

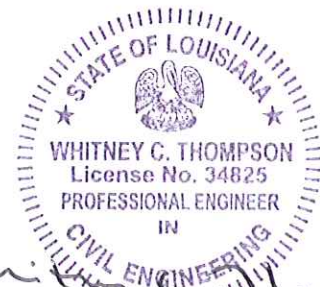
**BID DOCUMENTS
FOR
SHELL ISLAND WEST NRDA RESTORATION
PROJECT (BA-111)**

PLAQUEMINES PARISH, LOUISIANA



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

FEBRUARY 2015



Whitney C. Thompson
2/26/15

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ADVERTISEMENT FOR BIDS

Sealed bids will be received for the State of Louisiana by the Division of Administration, Office of Facility Planning and Control, Claiborne Office Building, 1201 North Third Street, Conference Room 1-145, Post Office Box 94095, Baton Rouge, Louisiana 70804-9095 until 2:00 P.M Tuesday, May 5, 2015.

ANY PERSON REQUIRING SPECIAL ACCOMMODATIONS SHALL NOTIFY FACILITY PLANNING AND CONTROL OF THE TYPE(S) OF ACCOMMODATION REQUIRED NOT LESS THAN SEVEN (7) DAYS BEFORE THE BID OPENING.

FOR: **SHELL ISLAND WEST NRDA RESTORATION PROJECT (BA-111)**

PROJECT NUMBER: **BA-111**

Complete Bid Documents for this project are available in electronic form. They may be obtained without charge and without deposit from:

<http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=432>.

Printed copies can also be obtained from:

COASTAL PROTECTION AND RESTORATION AUTHORITY (CPRA)
450 Laurel Street, Suite 1501
Baton Rouge, Louisiana, 70801
Attn: Renee McKee
Email: cpra.bidding@la.gov Phone: (225) 342-0811 Fax: (225) 342-4674

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

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

A MANDATORY PRE-BID CONFERENCE WILL BE HELD
at 10:00 AM on Tuesday, April 21, 2015 at Lindy C. Boggs International Conference Center,
2045 Lakeshore Drive, Room 256, New Orleans, LA 70122 .

Bids shall be accepted only from those bidders who attend the Mandatory Pre-Bid Conference in its entirety.

It is the responsibility of all potential bidders to visit the jobsite to assess the location, logistics, and site conditions prior to bidding.

Contact Chris Allen at (225) 342-1477 if directions are needed to the Mandatory Pre-Bid Conference.

Bids shall be accepted from Contractors who are licensed under LA. R.S. 37:2150-2192 for the classification of Heavy Construction. 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
DIVISION OF ADMINISTRATION
FACILITY PLANNING AND CONTROL
MARK A. MOSES, DIRECTOR

INSTRUCTIONS TO BIDDERS

COMPLETION TIME:

The Bidder shall agree to fully complete the contract within **Four Hundred Twenty-Five (425)** consecutive calendar days for the Base Bid subject to such extensions as may be granted under Section GP-44 of the General Provisions and acknowledges that this construction time will start on or before the date specified in the written "Notice to Proceed" from the Owner. **Twenty-Five (25)** additional consecutive calendar days will be added if Additive Alternate 1 is awarded for a total contract time of **Four Hundred Fifty (450)** days. **Thirty-Five (35)** additional consecutive calendar days will be added if Additive Alternate 2 is awarded for a total contract time of **Four Hundred Eighty-Five (485)** days. **Twenty (20)** additional consecutive calendar days will be added if Additive Alternate 3 is awarded for a total contract time of **Five Hundred Five (505)** days.

LIQUIDATED DAMAGES:

The Bidder shall agree to pay as Liquidated Damages the amount of **Four Thousand Six Hundred Dollars (\$4,600.00)** for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the contract completion date stated on the "Notice to Proceed" or as amended by change order.

ARTICLE 1

DEFINITIONS

1.1 The Bid Documents include the following:

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

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

1.3 Addenda are written and/or graphic instruments issued by the Engineer prior to the opening of bids which modify or interpret the Bid Documents by additions, deletions, clarifications, corrections and prior approvals.

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

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

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

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

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

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

ARTICLE 2

PRE-BID CONFERENCE

2.1 A MANDATORY 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 Governmen-

tal 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 Sub-contractors 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 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 mod-

el 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 ac-

ceptable 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:
Facility Planning and Control,
P. O. Box 94095
Baton Rouge, Louisiana, 70804-9095.

Bids sent by express delivery shall be delivered to:

Facility Planning and Control
Suite 7-160
Claiborne Office Building
1201 North Third Street
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 Facility Planning and Control 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 ap-

proved 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: Facility Planning and Control
P.O. Box 94095
Claiborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Shell Island West NRDA
Restoration Project
(BA-111)
Plaquemines Parish, Louisiana
(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: CB&I
_____ and dated: February 26, 2015.
(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 *(Additional sand fill on East Lobe)* for the lump sum of:
_____ Dollars (\$ _____)

Alternate No. 2 *(Additional sand fill on East Lobe)* for the lump sum of:
_____ Dollars (\$ _____)

Alternate No. 3 *(Additional marsh fill and construction of primary containment dike, deduction of sand fill on the East Lobe)* for the lump sum of:
_____ Dollars (\$ _____)

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 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.

** If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with 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: Facility Planning and Control
P.O. Box 94095
Claiborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Shell Island West NRDA
Restoration Project
(BA-111)
Plaquemines Parish, Louisiana
(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				
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.# ____ Pre-Construction Surveys				
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.# ____ As-Built Surveys				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
3	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Sand Fill				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
4	3,390,300	Cubic Yard		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Marsh Fill				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
5	1,107,200	Cubic Yard		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Primary Containment Dikes				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
6	5,920	Linear Foot		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Sand Fencing				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
7	9,900	Linear Foot		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ____ Settlement Plates				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
8	12	Each		

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

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Facility Planning and Control
P.O. Box 94095
Claiborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Shell Island West NRDA
Restoration Project
(BA-111)
Plaquemines Parish, Louisiana
(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.# ___ Turbidity Control Structure – Sand Flat				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
9	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Pipeline Conveyance Corridor Crossings – Mississippi River to Fill Area				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
10	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Navigational Crossings				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
11	5	Each		

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

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Signage				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
13	1	Lump Sum		

DESCRIPTION: <input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# ___ Signage Removal				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
14	1	Lump Sum		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# _1_ Sand Fill				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
15	704,900	Cubic Yard		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# _1_ Sand Fencing				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
16	1,350	Linear Foot		

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Facility Planning and Control
P.O. Box 94095
Claiborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Shell Island West NRDA
Restoration Project
(BA-111)
Plaquemines Parish, Louisiana
(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.# <u>_1_</u> Settlement Plates				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
17	2	Each		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>_1_</u> Turbidity Control Structure – Sand Flat				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
18	1	Lump Sum		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>_2_</u> Sand Fill				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
19	778,600	Cubic Yard		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>_2_</u> Sand Fencing				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
20	3,150	Linear Foot		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>_2_</u> Settlement Plates				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
21	1	Each		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>_3_</u> Sand Fill				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
22	-24,000	Cubic Yard		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>_3_</u> Marsh Fill				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
23	571,600	Cubic Yard		

DESCRIPTION: <input type="checkbox"/> Base Bid or <input checked="" type="checkbox"/> Alt.# <u>_3_</u> Primary Containment Dikes				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
24	4,580	Linear Foot		

Wording for “DESCRIPTION” is to be provided by the Owner.

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Facility Planning and Control
P.O. Box 94095
Claiborne Building
Baton Rouge, LA 70804
(Owner to provide name and address of owner)

BID FOR: Shell Island West NRDA
Restoration Project
(BA-111)
Plaquemines Parish, Louisiana
(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.# <u>3</u> Settlement Plates				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
25	3	Each		

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

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

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

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

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

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

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

SHELL ISLAND WEST NRDA RESTORATION
PROJECT (BA-111)
Name of Project

BA-111
Project No.

STATE OF LOUISIANA

PARISH OF PLAQUEMINES

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. 14:23) |

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

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

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.
- 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.

SHELL ISLAND WEST NRDA RESTORATION
PROJECT (BA-111)
Name of Project

BA-111
Project No.

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 _____, 2015, 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, Technical Specifications, and Environmental Provisions), 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: _____
Kyle Graham, Executive Director

BY: _____

SURETY: _____

BY: _____
ATTORNEY IN FACT

ADDRESS

TELEPHONE NUMBER

STATE OF LOUISIANA
PARISH OF PLAQUEMINES

PROJECT NO. BA-111

NAME SHELL ISLAND WEST NRDA

RESTORATION

PROJECT

LOCATION: PLAQUEMINES PARISH

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 _____, 2015.

NOTARY

PART I GENERAL PROVISIONS

GP-1 DEFINITION OF TERMS

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

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

- a. Acceptance: A written approval from the Engineer which certifies that specific items of work in the Contract have been completed and/or obligations have been fulfilled by the Contractor.
- b. Addenda: Those written or graphic documents which are issued prior to opening of Bids in accordance with the Bidding Requirements and clarify or change the bidding requirements or the proposed Contract Documents.
- c. Application of Payment: That form which is used by the Contractor to request partial and final payment and is deemed acceptable to the Owner. It shall be accompanied by any supporting documentation required by the Contract Documents.
- d. A.S.T.M.: American Society for Testing and Materials.
- e. Bid: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.
- f. Bidder: The person, association of persons, firm, or corporation submitting a proposal for the Work.
- g. Bidding Requirements: The Advertisement for Bids, Instructions to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.
- h. Change Order: A written order which is submitted to the Contractor, signed by the Owner, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the contract price or the contract time issued after the effective date of the Contract.
- i. Claim: A written demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both or other relief with respect to the terms of the Contract.
- j. Contract: The written agreement between the Owner and the Contractor which defines the work to be completed and shall be understood to also include all Contract Documents.
- k. Contract Documents: The Contract, all addenda which pertains to the Contract Documents, Bid Documents and specified Attachments accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award, Contractor's Bid when attached as an exhibit to the Agreement, the Bonds (Bid and Performance/Payment), General Provisions, Special Provisions, Technical Specifications, Plans, and all Field or Change Orders issued after the execution of the Agreement. Shop Drawings and other submittals by the Contractor are not Contract Documents.
- l. Contract Price: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Contract.

