact the local municipal and/or parish governing body regarding potential impacts to floodplains and compliance of your proposed activities with local floodplain ordinances, regulations or permits.

27. In issuing authorizations under this permit, the federal government does not assume any liability for: damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; 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; damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit, and; design or construction deficiencies associated with the permitted work.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
<https://www.fisheries.noaa.gov/region/southeast>

F/SER31:DPO
SERO-2019-03306

Chief, Regulatory Branch
New Orleans District Corps of Engineers
Department of the Army
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Dear Mr. Mayer:

This letter responds to your request for consultation with us, the National Marine Fisheries Service (NMFS), pursuant to Section 7 of the Endangered Species Act (ESA) for the following action.

Permit Number(s)	Applicant(s)	SERO Number	Project Type(s)
MVN-2016-00651-EG	Louisiana Coastal Protection and Restoration Authority	SERO-2019-03306	Dredge and shoreline stabilizations

Consultation History

We received your letter requesting consultation on October 4, 2019. We requested additional information on December 10, 2019. We received a final response on December 13, 2019, and initiated consultation that day. The project has been assigned a tracking number in our new NMFS Environmental Consultation Organizer (ECO), SERO-2019-03306. Please refer to this number in any future inquiries regarding this project.

Project Locations

Address	Site	Latitude/Longitude	Water body
New Orleans, Orleans Parish, Louisiana	Borrow Area 1	30.1670278°N, 89.7564722°W (North American Datum 1983)	Lake Pontchartrain
	Borrow Area 2	30.1418611°N, 89.7263333°W (North American Datum 1983)	Lake St. Catherine
	Borrow Area 3	30.1278889°N, 89.7550556°W (North American Datum 1983)	Lake St. Catherine
	Marsh Creation Area 1	30.155308°N, 89.740947°W (North American Datum 1983)	Lake Pontchartrain
	Marsh Creation Area 2	30.153258°N, 89.734535°W (North American Datum 1983)	Lake St. Catherine
	Marsh Creation Area 3	30.127742°N, 89.760240°W (North American Datum 1983)	Lake St. Catherine
	Marsh Creation Area 4	30.145020°N, 89.760240°W (North American Datum 1983)	Lake St. Catherine





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc





Image of the project location and surrounding area, including the proposed dredge borrow areas (BA 1-3, yellow) and proposed marsh creation areas (MCA 1-4, green) (©2019 Google)

Existing Site Conditions

The project area is comprised of 4 primary marsh creation cells and 3 dredging borrow areas that are located in the Lake Pontchartrain Basin in Orleans Parish, Louisiana. One cell is located along the eastern shore of Lake Pontchartrain while the other 3 cells are located along the western and northern shores of Lake St. Catherine. Lake Pontchartrain has an average salinity of 4 parts per thousand (ppt) and the project area has an average salinity of 3.5 ppt. Lake St. Catherine is a shallow lake associated with the landbridge that averages 5 feet (ft) to 6 ft deep. Lake St. Catherine is connected to The Rigolets by Sawmill Pass. Bottom sediments in Sawmill Pass are primarily silt while bottom sediments in Lake St. Catherine are composed of silt and sand. The marsh creation areas sites generally include some broken marsh and are relatively well contained by surrounding marsh. The existing depth in the proposed borrow areas range from approximately 10 – 14 ft.

Prior to delineating the proposed dredging borrow areas, a sand survey was conducted to determine the sand content within the upper 3 inches of the proposed borrow material. Borrow Area 1 was positioned along the southern edge of the sand sampling survey area avoiding areas of higher sand content. The other two borrow areas did not contain considerable areas of sand content. Geotechnical investigations were also conducted on the proposed borrow sites and the four marsh creation areas. Laboratory analysis performed on the soil samples included; soil

compressive strength tests, moisture content tests, organic content tests, grain size determinations, specific gravity tests, consolidation tests with rebound, Atterberg's limit determinations, soil classifications, settling column tests and self-weight consolidation tests. The results are on file with the Louisiana Ecological Services Office (LESO). There are no known contaminants within the proposed borrow sites.

A submerged aquatic vegetation (SAV) survey of the proposed borrow areas within Lake St. Catherine was conducted on August 10, 2015. While traces of common SAV species *Ruppia maritima*, *Vallisneria americana*, and *Myriophyllum spicatum* were found, no significant amount of SAV was documented.

Project Description

The proposed action will create and/or nourish up to 355 acres (ac) of marsh habitat in areas of degraded marsh and open water along the shoreline of Lake Pontchartrain and Lake St. Catherine. The proposed marsh creation/nourishment will be achieved by a one-time mining of sediment from 3 borrow sites located in eastern Lake Pontchartrain and northern Lake St. Catherine. The footprint of the project will cover up to approximately 191 ac of Lake Pontchartrain and Lake St. Catherine water bottoms and may impact the benthic habitat in waters up to approximately 25-ft deep.

The borrow areas are designed to provide 2,994,524 cubic yards (yd³) of material. However, it is estimated that the project will require 1,139,758 yd³ (38%) of the available fill material. Depending on the means and methods that the contractor implements, portions of the borrow areas will not be used. Borrow sites were positioned to avoid areas with sand concentrations greater than 75% in order to decrease potential impacts on potential sturgeon prey species. Borrow Area 1 and Borrow Area 2 tie into existing tidal passes to promote flushing and will be dredged to 25 ft below the water surface. The borrow areas will also be divided into a primary dredging area (areas with contours greater-than or equal-to minus 10-ft) and secondary dredging area (areas with contours less than minus 10 ft).

Dredged slurry will be placed to a constructed fill elevation above the functional brackish marsh range and settle into the functional range over the 20-year design life. The marsh creation areas will initially be pumped with dredge fill material and rock to an elevation of +2.0 feet North American Vertical Datum of 1988. The material will be held in place by an approximate 3.5-ft containment levee, with the goal of targeting an elevation that will be flooded between 10% and 65% of the year.

The project has been designed so that the effluent from the dredging operation will be contained within the interior marsh and the dredged slurry would not flow directly into Lake Pontchartrain, Lake St. Catherine or bayous. The marsh creation sites are also designed so that they will de-water into the adjacent marsh (i.e., marsh nourishment). The project will be performed utilizing a cutterhead pipeline dredge. The proposed construction is estimated to last approximately 260 days, including contingency and weather days.

Construction Conditions

To further reduce the risk of entrainment during dredging, the applicant has stated the following protective measures are incorporated into the proposed project plans:

- The cutter/suction head shall remain completely buried in the bottom material during dredging operations.
- If pumping water through the cutter/suction head is necessary to dislodge material, clean pumps or cutter/suction head, etc., the pumping rate shall be slowed to the lowest rate possible until the cutter/suction head is at mid-depth, where the pumping rate can then be increased. Pumping rates shall be reduced to the slowest speed feasible during the cutter/suction head's return to the water bottom. Any areas that contain 75% sand or greater would be avoided.

The applicant has also agreed to adhere to NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions*.¹

Effects Determination(s) for Species the Action Agency or NMFS Believes May Be Affected by the Proposed Action

Species	ESA Listing Status ²	Action Agency Effect Determination	NMFS Effect Determination
Sea Turtles			
Green (South Atlantic [SA] DPS)	T	NLAA	NLAA
Kemp's ridley	E	NLAA	NLAA
Loggerhead (Northwest Atlantic [NWA] DPS)	T	NLAA	NLAA
Fish			
Gulf sturgeon (Atlantic sturgeon, Gulf subspecies)	T	NLAA	NLAA

Critical Habitat

The project is located in Gulf sturgeon critical habitat Unit 8 (Lake Pontchartrain/Mississippi Sound). The following essential features/primary constituent elements (PCEs) are present in Unit 8: (1) abundant prey items within estuarine and marine habitats and substrates for juvenile, subadult, and adult life stages; (2) water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; (3) sediment quality, including texture and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and (4) safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats. We believe PCEs 1, 2, and 3 may be affected by the proposed action.

Analysis of Potential Routes of Effects to Species

Effects to sea turtles and Gulf sturgeon include the potential for injury from equipment. These effects are extremely unlikely to occur because these species are highly mobile and are likely to move away from the project site if disturbed. NMFS has previously determined in dredging

¹ NMFS. 2006. Sea Turtle and Smalltooth Sawfish Construction Conditions revised March 23, 2006. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division, Saint Petersburg, Florida. <https://www.fisheries.noaa.gov/webdam/download/92937961>

² E = endangered; T = threatened; NLAA = may affect, not likely to adversely affect; NE = no effect

biological opinions that, while oceangoing hopper-type dredges may lethally entrain protected species, non-hopper type dredging methods are slower and extremely unlikely to affect highly mobile species. The applicants' implementation of *NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions* will further reduce the risk for sea turtles by requiring all construction workers to watch for these species. Operation of any mechanical construction equipment will cease immediately if a sea turtle is seen within a 50-ft radius of the equipment. Activities will not resume until the animal has departed the project area of its own volition.

During the proposed action, sea turtles and Gulf sturgeon may be unable to use the project site due to the avoidance of dredging and placement activities and related noise. We believe the effect to these species from the inability to access habitat will be insignificant given the dredging portion of the project will be temporary (the construction project will last an estimated 260 days) and small in scale relative to the surrounding available open-water habitat. Further, because the project area does not block any migration pathway opening, Gulf sturgeon will be able to move around the dredging and placement area footprints during the proposed action.

The placement of material will be used to create 355 ac of marsh habitat over 4 locations. We believe the effect to sea turtles from the permanent loss of habitat due to the placement of dredged material will be insignificant given the proposed action's small area of impact relative to the surrounding area. We also believe the effect to Gulf sturgeon from the potential permanent loss of foraging habitat due to the placement of dredged material will be insignificant. Material placed below mean high water will be in water depths less than 3.5 ft. While Gulf sturgeon forage in very shallow waters, normal foraging depths are usually deeper than 5 ft. Further, Gulf sturgeon are opportunistic feeders that forage over large areas and will be able to locate prey beyond the placement footprints in otherwise open water.

Analysis of Potential Routes of Effect to Critical Habitat

Dredging may remove substrates containing Gulf sturgeon prey items. We believe the effect to the Gulf sturgeon critical habitat PCE for abundant prey species (PCE 1) from dredging will be insignificant since the estimated impact is relatively small compared to the surrounding area available (191 ac) and prey items will still be present in the areas outside the dredging footprint. The applicant's plan to avoid dredging substrates with more than 75% sand composition will also decrease the impacts to potential prey items found in the dredging area. We believe that the placement of material to create new marsh habitat may cover and bury bottom substrates containing Gulf Sturgeon prey species. We believe the effect to PCE 1 from the placement of material to create marsh habitat will be insignificant because the estimated area of impact is relatively small (up to 355 ac) compared to the surrounding area available in Lake Pontchartrain and Lake St. Catherine. The loss of prey species within the placement sites will not appreciably decrease the overall amount of prey available within Gulf sturgeon critical habitat. That is, any decrease in numbers of prey species would be minimal in relation to their numbers across the entire critical habitat unit. Further, during foraging periods, Gulf sturgeon generally occupy nearshore areas between 6.5-13 ft (2-4 m) of depth characterized by low-relief sand substrate, which is deeper than the proposed action.

Dredging and the placement of material to create marsh habitat may generate turbidity that could cause localized and temporary reductions in water quality. We believe the effect to the Gulf sturgeon critical habitat PCE for water quality (PCE 2) from increased turbidity will be

insignificant. The action area contains naturally turbid water and the placement of dredged material will not notably decrease the water quality in the area. We believe the effect to the Gulf sturgeon critical habitat PCE for water quality (PCE 2) from decreased dissolved oxygen will be insignificant. The proposed borrow areas have been designed to tie into existing tidal passes in order to increase tidal flushing and decrease the instances of lower dissolved oxygen levels as a result of the dredged sediment depths and water stratification conditions. Effects to temperature, salinity, pH, hardness, and other chemical characteristics of PCE 2 are not expected to result from dredging activities. Therefore, there is no anticipated effect to these aspects of PCE 2 from localized and temporary turbidity due to the dredging and placement of dredged material.