- m. Contract Time: The number of calendar days specified in the Contract for completion of the Work, together with any extensions authorized through change orders.
- n. Contractor: The person, association of persons, firm, or corporation entering into the duly awarded Contract.
- o. Contracting Agency: The State of Louisiana, Coastal Protection and Restoration Authority (CPRA).
- p. Day: When any period of time is referred to in the Contract Documents using days, it will be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday, Sunday, or a legal holiday, that day will be omitted from the computation. A calendar day is measured as twenty-four (24) hour period starting at midnight and ending the following midnight.
- q. Design Report: A written report by the Engineer which provides the design methodology for the Work.
- r. Effective Date of the Contract: The date indicated in the Contract on which it becomes effective.
- s. Engineer: The State of Louisiana, Coastal Protection and Restoration Authority, or its designee.
- t. Equipment: All machinery, implements, and power tools, in conjunction with the necessary supplies for the operation, upkeep, maintenance, and all other tools and apparatuses necessary for the proper construction and acceptable completion of the Work.
- u. Extension of Contract: Any extension of time for completion of Work beyond the Contract Time which is granted by the Owner, recommended by the Engineer and approved by the Coastal Protection and Restoration Authority in the form of a Change Order.
- v. Federal Sponsor: The federal agency which has been tasked, if applicable, to manage the implementation of the project.
- w. Field Order: A written order issued by the Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or Contract Time.
- x. Laboratory: The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.
- y. Laws and Regulations; Laws or Regulations: Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- z. Materials: Any substance used in the Work to build structures, but does not include material used in false work or other temporary structures not incorporated in the Work.
- aa. Milestone: A principal event specified in the Contract Documents relating to an intermediated completion date or time prior to the Contract Times.
- bb. Notice of Award: A written notice to the successful Bidder stating that the Bid has been accepted by the Owner and that the successful Bidder is required to execute the Contract and furnish the Payment and Performance Bond and Non-Collusion Affidavit.
- cc. Notice to Proceed: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.

- dd. Owner: The Owner is the State of Louisiana (State) which acts through the Contracting Agency.
- ee. Performance and Payment Bond: The approved form of security furnished by the Contractor and Surety for the faithful performance of the Work, and the payment for all labor, materials, and/or obligations incurred by the Contractor in the prosecution thereof.
- ff. Plans: That part of the Contract Documents prepared or approved by the Engineer which graphically shows the scope, intent, and character of the Work to be completed by the Contractor.
- gg. Project Site: The location where the Work is to be performed as stated in the Contract Documents.
- hh. Resident Project Representative: An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.
- ii. Right of way: That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.
- jj. Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portions of the Work will be judged.
- kk. Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work to be performed.
- ll. Specifications: That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the work to be performed and certain administrative details applicable thereto.
- mm. State: The State of Louisiana.
- nn. Structures: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.
- oo. Subcontractor: Any person, association of persons, firm, or corporation who contracts with the Contractor to perform any part of the project covered by the Contract.
- pp. Submittals: Certificates, samples, shop drawings, and all other project data which are submitted to the Engineer in order to verify that the correct products will be installed on the project.
- qq. Successful Bidder: The lowest 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, 2006 edition. The Bidder understands that all quantities for performing the Work have been estimated by the Engineer, and that the Bid shall be the sum of the quantities multiplied by their respective unit rates. The Contract shall be awarded by the Owner through a comparison of all bids. It is the responsibility of each Bidder before submitting a Bid to:

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

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

GP-3 AVAILABILITY OF PLANS AND SPECIFICATIONS

One (1) set of Plans and Specifications shall be furnished to each Bidder. Three (3) sets of the Plans and Specifications shall be furnished to the Contractor upon award of the Contract. Additional sets may be furnished to the Contractor upon request from the Engineering Division of the Coastal Protection and Restoration Authority, 450 Laurel Street, 11th Floor, Baton Rouge, Louisiana 70801.

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 Appendix X. Prevailing Wage Determination Schedules are subject to modification by the United States Department of Labor. The Contractor is responsible for utilizing the most current Prevailing Wage Determination Schedule. These documents can be downloaded from the following link: <http://www.wdol.gov/dba.aspx#3>. Modifications to Prevailing Wage Determination Schedules shall be effective if received (or posted) no less than 10 days prior to bid opening.

GP-5 PRE-BID CONFERENCE AND SITE VISIT

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

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

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

GP-6 NOTICE OF AWARD

The Owner, or its designated bidding agent (Division of Administration, Office of Facility Planning and Control), 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 Special Provisions.

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 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 up-

on 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

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

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

GP-10 DAILY PROGRESS REPORTS

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

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

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

GP-11 HURRICANE AND SEVERE STORM PLAN

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

- a. What type of actions will be taken before storm strikes at the Project Site. The plan should specify what weather conditions or wave heights will require 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 Appendix XII. 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 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 Appendix XIII. 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 temporary easements, servitudes, and right-of-way agreements from known public and private utilities in order to perform the Work. The utilities include, but are not limited to telephone, telegraph, power poles or lines, water or fire hydrants, water or gas mains and pipelines, sewers, conduits, and other accessories or appurtenances of a similar nature which are fixed or controlled by a city, public utility company or corporation.

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

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

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

GP-26 PERMITS

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

GP-27 PROJECT SITE CLEAN-UP

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

GP-28 OWNER INSPECTION

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

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

GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE

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

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

GP-30 CONSTRUCTION STAKES, LINES, AND GRADES

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

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

GP-31 CONTRACTOR'S RESPONSIBILITY FOR WORK

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

GP-32 ENVIRONMENTAL PROTECTION

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

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

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

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

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

GP-33 SANITARY PROVISION

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

GP-34 PAYMENT OF TAXES

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

GP-35 RADIO AND TELEPHONES

The Contractor shall furnish and maintain radio and telephone equipment throughout the Contract Time which will allow communication between the Contractor and the Engineer or Resident Project Representative. The Contractor shall provide a radio for the Resident Project Representative while they are on-site.

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

All marine vessels not subject to USCG certification or ABS Classification shall be inspected annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS). All inspections shall be documented using an appropriate report format. At a minimum, the inspections shall evaluate the structural integrity of the vessel and comply with the National Fire Protection Association Code No. 302- Pleasure and Commercial Motor Craft. The most recent inspection report shall be posted in a public area on board each 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, equip-

ment, 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 SUBSTANTIAL COMPLETION

Upon notice from the Contractor that it believes the project has reached substantial completion, and before final acceptance, the Engineer will make an inspection of the Work. "Substantial Completion" is defined as the date on which the Work is complete in accordance with the Contract Documents in order that the Owner can occupy and use the project for its intended use. The date of Substantial Completion shall be specified in the Notice of Acceptance.

If the Owner or its representative determines the Project is substantially complete, the Owner shall issue a Notice of Acceptance identifying the date the Project reached Substantial Completion and attach a punch list identifying the remaining items that must be completed before final payment. The Owner will then file an official Notice of Acceptance with the Clerk of Court in the Parish where the work is performed and will forward one copy of the recorded acceptance to the Contractor and Engineer.

If the inspection discloses any work as being unsatisfactory or incomplete and such work generates a formal punch list, the Engineer will give the Contractor instructions for correction of same, and the Contractor shall immediately comply with such instructions. Upon satisfactory completion of the corrections, when a "Punch List" is generated, the Engineer shall prepare a "Recommendation of Acceptance" incorporating the punch list and submit to the Owner. Upon approval of the Recommendation of Acceptance, the Owner may issue a Notice of Acceptance of the Contract which shall establish the date of Substantial Completion.

Any punch list generated by the Engineer shall be accompanied by a cost estimate to correct the particular items of work the Engineer has developed. The cost estimate shall be developed based on mobilization, labor, material, and equipment costs of correcting each punch list item and shall be retained from monies owed to the Contractor, above and beyond the standard retainage. The Engineer shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The Owner shall not withhold from payment more than the value of the punch list. Punch list items completed shall be paid upon the expiration of the forty-five (45) day lien period. After that payment, none of the remaining funds shall be due the Contractor until all punch list items are completed and are accepted by the Engineer.

If the dollar value of the punch list exceeds the amount of funds, less retainage amount, in the remaining balance of the Contract, the Project shall not be accepted as Substantially Complete. If the funds remaining are less than required to complete the punch list work, the Contractor shall pay the difference. The provisions listed above shall not be subject to waiver.

Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work/project as provided in the Notice of Acceptance, unless otherwise agreed to in writing by the Owner and Contractor. In the instance where the Owner has accepted the Work/project as substantially complete and issued a Notice of Acceptance, and the Contractor must remain on the premises to complete the "Punch List" or for whatever reason, the Contractor shall maintain Commercial General Liability insurance, Auto Liability insurance and Worker's Compensation insurance as set forth herein until the expiration of the forty-five (45) day lien period or upon the completion of the work/project, whichever is later. Builder's Risk insurance, if applicable, may be cancelled only with the written permission of the Owner or the Owner's representative at Substantial Completion.

If the punch list is not completed within forty-five (45) days, through no fault of Owner or Engineer, the Owner may, but is not required, to place the Contractor in default. Thereafter, the Owner shall notify the Surety. If the Surety has not completed the punch list within forty-five days of receipt of notification, the Owner may, but is not required to, complete the remaining punch list items. Any costs incurred shall be paid for first out of any remaining Contract funds. If the costs incurred exceed the remaining Contract funds, the Contractor and its Surety shall be liable for such costs.

Upon completion of the punch list, Contractor shall request Final Inspection.

GP-54 FINAL INSPECTION AND ACCEPTANCE

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

If all construction provided for in the contract is found completed to the Engineer's satisfaction, that inspection shall constitute the final inspection and the Engineer will make recommendation to the Owner for final ac-

ceptance and notify the Contractor in writing of this recommendation of acceptance.

GP-55 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-56 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-57 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:
 - 57.a.1 A written warranty by the manufacturer for each piece of installed project equipment or apparatus furnished under the Contract.
 - 57.a.2 Any necessary repair or replacement of the warranted equipment during the guarantee period at no cost to the Owner.
 - 57.a.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:
 - 57.b.1 Abuse or improper modification, maintenance, or operation by anyone other than the Contractor; or
 - 57.b.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:
 - 57.c.1 Observations by the Owner or Engineer; or
 - 57.c.2 Recommendations by the Engineer or payment by the Owner; or
 - 57.c.3 Use of the Work by the Owner; or

- 57.c.4 Issuance of a notice of acceptance by the Owner pursuant to the provisions of GP-53, or failure to do so; or
- 57.c.5 Any inspection, test, or approval by others; or
- 57.c.6 Any correction to non-conforming work by the Owner.

GP-58 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-59 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.

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

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

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

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

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

GP-60 PAYMENTS WITHHELD

In addition to the percentage provided for in Section GP-59 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 and as permitted under Section SP-11 of the Special Provisions, from any amounts which may be due and owing the Contractor for work performed under the contract.