Dredging may affect sediment quality. We believe the effect to the Gulf sturgeon critical habitat PCE for sediment quality (PCE 3) from maintenance dredging will be insignificant. The composition of materials that will be dredged from the project area are likely to be the same as those remaining in the dredge footprint; therefore, no permanent alteration of habitat composition will occur. The placement of dredged material to create marsh habitat may cover and bury nearshore bottom substrates and affect sediment quality. We believe the effect to PCE 3 from the placement of dredged material to create marsh habitat will be insignificant. The estimated area of impact is relatively small (355 ac) compared to the surrounding area available in Lake Pontchartrain and Lake Catherine. Sediments surrounding the placement sites will continue to support Gulf sturgeon prey species and allow for foraging and other life functions. Further, not all of the habitat lost to the creation of new marsh habitat has the sediment quality needed to support Gulf sturgeon prey or serve as preferred foraging habitat. During foraging periods, Gulf sturgeon generally occupy nearshore areas between 6.5-13 ft (2-4 m) of depth characterized by low-relief sand substrate (Fox et al. 2002), which is deeper than the proposed action.

Conclusion

Because all potential project effects to listed species and critical habitat were found to be discountable or insignificant we conclude that the proposed action is not likely to adversely affect listed species and critical habitat under NMFS's purview. This concludes your consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action. NMFS's findings on the project's potential effects are based on the project description in this response. Any changes to the proposed action may negate the findings of this consultation and may require reinitiation of consultation with NMFS.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on October 28, 2019 [84 FR 44976]. This consultation was pending at that time, and we are applying the updated regulations to the consultation. As the preamble to the final rule adopting the regulations noted, "[t]his final rule does not lower or raise the bar on Section 7 consultations, and it does not alter what is required or analyzed during a consultation. Instead, it improves clarity and consistency, streamlines consultations, and codifies existing practice." We have reviewed the information and analyses relied upon to complete this letter of concurrence in light of the updated regulations and conclude the letter is fully consistent with the updated regulations.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Daniel Owen, Consultation Biologist, at (727) 209-5961, or by email at daniel.owen@noaa.gov.

Sincerely,

David Bernhart
Assistant Regional Administrator
for Protected Resources

File: 1514-22.f.7

JOHN BEL EDWARDS
GOVERNOR



THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL MANAGEMENT

March 1, 2021

Sydney Dobson
Louisiana Coastal Protection and Restoration Authority
150 Terrace Ave
Baton Rouge, LA, 70802
Via e-mail: Sydney.Dobson@la.gov

RE: **C20190070 mod 1**, Coastal Zone Consistency
Louisiana Coastal Protection and Restoration Authority
Federal License or Permit
New Orleans land bridge marsh creation project, PO-0169 mod 1: exterior containment
dredging for marsh creation areas 1, 2, 3. Marsh nourishment in MCA2 to marsh creation.
Orleans Parish

Dear Sydney Dobson:

The above referenced project has been reviewed by this Office and has been found to be consistent with the Louisiana Coastal Resources Program as required by Section 307(c) (3) (B) of the Coastal Zone Management Act of 1972 as amended.

If you have any questions concerning this determination, please contact Mark Hogan of the Consistency Section at (225) 219-9530 or Mark.Hogan@la.gov.

Sincerely yours,

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

CR/SK/mfh

cc: Darrell Barbara, USACE
Dave Butler, LDWF
Robert Williamson, DNR

Post Office Box 44487 • Baton Rouge, Louisiana 70804-4487
617 North Third Street • 10th Floor • Suite 1078 • Baton Rouge, Louisiana 70802
(225) 342-7591 • Fax (225) 342-6760 • <http://www.dnr.louisiana.gov>
An Equal Opportunity Employer

APPENDIX G: DIRECTIONS TO BOAT LAUNCH

APPENDIX G: DIRECTIONS TO BOAT LAUNCH

From Slidell, LA:

Slidell

Louisiana

↑

Head east on Bouscaren St toward 3rd St/Sergeant Alfred Dr/Sgt Alfred St

223 ft

↘

Turn right onto 3rd St/Sergeant Alfred Dr/Sgt Alfred St

0.7 mi

↶

Turn left onto Slidell Ave

0.2 mi

↶

Turn left onto LA-433 S/Old Spanish Trail

Pass by Wendy's (on the right in 1.6 mi)

7.7 mi

↘

Turn right onto US-90 W

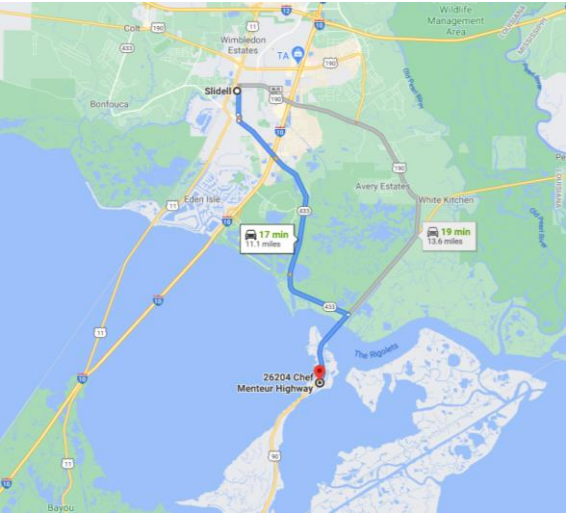
Destination will be on the left

2.4 mi

26204 Chef Menteur Hwy

New Orleans, LA 70129

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



From New Orleans, LA:

New Orleans

Louisiana

↑

Head north on Carondelet St toward Union St

0.1 mi

↶

Turn left onto Common St

0.3 mi

↑

Continue onto Tulane Ave

0.3 mi

🚶

Use the right lane to take the Interstate 10 E ramp to Slidell

0.3 mi

🚶

Merge onto I-10 E

5.3 mi

↘

Take exit 240B for US-90 E/Chef Hwy

0.3 mi

🚶

Merge onto US-90 E

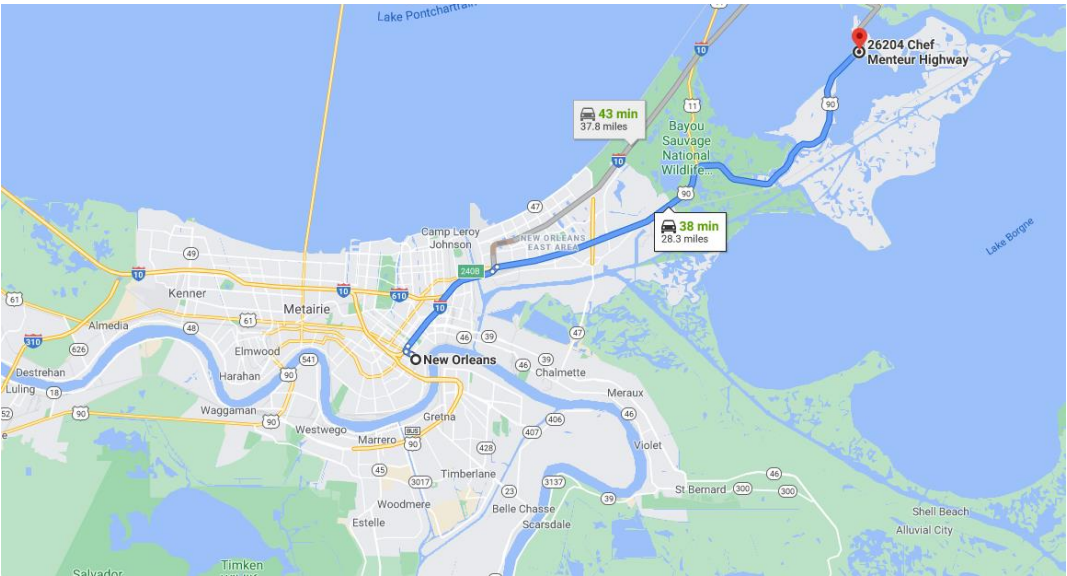
Destination will be on the right

21.8 mi

26204 Chef Menteur Hwy

New Orleans, LA 70129

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



APPENDIX H: SURVEY MONUMENT DATA



VICINITY MAP

Station Name: “CRMS PO SM 25”

Monument Location: The station is located in St. Tammany Parish, 7.3 miles southeast of Slidell, LA, 7.9 miles southwest of Pearlinton, MS, and 23.4 miles south of Picayune, MS. To reach the station from the intersection of HWY 90 and HWY 433, travel northeast for 1.0 miles along HWY 90 to the station on the right side of the road.

Monument Description: The monument is a stainless steel rod set in a PVC pipe with an aluminum flange stamped “PO-SM-25”, located 35 feet east-southeast of the centerline of HWY 90, 50 feet south of the southerly most black stripe painted in the east bound lane, and 68 feet west of a rusted “No Trespassing” sign.

Date: July 27, 2016

Monument Surveyed By:
Chustz Surveying, LLC

Surveyed NAD 83 Geodetic Position*

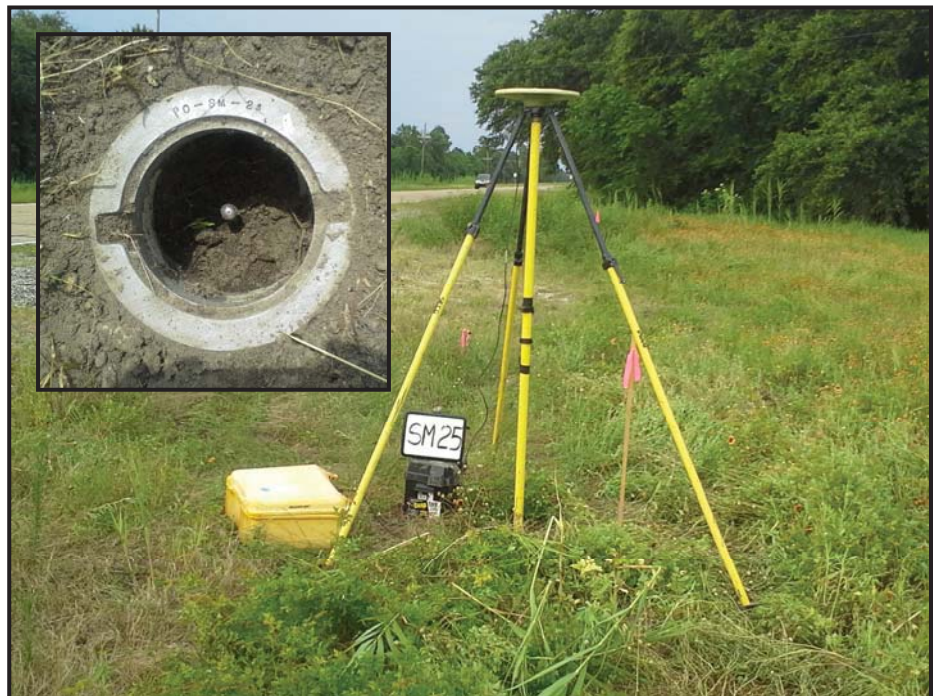
Lat. 30 11 23.72430 N
Long. 89 42 51.99361 W

Surveyed Grid Position (LSZ 1702 ft) *

N: 618,174.14
E: 3,792,271.06

Surveyed Elevation (ft) *

NAVD 88 (Geoid 12B)
Elev. = 6.34



* The position and elevation referenced above were supplied by CPRA for this survey. The static GPS survey confirmed this information.