GP-61 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-62 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 disa-

bilities. 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-63 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-64 SUSPENSION/DEBARMENT

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

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

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

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

End of PART I GENERAL PROVISIONS

PART II SPECIAL PROVISIONS

SP-1 PRECEDENCE OF CONTRACT DOCUMENTS

These Contract Provisions, Specifications, Plans, Bid Forms, Appendices, and supplementary documents are essential parts of the Contract. A requirement occurring in one is as binding as though occurring in all. These documents are intended to be complementary and to describe and provide for a complete work. In the case where a conflict occurs, the order of precedence of the Contract Documents is as follows:

- Permits from other agencies as may be required by law
- Change Orders
- Contract Agreement
- Addenda
- Bid Forms
- Notice to Bidders
- Instructions to Bidders, Policies, and Procedures
- Special Provisions
- Technical Specifications
- General Provisions
- Plans
- Appendices

Calculated dimensions will govern over scaled dimensions. Follow GP-2 if any conflicts, errors, ambiguities, or discrepancies are discovered within the listed documents.

SP-2 LOCATION OF WORK

The Work to be performed is located in Plaquemines Parish, Louisiana, on the remnants of the east and west islands that once comprised Shell Island. Shell East is located immediately north and west of the Empire Waterway Jetties. Shell West is located west of Coupe Bob from Shell East and east of Grand Bayou Pass (now closed). The base bid includes the placement of 3,390,300 cubic yards of sand fill of which 1,249,500 cubic yards shall be placed on Shell East (beach, dune, and sand flat) and 2,140,800 cubic yards on Shell West (beach and dune). In addition, the base bid includes a total 1,107,200 cubic yards of marsh fill material to be placed on Shell West. The base bid also includes 5,920 linear feet of primary containment dike to be constructed on Shell West. The base bid also includes 9,900 linear feet of sand fencing of which 3,600 linear feet shall be installed on Shell East and 6,300 linear feet on Shell West. A total of 12 settlement plates are included in the base bid, of which two (2) settlement plates shall be installed on Shell East and ten (10) on Shell West. There are three (3) potential borrow sites for beach, dune, and sand flat fill, which are located within the Mississippi River between 12.2 miles north, 8.0 miles north-northeast, and 8.6 miles northeast from the project area. An offshore borrow area located 4.5 miles southeast of the project site is available to provide marsh fill material only, and it is comprised of a mixture of silt and clay with little sand. The conveyance corridor from the Mississippi River includes a temporary mooring area in the Mississippi River, an upland segment, and an open water segment through the Empire Waterway to Shell Island.

Additive Alternate 1 increases the beach, dune, and sand flat fill volume by 704,900 cubic yards of sand fill to be placed on Shell East. Additive Alternate 1 also increases the sand fencing quantity by 1,350 linear feet on Shell East. The settlement plate quantity is increased by two (2) for Additive Alternate 1, and an additional Turbidity Control Structure quantity is added.

Additive Alternate 2 increases the beach and dune fill volume by 778,600 cubic yards of sand fill to be placed on Shell East. Additive Alternate 2 also increases the sand fencing quantity by 3,150 linear feet on Shell East and the settlement plate quantity by one (1).

Additive Alternate 3 includes 571,600 cubic yards of marsh fill material to be placed on Shell East. Additive Alternate 3 also adds 4,580 linear feet of primary containment dike to be constructed on Shell East to facilitate marsh creation. Three (3) settlement plates are also added as part of Additive Alternate 3. Additive Alternate 3 also decreases the sand fill volume by 24,000 cubic yards; the western toe of the sand flat would not be required as the sand flat would be contained at the western boundary by the primary containment dike.

The U.S. Army Corps of Engineers (USACE) is currently in the construction phase of the New Orleans to Venice Hurricane Protection Levee Project (NOV) in the vicinity of the hurricane protection levee crossing. The Contractor shall coordinate all construction and mobilization activities in this area with the USACE.

The fill site is accessible only by boat. The nearest boat launch is located in Empire, Louisiana off of Hwy. 11, Delta Marina, which is approximately 8.0 miles north-northeast of the project area. Any and all fees required by the marina are the responsibility of the Contractor.

SP-3 WORK TO BE DONE

The Work to be performed under these Plans and Specifications consists of furnishing all labor and Materials, including mobilization and demobilization, to dredge fill material to create the design fill template, construct containment dikes, and install sand fencing and settlement plates.

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 at or to the Project Site, dredging, conveyance and placement of fill material, installation of a temporary turbidity control structure, sediment pipeline crossings, excavating navigational crossings and booster pump locations, construction of primary dikes, and installation of sand fencing and settlement plates. The Work shall be performed in accordance with these Specifications and in conformity to lines, grades, and elevations shown in the Plans or as directed by the Engineer. Quantity calculations, layouts, Shop Drawings, and construction sequencing of these items shall be provided in the Work Plan. The major tasks associated with the Work are described as follows:

- 3.1 Conveyance Corridor: Sediment pipeline used by the Contractor to facilitate the placement of beach, dune, and sand flat fill material shall be placed in the permitted conveyance corridor and within the construction limits shown in the plans.
- 3.2 Conveyance Corridor Crossings: The sediment pipeline shall be placed within the conveyance corridor limits. The conveyance corridor crossings within the upland segment of the corridor include crossing over the Mississippi River levee, passing through the permanent casing pipe beneath Parish Highway 11, placement across the Empire Harbor Canal via trench excavation, passing through the permanent casing pipe beneath Louisiana Highway 23, crossing over the Hurricane Protection levee, crossing atop the existing Empire marsh, crossing over the existing rock revetment at the Empire Waterway, and crossing the Empire Waterway. Conveyance corridor crossings within the Empire Waterway segment include trench excavation and placement of the sediment pipeline within the permitted crossing at the required depth to allow for continued navigation. Temporary sediment pipeline and casing pipe markers shall be constructed by the Contractor at the locations shown in the Plans and defined in the Specifications. Temporary sediment pipeline markers shall be constructed by the Contractor at the locations shown in the Plans and defined in the Specifications.
- 3.3 Hydraulic Dredging: Approximately 3,390,300 cubic yards of beach, dune, and sand flat material shall be placed on the islands in the locations and to the elevations depicted in the Plans in accordance with the Contract Documents. Additive Alternate 1 increases the sand fill quantity by 704,900 cubic yards to be placed on Shell East. Additive Alternate 2 increases the sand fill quantity by 778,600 cubic yards to be placed on Shell East. Approximately 1,107,200 cubic yards of marsh fill material shall be hydraulically dredged and placed in the locations on Shell West and to the elevations depicted in the plans resulting in approximately 738,100 cubic yards of marsh fill placed within the construction template. Additive Alternate 3 increases the marsh dredging quantity by 571,600 cubic yards to be

placed on Shell East resulting in approximately 381,100 cubic yards of marsh fill placed within the construction template.

- 3.4 Primary Containment Dike: Containment dikes are mandatory and shall be constructed from in-situ soils in order to contain the marsh fill area. (The beach fill shall act as the southern containment dike.) The Contractor may construct internal training dikes as necessary to improve containment or dewatering of the fill containment areas but at no cost to the Owner. The Contractor shall maintain the integrity of the containment dikes during construction. Approximately 5,920 linear feet of primary containment dike shall be constructed and maintained in sheltered bay areas along the northern portions of the fill area on Shell West for the base bid, as shown in the Plans. Additive Alternate 3 increases the primary containment dike quantity by 4,580 linear feet to be constructed and maintained along the northern portions of the fill area on Shell East.
- 3.5 Access Dredging: Access channels approaching the project site may be dredged, as shown in the Plans, to allow delivery of construction Materials, personnel, and Equipment via marine vessels. The Contractor may only dredge within the access channels shown in the Plans.
- 3.6 Sand Fencing: Approximately 9,900 linear feet of sand fencing is to be installed for the Base Bid as shown in the Plans. Additive Alternate 1 increases the sand fencing quantity by 1,350 to be installed on Shell East, and Additive Alternate 2 increases the sand fencing quantity on Shell East by 3,150.
- 3.7 Settlement Plates: Twelve (12) settlement plates shall be installed for the Base Bid as shown in the Plans. Settlement plates shall be surveyed during installation and throughout construction. Additive Alternates 1, 2, and 3 increase the settlement plate quantities by 1, 1, and 3, respectively.
- 3.8 Turbidity Control Structure: A turbidity control structure is required to be installed along the landward length of the marsh sand flat. The structure should be offset no greater than 150 feet landward of the toe of fill as shown in the Plans.
- 3.9 Pre-construction Survey: This item includes surveying the beach, dune, sand flat, marsh profiles, and borrow areas shown in the Plans and required in these Specifications prior to construction. Prior to construction, the survey profiles established for the design survey and Plans shall be resurveyed for bathymetry and topography. Prior to construction, the Contractor shall perform a magnetometer survey of the borrow areas, access channels, fill sources for primary dikes, conveyance corridor, and any areas to be excavated to verify pipeline or obstruction locations and ensure no unknown pipelines exist within the project area. The magnetometer survey shall be submitted to the Engineer prior to excavation of material. During construction, beach/dune fill and marsh fill surveys for quality control shall be performed as deemed necessary by the Contractor and as requested by the Engineer.
- 3.10 As-built Survey: This item includes surveying the beach/dune and marsh profiles, primary dike, and borrow areas shown in the Plans and required in these Specifications following construction.
- 3.11 Use of Equipment: The Equipment used for the Work shall be operated within the boundaries of the Project Construction Limits 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.

SP-4 GENERAL REQUIREMENTS

- 4.1 Scope: The Work covered under these Plans and Specifications consists of furnishing all plant, labor, Materials, and Equipment for performing all required Work for the mobilization, demobilization, hydraulic dredging, and placement of spoils in accordance with these Specifications and in conformity

to the lines, grades, and elevations shown in the Plans or as directed by the Engineer. Major tasks associated with this Work include, but may not necessarily be limited to, the following:

- 4.1.1 Surveying: This item includes surveying the beach/dune and marsh profiles shown in the Plans. This item also includes performing a magnetometer survey of all access routes to the Project Site and temporary access channels, and surveying the access channels, fill sources, and the borrow areas. All quality control and acceptance surveys shall be performed by approved Contractor personnel at no direct pay.
 - 4.1.2 Containment Dikes: Construction and maintenance of containment dikes in water areas along the northern portions of the fill areas as shown in the Plans.
 - 4.1.3 Dredging: Access channels approaching Shell Island shall be dredged and maintained to allow delivery of construction personnel, Equipment, and Materials via marine vessels.
 - 4.1.4 Hydraulic Dredging: Hydraulically dredged fill material shall be placed in the location and to the slopes and elevations depicted in the Plans.
 - 4.1.5 Grading: All dredged material shall be graded to the tolerances stated in the Plans.
 - 4.1.6 Sand Fencing: Sand fencing shall be installed in the locations shown in the Plans.
 - 4.1.7 Settlement Plates: Settlement plates shall be installed at locations shown in the Plans.
- 4.2 Site Examination: Bidders are required to examine the Project Site and determine the character of the material to be dredged from the borrow areas, access and dike excavation channels, existing infrastructure, and the nature of the terrain. Further investigation of the site may show that logs, stumps, snags, debris, and other obstructions may be encountered. No separate payment for removal and disposal of these obstructions shall be made.