APPENDIX I: GEOTECHNICAL INFORMATION

The items are accessible via the below hyperlink; please paste the following link into web browser:

ftp://ftp.coastal.la.gov/PO-0169/PO-0169_FINAL_BID_PACKAGE/3_Appendices/Appendix_I.zip

APPENDIX J: DESIGN SURVEY INFORMATION

The items are accessible via the below hyperlink; please paste the following link into web browser:

ftp://ftp.coastal.la.gov/PO-0169/PO-0169_FINAL_BID_PACKAGE/3_Appendices/Appendix_J.zip

APPENDIX K: HYDRAULIC DREDGE DATA SHEET

HYDRAULIC DREDGE DATA SHEET

NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION PROJECT (PO-0169)

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 L: EQUIPMENT DATA SHEET

EQUIPMENT DATA SHEET

NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION AND MARSH CREATION PROJECT (PO-0169)

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 M: DAILY PROGRESS REPORT FORM

DAILY PROGRESS REPORT No. _____ By _____ (Contractor) Date: _____
New Orleans Shoreline Stabilization and Marsh Creation Project (PO-169)

Report Certification

Contractor Representative: _____ CPRA Project Representative: _____

Weather

Conditions: _____	Cloudy / Clear / Fog / Windy _____	Tide Range (ft NAVD88) _____	Low: _____ High: _____
Precipitation: _____	in. _____	Seas: _____	Calm / Light Chop / Rough _____
Wind Speed / Direction: _____	mph _____	Temperature: _____	°F _____

Safety

Safety Incidents: _____ Safety Meeting Topic: _____

Active Field Orders / Change Orders / Claims / Requests for Information / Payment Requests / Acceptance Requests

FO / CO / Claim / RFI / PR / AR _____	No.: _____	Status: _____
FO / CO / Claim / RFI / PR / AR _____	No.: _____	Status: _____
FO / CO / Claim / RFI / PR / AR _____	No.: _____	Status: _____

Equipment

Status of Aids to Navigation: _____	Mechanical Dredge(s) Utilized: _____
Booster Pump Utilized: _____	Hydraulic Dredge(s) Utilized: _____
Additional Equipment Utilized: _____	

Notifications to the Engineer

Preconstruction Survey Start - Complete: _____ -	Process Survey Start - Complete: _____ -
As-built Survey Start - Complete: _____ -	Notice to Mariners: _____
Permit Violation: _____	Recordable Injury / Spill: _____
Endangered Species or Cultural Resource: _____	Dike Failure / Breach: _____ No / Yes Sta: _____
Louisiana One-Call: _____	Grade Stake Damaged/Repaired: _____ No (s): _____
Landowner/Utility Contacted: _____	Settlement Plate Damaged/Repaired: _____ No (s): _____
Signed Mill Certificate of NWGF: _____	Inst. Settlement Plate Dmg./Rprd.: _____ No (s): _____
Signed Chain of Custody of ACM: _____	Other Issues: _____

Construction

Equipment Access Corridors and Dredge Pipe Corridors

P.Cnst. Mag/Bathy/Topo Srv. Performed?	No / Yes	D. Pipe Routine Check Survey Perf.?	No / Yes
Dredging Occurring Today?	No / Yes	Leaks Detected?	No / Yes
Arbitrary Demob. Survey Performed?	No / Yes	Leak/Elevated Area Survey Perf.?	No / Yes
Additional Issues Observed:			

DAILY PROGRESS REPORT No. _____ By _____ (Contractor) Date: _____
New Orleans Shoreline Stabilization and Marsh Creation Project (PO-169)

Marsh Creation Area 1

ECD Type I Constructed Today:	Sta Start - End: -	ECD Type I Constructed to Date:	Sta Start - End: -
ECD Type II Constructed Today:	Sta Start - End: -	ECD Type II Constructed to Date:	Sta Start - End: -
ECD Quantity Today:	LF	ECD Quantity to Date:	LF
Marsh Fill Quantity Today:	CY	Marsh Fill Quantity to Date:	CY
Woven Geotextile Fabric Qty. Today:	SY	Woven Geotextile Fabric Qty. to Date:	SY
Non-Woven Geotextile Fabric Qty. Today:	SY	Non-Woven Gtxl. Fabric Qty. to Date:	SY
Articulated Concrete Mats Qty. Today:	SY	Articulated Cnrt. Mats Qty. to Date:	SY
Grade Stakes Today:	No(s) Installed / Removed:	Grade Stakes to Date:	No(s) Installed / Removed:
Settlement Plates Today:	No(s) Installed:	Settlement Plates to Date:	No(s) Installed:
Instrumented Sett. Plates Today:	No(s) Installed:	Instrumented. Sett. Plates to Date:	No(s) Installed:
Internal Training Dikes Used Today:	Sta Start - End: -	Dewatering Structure:	Installed (Closed or Open) / Removed
Dikes Gapped Today:	Sta Start - End: -	Earthen Plug Currently in Use?	No / Yes
Any Turbidity Issues or Sedimentation Detected in Nearby Channels and/or Adjacent Areas?	No / Yes		
If So, Please Describe:			

Marsh Creation Area 2

ECD Type III Constructed Today:	Sta Start - End: -	ECD Type III Constructed to Date:	Sta Start - End: -
ECD Type IV Constructed Today:	Sta Start - End: -	ECD Type IV Constructed to Date:	Sta Start - End: -
ECD Quantity Today:	LF	ECD Quantity to Date:	LF
Marsh Fill Quantity Today:	CY	Marsh Fill Quantity to Date:	CY
Woven Geotextile Fabric Qty. Today:	SY	Woven Geotextile Fabric Qty. to Date:	SY
Non-Woven Geotextile Fabric Qty. Today:	SY	Non-Woven Gtxl. Fabric Qty. to Date:	SY
Articulated Concrete Mats Qty. Today:	SY	Articulated Cnrt. Mats Qty. to Date:	SY
Grade Stakes Today:	No(s) Installed / Removed:	Grade Stakes to Date:	No(s) Installed / Removed:
Settlement Plates Today:	No(s) Installed:	Settlement Plates to Date:	No(s) Installed:
Instrumented Sett. Plates Today:	No(s) Installed:	Instrumented. Sett. Plates to Date:	No(s) Installed:
Internal Training Dikes Used Today:	Sta Start - End: -	Dewatering Structure:	Installed (Closed or Open) / Removed
Dikes Gapped Today:	Sta Start - End: -	Earthen Plug Currently in Use?	No / Yes
Any Turbidity Issues or Sedimentation Detected in Nearby Channels and/or Adjacent Areas?	No / Yes		
If So, Please Describe:			

DAILY PROGRESS REPORT No. _____ By _____ (Contractor) Date: _____
New Orleans Shoreline Stabilization and Marsh Creation Project (PO-169)

Marsh Creation Area 3

ECD Type III Constructed Today:	Sta Start - End:	-	ECD Type III Constructed to Date:	Sta Start - End:	-
ECD Type V Constructed Today:	Sta Start - End:	-	ECD Type V Constructed to Date:	Sta Start - End:	-
ECD Quantity Today:		LF	ECD Quantity to Date:		LF
Marsh Fill Quantity Today:		CY	Marsh Fill Quantity to Date:		CY
Woven Geotextile Fabric Qty. Today:		SY	Woven Geotextile Fabric Qty. to Date:		SY
Non-Woven Geotextile Fabric Qty. Today:		SY	Non-Woven Gtxl. Fabric Qty. to Date:		SY
Articulated Concrete Mats Qty. Today:		SY	Articulated Cncrt. Mats Qty. to Date:		SY
Grade Stakes Today:	No(s) Installed / Removed:		Grade Stakes to Date:	No(s) Installed / Removed:	
Settlement Plates Today:	No(s) Installed:		Settlement Plates to Date:	No(s) Installed:	
Instrumented Sett. Plates Today:	No(s) Installed:		Instrumented. Sett. Plates to Date:	No(s) Installed:	
Internal Training Dikes Used Today:	Sta Start - End:	-	Dewatering Structure:	Installed (Closed or Open) / Removed	
Dikes Gapped Today:	Sta Start - End:	-	Earthen Plug Currently in Use?	No / Yes	
Any Turbidity Issues or Sedimentation Detected in Nearby Channels and/or Adjacent Areas?			No / Yes		
If So, Please Describe:					

Borrow Area 1

Quantity Dredged Today / To Date:	CY /	CY	Dredge Operational Time:	Hrs
Depth Dredged:		ft NAVD88	Dredge Production Rate:	CY/HR
Dredge Advance Schematic Attached:	Yes / No		Estimated Percent Solids:	%

Borrow Area 2

Quantity Dredged Today / To Date:	CY /	CY	Dredge Operational Time:	Hrs
Depth Dredged:		ft NAVD88	Dredge Production Rate:	CY/HR
Dredge Advance Schematic Attached:	Yes / No		Estimated Percent Solids:	%

Notes:

APPENDIX N: DAVIS BACON ACT

General Decision Number: LA160006 02/12/2016 LA6

Superseded General Decision Number: LA20150006

State: Louisiana

Construction Type: Heavy

Counties: Allen, Assumption, Avoyelles, Beauregard, Bienville, Caldwell, Cameron, Catahoula, Claiborne, Concordia, De Soto, East Carroll, East Feliciana, Evangeline, Franklin, Grant, Iberia, Iberville, Jackson, Jefferson Davis, La Salle, Lincoln, Madison, Morehouse, Natchitoches, Pointe Coupee, Red River, Richland, Sabine, St Helena, St Mary, Tangipahoa, Tensas, Union, Vermilion, Vernon, Washington, West Carroll, West Feliciana and Winn Counties in Louisiana.

HEAVY CONSTRUCTION PROJECTS (includes water wells, water & sewer lines, and flood control; excludes elevated storage tanks)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016
1	01/15/2016
2	02/12/2016

ELEC0130-007 06/01/2015

ASSUMPTION AND ST. MARY (Northeast of Atchafalaya River)
PARISHES

	Rates	Fringes
ELECTRICIAN.....	\$ 29.85	10.53

ELEC0194-006 09/07/2015		

BIENVILLE, CLAIBORNE, DE SOTO, NATCHITOCHES (Northeast of the Red River), and RED RIVER PARISHES

Rates	Fringes
-------	---------

ELECTRICIAN

Lineman and Heavy

Equipment Operator.....\$ 26.55 10.35

ELEC0446-004 09/01/2015

CALDWELL, EAST CARROLL, FRANKLIN, JACKSON, LINCOLN, MADISON,
MOREHOUSE, RICHLAND, TENSAS, UNION, and WEST CARROLL PARISHES

Rates Fringes

ELECTRICIAN.....\$ 23.13 1%+10.35

ELEC0576-002 09/01/2015

AVOYELLES, CATAHOULA, CONCORDIA, EVANGELINE, GRANT, LA SALLE,
NATCHITOCHE (Southwest of Red River), SABINE, VERNON, AND WINN
PARISHES

Rates Fringes

ELECTRICIAN.....\$ 24.60 4.25%+6.25

ELEC0861-004 01/01/2016

ALLEN, BEAUREGARD, CAMERON, IBERIA, JEFFERSON DAVIS, ST. MARY
(Southwest of Atchafalaya River), AND VERMILION PARISHES

Rates Fringes

ELECTRICIAN.....\$ 26.75 11.81

* ELEC0995-002 12/01/2015

EAST FELICIANA, IBERVILLE, POINTE COUPEE, ST. HELENA, AND WEST
FELICIANA PARISHES

Rates Fringes

ELECTRICIAN.....\$ 24.24 9.97

ELEC1077-005 06/01/2014

TANGIPAHOA and WASHINGTON PARISHES

Rates Fringes

ELECTRICIAN.....\$ 22.80 7.50

SULA2004-008 05/19/2004

Rates Fringes

CARPENTER (including formsetting/formbuilding).....	\$ 14.75	0.00
--------------------------------------------------------	----------	------

Laborers:

Common.....	\$ 7.60	0.00
Pipelayer.....	\$ 8.47	0.00

PIPEFITTER (excluding pipelaying).....	\$ 18.75	4.05
-------------------------------------------	----------	------

Power equipment operators:

Backhoe/Excavator.....	\$ 11.67	0.00
Boring Machine.....	\$ 10.25	0.00
Bulldozer.....	\$ 11.82	0.00
Crane.....	\$ 13.60	0.00
Dragline.....	\$ 13.12	0.00
Front End Loader.....	\$ 9.93	0.00
Mechanic.....	\$ 12.50	0.00
Trackhoe.....	\$ 11.99	0.00
Tractor.....	\$ 10.43	0.00
Water Well Driller.....	\$ 10.73	2.01

Truck drivers:

Dump.....	\$ 10.00	0.00
Water.....	\$ 8.00	0.00

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification
and wage rates that have been found to be prevailing for the
cited type(s) of construction in the area covered by the wage
determination. The classifications are listed in alphabetical
order of "identifiers" that indicate whether the particular
rate is a union rate (current union negotiated rate for local),
a survey rate (weighted average rate) or a union average rate
(weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed
in dotted lines beginning with characters other than "SU" or
"UAVG" denotes that the union classification and rate were

prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: LA160011 01/08/2016 LA11

Superseded General Decision Number: LA20150011

State: Louisiana

Construction Type: Heavy Dredging

Counties: Louisiana Statewide.