Before submitting a Bid, each Bidder should: (a) examine the Bid Documents thoroughly; (b) visit the Project Site to familiarize himself with local conditions that may in any manner affect cost, progress, or performance of the Work; (c) familiarize himself with Federal, State, and Local laws, ordinances, rules, and regulations that may in any manner affect cost, progress, or performance of the Work; (d) review such geotechnical data that is on file in the Engineering Division of the Coastal Protection and Restoration Authority or available from other sources and which concerns the area from which materials are to be dredged; and (e) study and carefully correlate Bidder's observations with the Bid Documents.

Bidders are highly encouraged to inspect the Project Site prior to Bid Submittal. Bidders may access the Project Site to conduct such observations, investigations, and tests as the Bidder deems necessary for submission of his Bid. He shall, however, conform to such restrictions as may be imposed by agreements, permits, etc. See SP-7 Landowner and Leaseholder Requirements of the Special Provisions for details of other restrictions and requirements. At the time of construction, portions of the project site may be being utilized by Great Lakes Dredge and Dock. Contact Barry Richard at 504-280-4059 to coordinate access if necessary.

- 4.3 Permits: The Owner has obtained a Coastal Use Permit from the Louisiana Department of Natural Resources, Office of Coastal Management, Clean Water Certificate from Louisiana Department of Environmental Quality, 404 Corps of Engineers Permit, and a LDWF Fill Area permit. The Contractor will be furnished with a copy of these permits and shall be responsible for compliance with all provisions and conditions. These permits do not relieve the responsibility of the Contractor from

obtaining additional permits that may be needed to complete the Work. Copies of any special permits obtained by the Contractor to complete the Work must be submitted to the Owner.

- 4.4 Removal of Trash: The Contractor shall remove all debris, trash, and garbage resulting from construction activities at the site within three (3) Days after completion of the construction activities. The Contractor must keep project area clean at all times.
- 4.5 Placement of Dredged Material: The Contractor shall not deposit dredged material into areas other than those shown in the Plans or stated in the permits without approval of the Engineer.
- 4.6 Navigation: All operations in connection with the Work shall be in accordance with Subsection 107.09, Navigable Waters and Wetlands, of the Louisiana Standard Specification for Roads and Bridges, 2006. Failure of the Contractor to familiarize himself with all terms, conditions, and provisions of the rules and regulations applicable to the Work shall not relieve him of his responsibility under the Contract. Navigable depths shall not be impaired except as allowed by laws regulating navigation in the area.
- 4.7 Existing Features: The Contractor shall be responsible for investigating, locating, and protecting all existing facilities, structures, services, and pipelines on, above, or under the surface of the area where dredging operations are to be performed. The Owner will not be held responsible for damage to the Contractor's Equipment, employees, Subcontractors, adjacent property owners, or anyone else connected with the project due to encountering objects above and/or below the water line.

Existing features indicated in the Plans are shown only to the extent that such information was made available to or discovered by the Engineer during preparation of the Plans. There is no guarantee as to the accuracy or completeness of such information, and all responsibility for the accuracy and completeness is expressly disclaimed. If the Contractor fails to discover an underground installation and damages the same, he shall be responsible for the cost of the repair.

SP-5 CONTRACT DATES AND MILESTONES

Milestone	Location or Recipient	Date Due
Bid Advertisement	Louisiana Procurement and Publications (LaPAC Network)	As Advertised
Pre-Bid Conference and Site Visit	Provided in Advertisement for Bids	As Advertised
Questions on Bid Documents	CPRA.bidding@la.gov	Provided in Instruction to Bidders(or as announced at Pre-Bid Conference)
Effective Date of Contract	Contractor and Owner	Stated in Contract
Start of Contract Time	Contractor and Owner	As stated in Notice to Proceed
Work Plan	Submit to Engineer	At least 14 days prior to the pre-construction conference
Progress Schedule	Contractor and Engineer	At least 14 days prior to the pre-construction conference, bi-weekly thereafter
Superintendent Qualifications	Engineer	Prior to pre-construction conference
List of Subcontractors	Engineer	Prior to awarding subcontracts
Pre-Construction Conference	Contractor and Engineer	As determined by the Engineer after the Notice to Proceed is issued
Progress Meetings and Reports	At Project Site	Bi-weekly or as determined at the Pre-Construction Conference (See GP-13, GP-39)
Written Notice of Completion of Work	Engineer	Upon substantial completion of Work
Pre-construction Survey	Engineer	After pre-construction meeting and 21 days prior to the start of construction
As-Built Survey and Drawings	Deliver to Engineer	Prior to Final Inspection as scheduled by the Engineer
End of Contract Time	Project Site	425 calendar Days after Notice to Proceed for Base Bid, 25 additional calendar days if Additive Alternate 1 is awarded, 35 additional calendar days if Additive Alternate 2 is awarded, 20 additional calendar days if Additive Alternate 3 is awarded.

SP-6 DELIVERABLES

6.1 Prior to Construction

- 6.1.1 The Contractor shall submit all documents to the Engineer prior to the Pre-Construction Conference required by GP-8, GP-9, GP-10, GP-11, GP-12:
 - 6.1.1.1 Turbidity Control Plan as specified in Section TS-24;
 - 6.1.1.2 Environmental Protection Plan as specified in Section EP-12.
- 6.1.2 The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference specified in GP-14:
 - 6.1.2.1 Updates to all plans and schedules based on comments from the Engineer;
 - 6.1.2.2 Potential construction corridors (other than from what is provided, if needed) which may be approved on an as needed basis.
- 6.1.3 The Contractor shall submit a pre-construction survey a minimum of twenty-one (21) calendar days prior to the start of excavation or dredging as specified in Sections TS-31, TS-32, TS-33, TS-34, and TS-35 of the Technical Specifications.

6.2 During Construction

The Contractor shall deliver copies of the following documents upon request by the Engineer, or as specified in these provisions:

- 6.2.1 The results of all surveys and calculations as specified in TS-4 and TS-5;
- 6.2.2 Progress Schedule as specified in GP-9;
- 6.2.3 Daily Progress Reports as specified in GP-10;

Daily Progress Reports shall be submitted daily following issuance of the Notice to Proceed until project completion. A copy of the typical Daily Progress Report shall be submitted to the Engineer with the Work Plan.

- 6.2.4 Progress Meeting Reports as specified in Section GP-13 of the General Provisions;
- 6.2.5 Copies of all inspection reports;
- 6.2.6 All Change Orders, Field Orders, Claims, clarifications, and amendments;
- 6.2.7 Results of any Materials testing.

6.3 Administrative Records

- 6.3.1 Notice of Intent to Dredge: At least thirty (30) Days prior to commencement of Work on this Contract, the Contractor shall notify the U.S. Coast Guard, Sector New Orleans Command Center, at the address below, of his intended operations to dredge and request that it be published in the Local Notice to Mariners. 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. A copy of the Department of the Army Permit and drawings shall be provided to the U.S. Coast Guard. A copy of the notification shall be provided to the Owner and Engineer prior to the commencement of dredging.

U.S. Coast Guard
Sector New Orleans Command Center
200 Hendee Street
New Orleans, LA 70114
504-365-2208

- 6.3.2 Relocation of Navigational Aids: Temporary removal of any navigation aids located within or near the areas required to be dredged or filled and material stockpile areas shall be coordinated by the Contractor with the U.S. Coast Guard prior to removal. The Contractor shall not otherwise remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Eighth U.S. Coast Guard District, New Orleans, Louisiana, in writing, with a copy to the Owner and Engineer, seven (7) Days in advance of the time he plans to dredge or Work adjacent to any aids which require relocation to facilitate the Work. The Contractor shall contact the U.S. Coast Guard for information concerning the position to which the aids will be relocated.
- 6.3.3 Private Aids to Navigation: The Contractor shall obtain approval for all dredging aids, including, but not limited to, temporary navigation aids, warning signs, buoys, and lights, required to conduct the Work specified in this Contract. The Contractor shall obtain a temporary permit from the U.S. Coast Guard for all buoys or dredging aid markers to be placed in the water prior to installation. The permit application shall state the position, color, and dates to be installed and removed for all dredging aid markers and be submitted to the U.S. Coast Guard. Dredging aid markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids. Copies of the application and permit shall be submitted to the Owner and Engineer seven (7) Days prior to commencement of dredging operations.
- 6.3.4 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, Engineer, and Resident Project Representative 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 rendered judgment concerning the artifacts of interest.

- 6.4 Post Construction: The Contractor shall contact the Engineer by phone a minimum of five (5) working Days prior to the anticipated completion of the Work in order to schedule the Final Inspection and gain

Acceptance by the Engineer. As-Built Drawings as specified in Section GP-54 of the General Provisions shall also be submitted to the Engineer.