DREDGING PROJECTS ALONG THE GULF COAST AREA INCLUDING THE
MISSISSIPPI RIVER AND ITS TRIBUTARIES TO THE OHIO RIVER

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016

* SULA1994-001 04/01/1994

	Rates	Fringes
Derrick Operator.....	\$ 7.25	
Dozer Operator.....	\$ 7.25	
Dredge 16" and Over		
Deckhand.....	\$ 7.25	
Dredge tender operator.....	\$ 7.25	
Fireman.....	\$ 7.25	
First assistant engineer....	\$ 7.25	
Leverman.....	\$ 7.25	
Oiler.....	\$ 7.25	
Second assistant engineer...	\$ 7.25	
Shoreman.....	\$ 7.25	
Third assistant engineer....	\$ 7.25	
Truck driver.....	\$ 7.25	
Welder.....	\$ 7.25	
Dredge Under 16"		
Deckhand.....	\$ 7.25	
Dredge tender operator.....	\$ 7.25	
Leverman.....	\$ 7.25	
Oiler.....	\$ 7.25	
Welder.....	\$ 7.25	

Hydraulic Dredging		
First cook.....	\$	7.25
Handyman.....	\$	7.25
Janitor, cabin person.....	\$	7.25
Second cook.....	\$	7.25
Marsh Buggy Dragline, Oiler.....\$ 7.25		
Marsh Buggy Dragline, Operator...\$ 7.25		
Self-Propelled Hopper Dredge,		
Drag Tender.....	\$	9.70 3.45+a

FOOTNOTE: Fourteen paid vacation days and eight paid holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day & Christmas Day provided the employee has one year of service.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing

the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on

- a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
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U.S. Department of Labor
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2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

APPENDIX O: LASARD STANDARD OPERATING PROCEDURES

LASARD STANDARD OPERATING PROCEDURES AVAILABLE AT:

<https://cims.coastal.louisiana.gov/RecordDetail.aspx?Root=0&sid=12362>

APPENDIX P: UNANTICIPATED DISCOVERIES PLAN

**UNANTICIPATED DISCOVERIES PLAN
FOR ARCHAEOLOGICAL PROPERTIES, INCLUDING HUMAN REMAINS**

**NEW ORLEANS LANDBRIDGE SHORELINE STABILIZATION &
MARSH CREATION (PO-0169)**

October 2020

1.0 INTRODUCTION

The Coastal Protection and Restoration Authority (“CPRA”) is committed to the protection and preservation of Historic Properties, in accordance with federal and state legislation. CPRA recognizes that despite the intensive archaeological resource field investigations that are typically performed prior to project implementation, it is nonetheless possible that previously unknown archaeological resources could be discovered during the project implementation process, particularly during ground-disturbing activities (e.g., dredging, trenching, etc.). CPRA recognizes the requirement for strict compliance with federal and state regulations and guidelines regarding the treatment of human remains, if any are discovered. The following details the protocol that will be followed in the event that new archaeological resources, including human remains, are discovered during the Project implementation process.

These procedures present the approach that CPRA will use to address unanticipated discoveries of archaeological resources during project implementation activities within the New Orleans Landbridge Marsh Creation (PO-0169) (i.e., “the Project”). The procedures are in accordance with the current standards of the Louisiana Division of Archaeology (“LADOA”) for cultural resource investigations, Louisiana Archaeological Treasure Act (R.S. 41:1601-1613), Louisiana Historic Preservation Program (R.S. 36:208 et. seq.), and the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:673, Acts 1991, No. 704, § 1, eff. Jan. 1, 1992).

2.0 APPLICABLE STATUTES AND REGULATIONS

A. Federal

- Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470f)
- Native American Graves Protection and Repatriation Act regulations (43 CFR 10) (only on Federal lands)

B. State

- Louisiana Archaeological Treasure Act (R.S. 41:1601-1613)
- Louisiana Historic Preservation Program (R.S. 36:208 et. seq.)
- Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:673; Acts 1991, No. 704, § 1, eff. Jan 1, 1992)

3.0 DEFINITIONS

Artifact: An artifact may be defined as an object that has been intentionally made or produced by humans for a certain purpose.

Archaeological Feature: An archaeological feature implies the presence of human activity or occupation. Archaeological features may consist of concentrations of artifacts. However, an archaeological feature may not always be tangible in the same way as an artifact, as it may indicate the prior presence of a monument, building, structure, or other use, including truncated shafts (e.g., wells, cisterns, privies), foundation and cellar remains, and remains from fire hearths, storage pits, wharves, cribbing, fill-retaining devices, and watercraft. They may also consist of discrete deposits of non-human skeletal remains.

Archaeological Property: An archaeological resource that meets the National Register-eligibility Historic Properties criteria.

Archaeological Resource: An archaeological resource may be composed of archaeological features and/or human skeletal remains.

Archaeologist: A person who meets the Secretary of the Interior's (SOI's) Professional Qualifications Standards (36 CFR 63).

Unanticipated Discovery: For purposes of this Project, an unanticipated discovery is a discovery that would require Project implementation activities to stop, so that an archaeologist may evaluate the nature of the find. Such archaeological evaluations may require a very short period of time if the discovery is easily determined by the professional archaeologist to be of modern origin or to be not significant, or a longer period of time, to be established through Project implementation planning documents prepared for the Project, for the archaeologist to determine, as appropriate, the nature and extent of the discovery. An unanticipated discovery may consist of archaeological feature(s), including discrete deposits of non-human skeletal material. An unanticipated discovery may also consist of any human remains located anywhere in the Project area that were not previously identified in the Phase I survey of the fill area or the Phase I survey of the borrow area.

4. PERSONNEL

Archaeologist: The contractor will have an on-call Archaeologist who will be responsible for the implementation of this plan. It will be the responsibility of the Archaeologist to determine the nature of any unanticipated discovery during Project implementation activities, be it a modern artifact or an isolated artifact, or a feature that may warrant Project implementation activities to cease for a certain period of time to permit the Archaeologist to evaluate the potential extent of the find and coordinate with CPRA's PM and CPRA's Environmental Section.

Resident Project Representative (RPR): CPRA shall appoint at the Project site an RPR, who will be responsible for the execution of the given Project and supervise the contractors. The RPR, a representative of CPRA, will be responsible for coordinating with the Archaeologist and contacting other CPRA staff as appropriate in the event of an unanticipated discovery.

5.0 UNANTICIPATED ARCHAEOLOGICAL DISCOVERIES

Artifacts or archaeological features may be discovered by Project or contractor personnel.

The following protocols will be adhered to in the event of a discovery of features during Project implementation:

A. Stop Activities

If artifacts or features are uncovered during a Project implementation activity, the RPR will stop all activity within the immediate vicinity of the discovery, unless safety concerns are an issue. Specifically, the contractor's crew will stop at the spot where the find was uncovered and not resume Project implementation activities within 20 feet of the find (or 30 feet for possible/suspected human remains) until cleared to proceed or directed to work elsewhere by the RPR. This is necessary in order to provide the Archaeologist the opportunity to determine whether the artifact or features(s) represent a potentially significant site.

B. Make Notifications

After Project implementation activities have stopped in the vicinity of the find, the RPR will immediately notify the Archaeologist and CPRA's Construction Manager by phone or email. CPRA's Construction Manager will notify CPRA's Project Manager (PM), CPRA's Environmental Section, and FWS Project Manager by phone or email as soon as possible after they have received notification of the discovery.

C. Initial Determinations

The Archaeologist will review the physical location and type of discovered material with the contractor's appropriate on-site personnel. Since the area may have already been partially disturbed by Project construction activities, the objective will be to evaluate whether or not the site is significant and requires further investigation. If the discovery is not a cultural resource, construction activities may resume.

If the Archaeologist determines the discovery is a cultural resource and further damage may occur if construction activities occur, the following activities will take place as quickly as possible:

- 1) The Archaeologist will determine, based on the artifacts and/or features found, the research potential of the discovery and whether the discovery is significant or not. The discovery and its significance will be documented in writing and transmitted by email to CPRA's Construction Manager, CPRA's PM, and CPRA's Environmental Section. CPRA's PM will forward the documentation to the U.S. Fish and Wildlife Service (USFWS).
- 2) USFWS will immediately notify the Louisiana State Historic Preservation Office (LASHPO) and Tribes of the discovery by phone or email. USFWS will contact LASHPO immediately by telephone, forward the written documentation from the Archaeologist by email, and request concurrence of the discovery's significance within 24 hours. USFWS will forward by email the written documentation from the Archaeologist to interested Tribes in order for the Tribe(s) to determine if the discovery is significant to their tribal history.
- 3) If LASHPO determines that on-site cultural resources investigations are required, LASHPO will notify USFWS in writing. USFWS will notify CPRA's PM. CPRA's PM will notify the RPR that Project construction activities must cease in the area where the unanticipated discovery occurred.

6.0 HUMAN REMAINS DISCOVERIES

A. The discovery of human remains will be guided by the Louisiana Unmarked Human Burial Sites Preservation Act.

B. The procedures that will be followed in the event that potential human skeletal material is discovered during Project implementation activities are as follows:

1) Stop Activities

If any personnel on the Project site identify potential human skeletal remains or indicators of potential human skeletal remains, or mortuary monuments such as gravestones, the RPR will stop all Project implementation activities that could affect the integrity of the remains. The remains will not be touched, moved, or further disturbed until assessed by a professional archaeologist.

2) Make Notifications

If potential human skeletal remains are discovered, the RPR will notify the CPRA's Construction Manager, who will direct the contractor to work elsewhere within the Project, observing a 30-foot buffer zone around the limits of the find, and in turn notify the Archaeologist, CPRA's PM, and CPRA's Environmental Section.

3) Initial Determinations

The Archaeologist will determine if the skeletal remains are human; this may require consultation with an on-call physical anthropologist. If the Archaeologist determines the skeletal remains to be non-human and no other archaeological features that require evaluation are present, CPRA's Construction Manager will notify the RPR that Project implementation activities may proceed within the find spot.

If the Archaeologist determines the remains to be human, CPRA's Construction Manager will notify CPRA's PM. CPRA's PM will notify the parish coroner's office and USFWS. USFWS will notify the State Archaeologist following the provisions of the Louisiana Unmarked Human Burials Site Preservation Act (R.S. 671 *et seq*). Within 24-hours of the notification, the State Archaeologist shall notify any Tribe that has indicated interest in the area of the discovery. The coroner shall assess the nature and age of the human skeletal remains. If the coroner determines that the human skeletal remains are older than 50 years of age, the Louisiana Division of Archaeology (LADOA) has jurisdiction over the remains and will work out appropriate plans among property owners, appropriate Tribes, living descendents, and other interested parties to insure compliance with existing state laws. No human skeletal remains will be removed until jurisdiction is established.

7.0 LIST OF CONTACTS

CPRA PM
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Phone: 225-342-1952
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CPRA Construction Manager
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New Orleans, LA 70122
Phone: 1-504-280-4063
Email: david.chambers@la.gov

Resident Project Representatives
TBD

CPRA Environmental Section
Elizabeth Davoli
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Baton Rouge, LA 70802
Phone: (225) 342-4616
Email: Elizabeth.Davoli@la.gov

USFWS Federal Project Manager
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