6.5 Summary of Project Submittals: The following table is a summary of Submittals required of the Contractor as part of this section and other sections of these Specifications:

Specification	Deliverable	Submittal
GP-8	Work Plan	At least 14 Days prior to the pre-construction conference
GP-9	Progress Schedule	Within 15 days of Notice to Proceed
GP-9	Progress/Work Schedule	Prior to Pre-construction conference
GP-9	Progress Schedule	Bi-weekly as determined at the Pre-Construction Conference
GP-10	Typical Daily Progress Report	At least 14 Days prior to the pre-construction conference
GP-10	Daily Progress Reports	Daily by 12:00 PM (noon) to the Resident Project Representative and Engineer
GP-11	Hurricane and Severe Storm Plan	At least 14 Days prior to the pre-construction conference
GP-12	Health and Safety Plan	At least 14 Days prior to the pre-construction conference
GP-13	Typical Progress Meeting Report	At least 14 Days prior to the pre-construction conference
GP-19	Names of all Subcontractors	Prior to awarding subcontracts
TS-24	Turbidity Control Plan	At least 14 Days prior to the pre-construction conference
TS-26	Primary Dike Construction Plan	At least 14 Days prior to the pre-construction conference
TS-32	Marsh As-Built Survey Methodology	At least 14 Days prior to the pre-construction conference
EP-12	Environmental Protection Plan	At least 14 Days prior to the pre-construction conference
SP-14	Accident Prevention Plan	At least 14 Days prior to the pre-construction conference
GP-8	Work Plan Updates	Pre-Construction Conference
SP-6	Potential Construction Corridors	Pre-Construction Conference
TS-31, TS-32, TS-34, and TS-35	Pre-Construction Survey	21 Days Prior to the Start of Construction
TS-33	Magnetometer Survey	3 Days Prior to the Start of Excavation or Dredging
TS-21.11	Dredge Mobilization Notification	At least 3 days prior to mobilization of the Dredge and other Equipment
TS-21.11	Dredge Demobilization Notification	At least 3 days prior to demobilization of the Dredge and other Equipment
TS-4 and TS-5	Results of Surveys and Calculations	At least 4 Days prior to Acceptance notification
SP-6	Copies of Inspection Reports	During Construction
SP-6	Results of Materials Testing	During Construction

Specification	Deliverable	Submittal
SP-6	Notice of Intent to Dredge	30 Days Prior to Commencement of Work with a request to publish the Notice to Mariners 7 days prior to commencement of work. Submit to Coast Guard with copy to Owner and Engineer
SP-6	Relocation of Navigation Aids	At least 7 Days prior to relocating navigation aids
SP-6	Dredging Aids Permit	At least 7 Days prior to the commencement of offshore dredging
SP-6	Historic Cultural Sites	Immediately upon discovery. Submit to Engineer, Owner and Resident Project Representative
SP-6	Notice to Mariners	7 Days Prior to Start of Dredging
SP-7	Landowner Notification Letters – Certified Mail Receipts	Within 30 days of Notice to Proceed
GP-53	Written Notice of Completion of Work	Upon substantial completion of work
GP-55	As-Built Drawings	Prior to Final Acceptance

SP-7 LANDOWNER AND PIPELINE OWNER REQUIREMENTS

The Owner has obtained temporary easement, servitude, and right-of-way agreements required for construction of the project. The agreements executed with landowners and leaseholders for the Work at the site contain special requirements pertaining to access routes and insurance. Additional land rights information and maps are included in Appendix XIII. The Contractor shall abide by the following stipulations as set forth by the Owner and respective landowners (Grantors):

Louisiana Department of Wildlife and Fisheries: No activities will be allowed within 100 feet of nesting bird colonies unless approved by Program Manager.

Landowners: The Contractor shall 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. See Appendix XIII for list of land owners.

Landowner notification requirements:

- A. The following notice language is in Article II. of the Plaquemines Parish Government (PPG) servitude agreement: “The STATE agrees to give reasonable notice to PPG prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.”
- B. The following notice language is in Paragraph 6 of the State Land Office, Division of Administration’s Grant of Particular Use and Right of Entry for Construction: “Pursuant to the Permits and Responsibilities clause, you are required to contact the Administrator of the State Land Office or his representative at (225) 342-4575, to notify the Office when construction will commence on the State-owned sea-shore, State lands and/or State water bottoms.”
- C. 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.

Landowner General Provisions:

- A. Article III: in the agreements includes that should work on (landowner's) Lands be performed via contract, STATE shall ensure that the contractor lists GRANTORS as an additional insured on any policies carried by the contractor, including completed operations coverage.
- B. Article IV: includes that **STATE through its Contractor shall be responsible for repair...such repair shall be to that condition and value which existed immediately prior to Contractor's activities.** STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project within three (3) days of completion.
- C. Article X: includes that the **Agreements shall remain in effect for the twenty (25) year life of the project from** the date of signature of the State, unless sooner released by STATE.
- D. Article XIII: in some of the agreements include that the State shall provide upon request to Grantor copies of all permits, reports, studies and analysis of all work performed by the State on the property, including all filings with and reports to any governmental authority.
- E. The Contractor shall add the landowners listed above as additional insured to their certificate of insurance. 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.

Special Conditions (in addition to what is already listed) in Servitude Agreements:

- A. Notwithstanding the provisions in Paragraph III (Perez), the following shall be added: STATE will require any contractor or successor, assign or transferee to carry liability and property damage insurance naming GRANTOR as an additional insured with minimum limits of \$1,000,000.00 for injuries sustained by any one person in any one accident, \$2,000,000.00 in the aggregate and property damages of \$1,000,000.00.
- B. In addition, the contractor and subcontractor shall take and maintain during the life of the contract workers' compensation insurance for all of their employees employed at the site of the project. Coverage provided must meet requirements of the labor code of the State of Louisiana. In case any class of employees is engaged in hazardous work under the workers' compensation statute, the contractor and subcontractor shall provide employer's liability insurance for the protection of their employees not otherwise protected. Employers' liability limit shall be \$1,000,000 when work is to be over water and involves maritime exposure.
- C. (LL&E) Contractor working on LL&E property shall maintain in full force, during the entire existence of this Agreement, Workman's Compensation Insurance in an amount necessary to satisfy the minimum requirements of the laws of the State of Louisiana.

Additional Provisions:

In addition to obligations of Contractor set forth in GP-24, SP-6, and Appendix XIII: Contractor shall provide to the CPRA Landrights Project Land Manager listed below within thirty (30) calendar days after the bid con-

tract's notice to proceed is issued: certificate of insurance that lists all landowners provided above as additional insured; and certified mail receipts of project construction notification letters sent to all landowner(s) and pipeline owner(s)/operator(s).

Ben Barnes
450 Laurel Street
Suite 1200
Baton Rouge, LA 70801

Confirmed Pipeline Operators:

Columbia Gulf Transmission (NISOURCE is the parent company) (CONFIRMED)
24" Natural Gas - ACTIVE
Darren Duhon
201 Energy Parkway, Suite 100
Lafayette, LA 70508
(o) 337-266-4672

OGS Pipeline, LLC (Formerly Bastian Bay Pipeline) (LAST KNOWN OWNERS)
2" Natural Gas - ABANDONED
Tim Van Ackern
907 RR 620 South, Suite 201
Austin, TX 78734
(o) 512-610-5100

Tennessee Gas Pipeline Company
Rick Sellers
(o) 337-738-6144
(c) 281-520-7584
Rick_sellers@kindermorgan.com

Unconfirmed/Last Known Pipeline Operators:

Westfield Oil & Gas, Inc.

Mideast Gas Systems, Inc.

Bastian Bay Pipeline Company, Inc.

Pipeline Provisions:

- A. The Contractor shall notify all pipeline companies at least seventy-two (72) hours in advance of any construction Work. All pipelines located within 150 feet of the dike alignments, marsh fill areas, borrow area, excavation area, and sediment pipeline corridor shall be probed and their locations marked, prior to excavation and/or installation of the sediment pipeline, for the duration of construction activities. No excavation shall be permitted within 50 feet of any pipeline. Plan set Part A indicate pipelines that were obtained from databases and those that were field verified. It is the Contractor's responsibility to locate all pipelines for purposes of determining areas where excavation is not permitted.
- B. NOTE: Special care and extremely close coordination by the construction contractor with the pipeline companies will be crucial in order to avoid impacting the pipelines within or near the project area. Due to the extensive numbers of oil and gas lines in the area, and the limited time available to obtain landrights coverage for same, the contractor(s) will need to acquire any permission for crossings of

lines outside of those that may not have been previously found/covered. It is recommended that confirmation in the field, including, but not limited to, use of a magnetometer survey/s be a requirement of the contractor/s to ensure that any lines in the area are identified and will not be impacted. No dredging over any pipeline rights-of-ways can be permitted. The conveyance pipeline will need to be floated over pipelines that may potentially be impacted by same. Verification of pipelines, their depths and draft of the equipment to be used will be essential. The assumption resulting from current investigations does not include oil and gas operations that might commence in the future.

- C. The construction contractor will also need to contact Louisiana One Call at (800) 272-3020 at least five (5) business days prior to construction.

SP-8 OYSTER LEASE RESTRICTIONS

Oyster leases that are actively managed and harvested are known to exist in the vicinity of the Project Site. The Contractor shall perform construction activities as to avoid impacting these resources. Any measures taken to avoid impacts and/or penalties and fines resulting from construction of the project shall be at the sole responsibility of the Contractor and at no cost to the Owner. If restrictions are such that they inhibit construction of the project as specified in the Contract Documents, the Contractor shall immediately notify the Owner and Engineer so that corrective measures can be taken. It is assumed that no written notification from the Contractor implies that there are no impacts to construction of the project and implementation of the construction documents. Existing oyster leases to be extinguished in the vicinity of the Project Site can be found in Appendix IX.

SP-9 THREATENED AND ENDANGERED SPECIES

The Environmental Assessment for this project identifies Pallid Sturgeon, Brown Pelicans, Bald Eagles, and West Indian Manatees as threatened and endangered species which have the potential to exist within the boundaries of the Project Site. The Contractor shall review and comply with the restrictions listed below regarding construction activities.

- 9.1 West Indian Manatee – The following precautions will be implemented from May to October, when manatees have the greatest potential for entering the project area:
 - 9.1.1 All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s).
 - 9.1.2 All personnel associated with the project shall be instructed about the possible presence of manatees and the need to avoid collisions with and injury to manatees. Any sighting of, collision with, or injury to a manatee shall be immediately reported to the Engineer.

The following special operating conditions shall be implemented upon the sighting of a manatee within 100 yards of the active work zone:

- 9.1.2.1 No operation of moving equipment within 50 feet of a manatee;
- 9.1.2.2 All vessels shall operate at no wake/idle speeds within 100 yards of the work area; and
- 9.1.2.3 Siltation barriers, if used, shall be re-secured and monitored.

SP-10 WORK PLAN SUPPLEMENTAL

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

- 10.1 Dredge Data Sheet as specified in SP-18;
- 10.2 Layout and construction schedule for internal training dikes and/or containment dikes;
- 10.3 Layout and construction schedule for dredge slurry pipes; and
- 10.4 Layout and construction schedule for discharge and dewatering of marsh creation areas.
- 10.5 Borrow area cuts sequence for each borrow area as specified in TS-21.4.

SP-11 FAILURE TO COMPLETE ON TIME

For each Day the Work remains incomplete beyond the Contract Time, as specified in SP-5, or Extension of Contract Time, as specified in GP-44, the sum of four thousand six hundred dollars (\$4,600) per calendar Day will be deducted from any money due to the Contractor as liquidated damages. The Contractor and Surety shall be liable for any liquidated damages that are in excess of the amount due the Contractor.

SP-12 PROTECTION OF WORK

The construction area may be subject to flows of water during construction. It will be the responsibility of the Contractor to protect his Work and Equipment from damages due to waves, increases in Gulf of Mexico, Empire Waterway, and/or Mississippi River water levels, ground water, and local rain water. The Owner shall not be held liable or responsible for delays or damages to the Contractor's Work or Equipment resulting from in-flows of tidal, surface, or ground water or other conditions.

SP-13 PROJECT SCHEDULING

Within fourteen (14) calendar Days after the Notice to Proceed, the Contractor shall submit to the Engineer for review and Acceptance an updated Progress Schedule indicating the starting and completion dates of the various stages of the Work and a preliminary schedule of values of the Work.

Bi-weekly Progress Meetings will be held at which time changes in the schedule will be discussed, as specified in Sections GP-9 and GP-13 of the General Provisions.

SP-14 SAFETY REQUIREMENTS

14.1 Contractor Responsibility for Safety: The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

- 14.1.1 State and Federal personnel, Resident Project Representative, the public, all employees and Subcontractors involved in the Work, and all other persons who may be affected thereby;

- 14.1.2 All Work and all Materials or Equipment to be incorporated therein, whether in storage on or off the project site; and,
- 14.1.3 Other property at the site or adjacent thereto, including trees, shrubs, natural vegetation, walks, Structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- 14.2 Compliance with Safety Laws: The Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction over the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection; and shall have at the work site at all times a dedicated safety and flag person. The Contractor shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all Work is completed and the Owner has notified the Contractor that the Work is complete.
- 14.3 Familiarity with Safety Standards: The Contractor shall review the accident prevention clause of the Contract, the Corps of Engineers Manual, General Safety Requirements, EM 385-1-1, dated November 2003 (or most recent version), and all changes and amendments thereto, and the latest Occupational Safety and Health Agency (OSHA) standards, to assure himself that he has full knowledge of the personal protective equipment that must be provided workmen and that he is familiar with the safety standards applicable to the prevention of accidents during the construction of this project and shall comply with all applicable provisions.
- 14.4 Submittals: When requested, submit to the Owner in accordance with the General Provisions Submittals section. Submittals are for the record or approval, as indicated.
- 14.5 Diving Plan: The Contractor shall submit to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference, as part of their health and safety plan (GP-12), a diving plan if diving is included as a part of the planned operations. The intent of this requirement is to assure safe diving, particularly when emergencies, marine maintenance, or underwater problems occur which require diving. Additionally, the Contractor is to determine that placement of spuds, anchors, pipes, etc. will not impact existing submerged pipelines, a procedure that may require diving. All diving shall be conducted in accordance with the requirements of the most recent versions of the following documents:
 - 14.5.1 U.S. Navy Diving Manual, Volume I and II (NAVSEA 0994-LP-001-9010 and NAVSEA 0094-LP-001-9020).
 - 14.5.2 U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1. Section 30.
 - 14.5.3 U.S. Army Corps of Engineers, Jacksonville District Regulation CESAJR 385-1-1, Appendix P, "Contract Diving Operations".
 - 14.5.4 29 CFR, Part 1910, Subpart T, OSHA Regulations.

The Diving Plan is to include all items specified in paragraph 30.A.13 of EM 385-1-1. This plan shall contain information specific to the diving operations to be performed. Submission of the plan does not

constitute an endorsement on the part of the Owner or Engineer that the Contractor's diving procedures are safe. The plan is intended to provide a method by which the Contractor demonstrates an awareness of diving standards.

14.6 Accident Prevention Plan: The Contractor is required to submit an Accident Prevention Plan as part of the Work Plan to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference. The accident prevention plan must be in accordance with all Federal safety standards as specified in EM 385-1-1, dated November 2003, entitled "Safety & Health Requirements Manual." Submission of the plan does not constitute an endorsement on the part of the Owner or Engineer of the Contractor's Accident Prevention Plan. The plan is intended to provide a method by which the Contractor demonstrates an awareness of Federal safety standards.

14.7 Hazard Communication: The Contractor shall comply with the requirements of OSHA 1910.1200, the Hazard Communication Standard. General requirements are as follows:

14.7.1 Provide a written program describing the implementation method of the previously referenced standard. This shall be provided to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference.

14.7.2 Ensure that the Contractor's personnel are informed about health and physical hazards associated with Materials to be used.

14.7.3 Ensure that a hazardous material inventory is available to the Owner and Engineer upon request.

14.7.4 Ensure proper labeling of hazardous material containers.

14.7.5 Ensure availability of a Material Safety Data Sheet on site.

14.8 Oil and Hazardous Material Spills and Containment: The Contractor shall ensure that all hazardous material spills are immediately reported to the proper authorities and to the Resident Project Representative, Engineer, and Owner. All hazardous material spills shall be immediately cleaned up in accordance with the U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1. In accordance with EM 381-1-1, the Contractor shall use suitable methods such as dikes or curbs to prevent the spread of hazardous materials from above ground storage tanks and piping in case of leakage.

14.9 Confined Space Entry: The Contractor shall submit a confined space entry plan as part of their written proposal for accident prevention. The confined space entry plan shall be submitted to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference.

Confined space is any space having limited openings for entry and exit, not intended for continuous occupancy, and unfavorable natural ventilation which could contain or produce dangerous concentrations of airborne contaminants or asphyxiates. Confined spaces may include but are not limited to storage tanks, holds of vessels, manholes, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, trenches, vats, and open top spaces more than 4 feet in depth such as pits, tubs, vaults and vessels, or any other place with limited ventilation.

Prior to entering a confined space, the work environment shall be tested by a competent person using properly calibrated approved Equipment to determine the extent of potential hazards. If the atmosphere cannot be determined by testing, an immediately Dangerous to Life and Health situation shall be

assumed. The evaluation shall consider the potential for evolution of toxic substances as well as oxygen content. Testing for toxic substances shall be performed prior to each entry and on a continuous or frequent (as stipulated in the Confined Space Entry Procedure) basis while personnel are working in confined spaces.

- 14.10 Activity Hazard Analysis: The Contractor is required, as part of its written plan for quality control, to submit an Activity Hazard Analysis to the Engineer at least fourteen (14) Days prior to the Pre-Construction Conference. The Activity Hazard Analysis is outlined in U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1, Section 01.A., Figure 1-1.
- 14.11 Safety Person Requirement: The Contractor shall employ at the Project Site a permanent Safety and Occupational Health person (Safety Officer) to manage the Contractor's accident prevention program. The Safety Officer shall be on duty during any Work of a complex nature including, but not limited to, the relocation of utilities; Work on or around Structures; Work on or around existing fill area dikes; fill placement in the fill area; or when blasting or other potentially hazardous activities are occurring. The principal Safety Officer shall report to and work directly for the Contractor's superintendent or the corporate safety office. The Safety Officer shall have the authority to take immediate steps to correct unsafe or unhealthful conditions. The presence of the Safety Officer will not abrogate safety responsibilities of other personnel.
- 14.12 Qualifications for Safety Officer:
- 14.12.1 Shall have a degree in a technical or scientific field or safety in a four-year, or longer, program from an accredited school; or
- 14.12.2 Shall have at least one (1) year of experience in safety and occupational health work.
- 14.12.3 Fourteen (14) Days prior to the Pre-Construction Conference, the Contractor shall submit to the Engineer, for approval, the name and qualifications of the proposed Safety Officer(s) and a functional description of duties as part of the Health and Safety Plan. The Safety Officer may be assigned additional duties by the Contractor as long as those additional duties do not preclude or prevent completion of the Safety Officer duties.
- 14.13 Record Keeping: The Contractor shall maintain all required OSHA records. Records of safety performance shall be available at the Project Site for inspection upon request of the Owner.
- 14.14 Discovery of Unknown Potentially Hazardous Conditions and Materials/Substances: In the event conditions, materials, or substances are encountered during the course of the Work that cause the Contractor to reasonably suspect the presence of asbestos, polychlorinated biphenyl (PCB), or other hazardous materials, the Contractor shall cease all work in the affected area immediately and notify the Owner, Engineer, and Resident Project Representative. The affected area will be cordoned off and signage placed in order to prevent access by any personnel. The Contractor shall not proceed with further work of any kind in the affected area until instructions are received from the Owner. Upon identification of the material or substance and receipt of written instructions from the Owner, the Contractor may proceed only in accordance with the instructions of the Owner and the applicable code or regulation pertaining to the specific material identified.

SP-15 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION

The Contractor shall train all Subcontractors and personnel in all phases of environmental protection. Personnel and Subcontractors will be familiar with permit requirements and with the necessity of protection of all habitats.

The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and Contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment and shall be thoroughly knowledgeable of Federal, State, and Local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the Contractor. Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with the General Conditions.

SP-16 COMMENCEMENT, EXECUTION, AND COMPLETION

The Contractor will be required to commence Work at the site under the Contract within thirty (30) calendar Days of the effective date of the Notice to Proceed. He shall conduct Work in such a manner and with sufficient Materials, Equipment, and labor as is considered necessary to insure its completion within the time limit specified.

SP-17 TRANSPORTATION

The Contractor shall provide a safe and reasonable means of transportation to and from the staging area and Project Site for the Resident Project Representative, and Engineer, for the duration of the Work. The schedule and pickup location shall be arranged by the Engineer/Resident Project Representative and the Contractor prior to mobilization.

The Contractor shall provide a boat and land transportation for the exclusive use of the Engineer and/or Resident Project Representative to tour the Project Site during the Work.

The boat shall have the following features:

- 17.1 An enclosed cabin space;
- 17.2 Capable of maintaining 25 knots (29 mph);
- 17.3 Six (6) passenger capacity;
- 17.4 Coast Guard certified;
- 17.5 Operable marine radio;
- 17.6 All safety equipment required by the Coast Guard for the size and type of that boat;
- 17.7 Draft of two feet (2') or less.

The Contractor shall supply the fuel and maintain the boat and land transportation resources. All mechanical malfunctions shall be repaired within twelve (12) hours.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other necessary transportation at the expense of the Contractor. The costs asso-

ciated with providing transportation shall be included in the lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-18 DREDGE DATA SHEET

The Contractor shall complete the dredge data sheet located in front of the specifications for each dredge that is proposed to be used to perform the Work and include it in the Work Plan. Submittal of a dredge data sheet shall constitute a certification that the described Equipment is available to, and under control of, the Contractor. The Dredge Data Sheet is not mandatory and is for informational purposes only. The data is pertinent to the evaluation of the proposed dredges and their ability to perform the Work. The Bidder may only omit data or information that is considered to be proprietary.

SP-19 OFFICE FOR ENGINEER AND RESIDENT PROJECT REPRESENTATIVE

The Contractor shall provide a separate office at the fill site, acceptable to the Owner and Engineer, for the Engineer and Resident Project Representative. The office shall be separate from the Contractor's office, work, and storage areas. These offices shall be for the sole use of the Engineer and Resident Project Representative, suitably sized, and provided with lighting, heat, and air conditioning. The office furnishings shall include a work table, drafting table, stool, and two (2) chairs. Adequate lighting and electrical services shall be provided to operate office equipment supplied by the Owner. Internet access within the offices shall be provided by the Contractor.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other offices 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".

SP-20 ACCOMMODATION FOR THE RESIDENT PROJECT REPRESENTATIVE

If the Contractor provides on-site boarding facilities (ie a quarters barge) immediately adjacent to the project site, then boarding facilities shall be provided for the resident project representative. Quarters, sanitary facilities, and meals, which are acceptable to the Owner, shall be included for the resident project representative. The quarters and sanitary facilities shall be separate from the Contractor's quarters, office, work, storage, and common areas. If on-site accommodations are not provided, the Contractor shall only be responsible for providing transportation to and from the work area for the resident project representative.

SP-21 CONSTRUCTION OFFICE

The Contractor shall maintain a construction office on Shell Island, at or near the Project Site. The Contractor shall staff the office between 8:00 am and 5:00 pm, seven (7) Days per week.

SP-22 CONTRACTOR INFORMATION

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

Coastal Protection and Restoration Authority (CPRA)
450 Laurel Street, Suite 1501
Baton Rouge, LA 70801
Attn.: Renee' McKee
Phone: 225-342-0811
Fax: 225-342-4674
Email : cpra.bidding@la.gov

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

CPRA Project Engineer
Jacques Boudreaux, E.I.
P.O. Box 4407
Baton Rouge, Louisiana 70804-4027

Phone: 225-342-0242
Fax: 225-242-3733
E-mail: Jacques.Boudreaux@la.gov

CPRA Field Engineer
Barry Richard, P.E.
2045 Lakeshore Drive
CERM Building, Suite 309
New Orleans, Louisiana 70122
Phone: 504-280-4059
Fax: 504-280-4066
E-mail: Barry.Richard@la.gov

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

SP-23 COMMUNICATION PLAN

The Contractor shall develop and maintain a written Communication Plan. The Contractor's proposed Communication Plan shall be included in the Work Plan. The Plan shall include, but not be limited to, the following:

- 23.1 A separate meeting will be held to present the Work Plan to the following:
 - 23.1.1 Owner and Engineer
 - 23.1.2 U.S. Army Corps of Engineers (USACE)
 - 23.1.3 U.S. Coast Guard (USCG)
 - 23.1.4 Maritime Navigation Safety Association (MNSA)
- 23.2 The Contractor shall be required to submit a daily log of the dredge plan providing anticipated dredging locations within the borrow areas and any anchor buoys, attendance plant, and floating pipeline locations when dredging within the Mississippi River. The daily log shall consist of plan view map(s) showing these locations and latitude/longitude coordinates of the above mentioned items. The daily log shall be submitted by the Contractor to the Engineer, USACE, USCG, and MNSA by 4:00 pm on the day prior to the described activities.

SP-24 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.

24.1 Minimum Scope and Limits of Insurance

24.1.1 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.

24.1.2 Commercial General Liability

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

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

COMBINED SINGLE LIMIT (CSL) PER OCCURRENCE

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

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

24.1.3 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.

24.1.4 Excess Umbrella

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

24.1.5 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.

24.1.6 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.

24.2 Other Insurance Provisions

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

24.2.1 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.

24.2.2 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.

24.2.3 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.

24.2.4 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.

24.2.5 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
- Name of Owner
- Owner Address
- City, State, Zip
- Attn: Project # _____

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

Upon failure of the Contractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Owner, may be suspended, discontinued or terminated. Failure of the

Contractor to purchase and/or maintain any required insurance shall not relieve the Contractor from any liability or indemnification under the contract.

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

24.2.6 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.

24.2.7 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.

24.2.8 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.

24.3 Performance and Payment Bond

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

The Contractor shall record within thirty (30) days the Contract Between Owner and Contractor and Performance and Payment Bond with the Clerk of Court in the Parish(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-25 EMPLOYEE BLOWER PROTECTION

This Contract and employees working on this Contract will be subject to the whistleblower rights and remedies in the pilot program on Contractor employee whistleblower protections established at 41 U.S.C. 4712 by Section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and Federal Acquisition Regulation (F.A.R.) 3.908.

The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the F.A.R.

The Contractor shall insert the substance of this clause, including this paragraph, in all subcontracts over the simplified acquisition threshold.

End of PART II SPECIAL PROVISIONS

PART III TECHNICAL SPECIFICATIONS

TS-1 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION

- 1.1 Description: Mobilization consists of preparatory work and operations, including those necessary for movement of personnel, Equipment, supplies, and incidentals to the Project Site, constructing pipeline, dredging construction access channels, construction access channel maintenance, and any other work necessary to access the Project Site for the duration of the project; the establishment of offices, buildings, and other facilities necessary for the Work on the project; the cost of Bonds and any required insurance; and other pre-construction expenses necessary for the start of the Work, excluding the cost of construction Materials.
- 1.2 Arbitrary Mobilization by Contractor: The Owner will pay for mobilization and demobilization only once. Should the Contractor demobilize prior to completing the project, such mobilization and subsequent remobilization shall be at no cost to the Owner.
- 1.3 Ratio of Mobilization and Demobilization Effort: Fifty percent (50%) of the lump sum price will be paid to the Contractor after commencement of dredging and the placement of at least 5,000 cubic yards of material within the fill template in twenty-four (24) hours, or less, time. Ten percent (10%) of the lump sum price will be paid to the Contractor after commencement of excavation and construction of at least 500 feet of primary dike. The remaining forty percent (40%) will be paid in the final payment for the Work under this Contract upon the removal of the temporary sediment pipeline and elevations within the Empire Waterway and construction access channels and temporary spoil areas are within 0.5 feet of pre-Scofield Island (BA-40) project construction elevations.
- 1.4 Justification of Mobilization Costs: In the event that the Engineer considers the amount in this item does not bear a reasonable relation to the cost of the Work in this Contract, the Engineer may require the Contractor to produce cost data to justify this portion of the Bid. Failure to justify such price to the satisfaction of the Engineer will result in payment of actual mobilization costs, as determined by the Engineer at the completion of mobilization, and actual demobilization costs, as determined by the Engineer at the completion of demobilization, and payment of the remainder of this item in the final payment under this Contract. The determination of the Engineer is not subject to appeal.
- 1.5 Measurement and Payment: All costs connected with mobilization and demobilization of the entire Contractor's plant, Equipment, personnel, and those of his Subcontractors and such other costs as may be denoted in the Contract Documents shall be paid for at the Contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

TS-2 PAYMENT FOR PRE-CONSTRUCTION SURVEY

- 2.1 General: The pre-construction survey shall consist of hydrographic, topographic and magnetometer surveying of the dune and beach fill area, marsh fill area, sediment pipeline corridors, and borrow areas according to the Specifications and Plans. All costs connected with the pre-construction survey will be paid for at the Contract lump sum price for Pre-Construction Survey (Bid Item No. 2), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.
- 2.2 Surveyor: All surveys shall be certified by a surveyor or professional engineer registered in the State of Louisiana. The licensed professional will be responsible for all survey Work. The licensed professional is not obligated to perform the field work but shall perform sufficient oversight to exhibit responsible charge. The professional engineer or land surveyor must be a primary employee of a firm

that is registered by the Louisiana Professional Engineering and Land Surveying board to perform survey work.

- 2.3 Payment Request: The Contractor may apply for payment for the pre-construction survey once the completed survey has been submitted to the Engineer in a survey format provided in Appendix III. Twenty-five percent (25%) of the lump sum cost will be paid following Submittal and Acceptance of the beach, dune, and sand flat pre-construction surveys, twenty-five percent (25%) of the lump sum cost will be paid following Submittal and Acceptance of the marsh pre-construction surveys, ten percent (10%) will be paid following submittal of the sediment pipeline corridor surveys, twenty percent (20%) of the lump sum cost will be paid following Submittal and Acceptance of the Mississippi River borrow areas pre-construction surveys, and twenty percent (20%) of the lump sum cost will be paid following Submittal and Acceptance of the Gulf of Mexico marsh fill Borrow Area 35-E.

TS-3 PAYMENT FOR AS-BUILT SURVEY

- 3.1 General: The as-built survey shall consist of hydrographic and topographic surveying of the dune, beach, and sand flat fill area, marsh fill area, sediment pipeline corridors, and borrow areas according to the Specifications and Plans. All costs connected with the as-built survey will be paid for at the Contract lump sum price for As-Built Survey (Bid Item No. 3), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.
- 3.2 Surveyor: All surveys shall be certified by a surveyor or professional engineer registered in the State of Louisiana. The licensed professional will be responsible for all survey Work. The licensed professional is not obligated to perform the field work but shall perform sufficient oversight to exhibit responsible charge. The professional engineer or land surveyor must be a primary employee of a firm that is registered to perform survey work by the Louisiana Professional Engineer and Land Surveying board.
- 3.3 Payment Request: The Contractor may apply for payment for the as-built survey once the completed survey has been submitted to the Engineer in a survey format provided in Appendix III. Twenty-five percent (25%) of the lump sum cost will be paid following Submittal and Acceptance of the beach, dune, and sand flat as-built surveys, twenty-five percent (25%) of the lump sum cost will be paid following Submittal and Acceptance of the marsh as-built surveys, ten percent (10%) will be paid following submittal of the sediment pipeline corridor surveys, twenty percent (20%) of the lump sum cost will be paid following Submittal and Acceptance of the Mississippi River borrow areas as-built surveys, and twenty percent (20%) of the lump sum cost will be paid following Submittal and Acceptance of the Gulf of Mexico marsh fill Borrow Area 35-E survey.

TS-4 PAYMENT FOR HYDRAULIC PLACEMENT OF BEACH AND DUNE FILL

- 4.1 General: Costs associated with the project, including costs associated with, but not limited to, layout, surveying and reporting, water quality monitoring, debris removal, excavating, transporting, overflow weir devices, site restoration and repairs, hydraulic beach, dune, or sand flat fill placement, and other Materials and Work shall be included in the Contract unit prices per cubic yard for Bid Item No. 4, and/or Bid Item No. 15 and/or Bid Item No. 19 and/or Bid Item No. 22 "Beach and Dune Fill", which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.
- 4.2 Payment Surveys: Payments will be based on the result of the comparison of pre-construction and as-built surveys. The Engineer will verify the pay quantities provided by the Contractor based on pre-construction and as-built surveys conducted by the Contractor and accepted by the Owner. The Contractor shall notify the Engineer at least three (3) working Days prior to when the payment surveys will

be conducted. The surveys will be conducted per Section TS-31 of the Technical Specifications. The Engineer, at its discretion, may verify the as-built survey results of the Contractor. The Engineer's survey will be used for payment purposes if, in the Engineer's opinion, a significant difference is found between the Contractor's as-built survey and the Engineer's survey. The pre-construction and as-built surveys will not be adjusted based on any possible subsidence measured by the settlement plates or grade stakes.

- 4.3 Acceptance Notification: The notification of rejection or acceptance of a pay section will be based on written notification provided by the Engineer to the Contractor after the Engineer has reviewed the submitted calculations and survey data. After the calculations and survey data have been received by the Engineer, the Engineer will have four (4) working Days to review the data and prepare a written response indicating whether the section(s) have been accepted or rejected, and the reason for rejection, if applicable.
- 4.4 Computation of Payment Volumes: The volume of material in a pay section shall be the perpendicular distance between pay profiles multiplied by the average of the cross-sectional area of the profile lines enclosing the pay section (average end area method). The perpendicular distance between pay profiles is listed in the Plans. The perpendicular distance has been computed to account for the pie shape between some adjacent pay lines. The portions of the profile lines that lie outside the limits of the fill shall NOT be included in this computation. The "Landward Toe of Dune", which is shown in the Plans, will be the northern limit of the beach/dune fill for payment calculations except for within the sand flat for which the "Toe of Sand Flat" will be the northern limit of the beach/dune fill for payment calculations. Payment will be provided for fill contained within the payment profile construction templates only, as shown in the Plans. No payment will be provided for fill placed above the template. The Contractor's Bid shall account for any costs associated with the profile selection, the azimuth of profile lines, the stated perpendicular distance between pay profiles, the profile measurement technique, and the payment volume calculation technique. The Contractor shall provide their calculations of volumes (broken down by pay profile line) along with their invoice to the Engineer. Payments will be based on computations made by the Engineer of volumes placed.
- 4.5 Fill Tolerances: Payment shall be for hydraulic beach, dune, and sand flat fill placed within the construction template only, as shown in the Plans. The tolerance is a non-pay tolerance and provided for meeting permit and design requirements. Any material placed above the template may be left in place at the discretion of the Engineer; however, this material will not be included in the beach, dune, and sand flat fill pay quantities. Any beach and dune fill incidentally placed landward of the beach/dune may be left in place, at the discretion of the Engineer, and paid for at the marsh fill unit price, as long as the material is within the marsh fill template. The maximum vertical tolerance below and above the template is 0.5 feet for the beach, dune, and sand flat. Hydraulic fill placement must at least meet the 0.5 feet tolerance below the template everywhere in the acceptance section and contain the minimum fill volume requirement. The Contractor shall fill any deficient section to meet, at a minimum:
- 4.5.1 The lower template tolerance everywhere on the constructed cross-section, and
- 4.5.2 Ninety-five percent (95%) of the fill volume for the pay section.
- 4.6 Compensating Slope Adjustment: It is recognized that it may be difficult to control fill below approximately +1 foot NAVD88. Payment by application of compensating slope will be allowed for beach fill placed below +1 foot NAVD88. Material placed above the template and below +1 foot NAVD88 can be used to offset deficiencies in filling the template below +1 foot NAVD88. Compensating volume will only be paid up to the volume contained within the template shown in the Plans. Under filling of the template above +1 foot NAVD88 will not be compensated for by the placement of additional fill below +1 foot NAVD88 and vice-versa. Payment will only be based on fill that can be measured within the limits of the pre-construction and as-built surveys. The Contractor is responsible for

any additional costs incurred (such as, but not limited to, expanded surveys or calculations) required to satisfy compensating slope measurements. Regardless of the compensating slope amendment, the Contractor is required to make a best effort to meet the slopes shown in the Construction Plans. The application of compensating slope will not alter the specification allowing for a one-time request for adjustment of construction slope, as discussed in Section TS-17, One Time Beach and Dune Slope Adjustment of the Technical Specifications.

- 4.7 Payment Requests: The Contractor may request payment for hydraulic fill placement on a monthly basis. Payments shall be based on completed adjacent pay sections that have been accepted and approved by the Engineer. The Contractor will be eligible for the initial progress payment when a minimum of five (5) adjacent pay sections have been surveyed and accepted. The next payment and all future payments may occur when additional pay sections have been hydraulically filled and accepted by the Engineer. The Contractor shall submit to the Engineer for review, on a monthly basis, an Application for Progress Payment filled out and signed by Contractor covering the Work completed as required by the Contract Documents and accompanied by such supporting documentation as is required by the Contract Documents and also as the Engineer may reasonably require, which includes the results of any surveys and calculations.

TS-5 PAYMENT FOR HYDRAULIC PLACEMENT OF MARSH FILL

- 5.1 General: Costs associated with the project, including costs associated with, but not limited to, layout, surveying and reporting, water quality monitoring, debris removal, excavating, transporting, overflow weir devices, secondary dike construction, secondary containment leveling, site restoration and repairs, hydraulic marsh fill placement, and other Materials and Work shall be included in the Contract unit prices per cubic yard for Marsh Fill on the Bid Form (Bid Item No. 5 and/or Bid Item No. 23), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.
- 5.2 Payment Surveys: Payment will be based on the result of the comparison of the Marsh Fill Borrow Area pre-construction and as-built surveys. The Engineer will verify the pay quantities provided by the Contractor based on pre-construction and as-built surveys conducted by the Contractor and accepted by the Engineer. The Engineer, at its discretion, may verify the as-built survey results of the Contractor. The Engineer's survey will be used for payment purposes if, in the Engineer's opinion, a significant difference is found between the Contractor's as-built survey and the Engineer's survey. Check surveys may be required to ensure the fill tolerances are being met. However, check surveys will not be used to calculate volumes for payment.
- 5.3 Acceptance Notification: The notification of rejection or acceptance of fill placement will be based on written notification provided by the Engineer to the Contractor after the Engineer has reviewed the submitted calculations and survey data. Check surveys may be reviewed to ensure fill tolerances are being met prior to approving payment request. After the calculations and survey data have been received by the Engineer, the Engineer will have four (4) working Days to review the data and prepare a written response indicating whether the section(s) have been accepted or rejected, and the reason for rejection, if applicable.
- 5.4 Computation of Payment Volumes: The volume of material eligible for pay shall be the volumetric difference between the pre-construction and post-construction surveys of the Marsh Fill Borrow Area less over dredging in the borrow area, overfill in the placement area, and misplaced material volumes. The borrow area shall be surveyed according to the specifications outlined in section TS-34. The volume shall be calculated by comparing the surfaces of the pre-construction and post-construction surveys within the boundary of an area denoted by the Contractor that has been dredged and requested for payment. The volume calculation shall be performed by creating surfaces in Surfer, or approved equivalent software, using grid spacing of 50 feet or less with the grid extending no more than 100 feet

beyond the area of dredging. Surfaces shall be created using both north-south and east-west survey lines. The Kriging method shall be used to create the grid surface using an anisotropic value of 1 (ie equal weighting in all directions). Should check surveys show that the marsh fill template elevation has been exceeded, this fill volume exceeding the template elevation will be deducted from the requested payment cut volume. The Contractor shall provide their calculations of volumes along with their invoice to the Engineer. Payment recommendations will be based on computations made by the Engineer of the volumes placed.

- 5.5 Fill Tolerances: The maximum non-pay vertical tolerance below the template is 0.5 feet for the marsh. The required marsh fill template is +2.5 feet NAVD88. Any material placed above the maximum vertical tolerance above the template may be left in place at the discretion of the Engineer. Hydraulic fill placement must at least meet the 0.5 feet tolerance below the template and the minimum fill volume requirement. The Contractor shall fill any deficient section to meet, at a minimum:
- 5.5.1 The lower template tolerance everywhere on the constructed cross-section, and
- 5.5.2 Ninety-five percent (95%) of the fill volume for the acceptance section.
- 5.6 Payment Requests: The Contractor may request payment for hydraulic marsh fill placement on a monthly basis, based on measurements of the Marsh Fill Borrow Area. The Contractor shall submit to the Engineer for review, on a monthly basis, an Application for Progress Payment filled out and signed by the Contractor covering the Work completed as required by the Contract Documents and accompanied by such supporting documentation as is required by the Contract Documents and also as the Engineer may reasonably require, which includes the results of any surveys and calculations.
- 5.7 Infilling of the Borrow Area: It is recognized that infilling of the borrow area may occur during construction. The Contractor is not required to resurvey areas of the borrow area that have been previously surveyed for pay, except for the final as-built survey, which will not be used as a basis for payment unless requested by the Contractor and approved by the Engineer. The Contractor shall bear all risks associated with infilling of the borrow area prior to surveying of that section of the borrow area for payment.

TS-6 PAYMENT FOR PRIMARY CONTAINMENT DIKE

- 6.1 General: Costs associated with the project, including costs associated with, but not limited to, layout, magnetometer surveys, surveying and reporting, water quality monitoring, excavating, transporting, refilling of primary fill source, construction, and maintenance of the primary containment dike shall be included in the Contract unit price per linear foot of Primary Containment Dike (Bid Item No. 6 and/or Bid Item No. 24), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Any secondary dikes constructed by the Contractor will be at no cost to the Owner.
- 6.2 Payment Request: The Contractor shall survey the centerline of the primary containment dike along the lines shown in the Plans as a basis for payment. Check surveys perpendicular to the centerline of the primary containment dike at one thousand foot (1000') spacing are required for reference but will not be used as a basis for payment. Perpendicular profiles shall extend fifty feet (50') seaward of the seaward limit of the access channel/primary fill source for primary dike source and fifty feet (50') landward of the landward limit of the secondary fill source for the East Lobe. For the West Lobe, the profiles shall extend fifty feet (50') seaward of the seaward limit of the access channel/primary dike fill source and one hundred feet (100') landward of the landward toe of the primary dike. Seventy-five percent (75%) of the Contract linear footage will be paid to the Contractor for primary containment dike constructed on a monthly basis. The remaining twenty-five percent (25%) will be paid to the

Contractor when the marsh pay section contained by the section of primary dike has been accepted. However, all required maintenance of the primary containment dike shall be performed by the Contractor at no cost to the Owner.

TS-7 PAYMENT FOR SAND FENCING

This work shall consist of supplying all sand fence material and installing the sand fence in accordance with the Plans and Specifications. All costs connected with the sand fence will be paid for at the contract unit price per linear foot of Sand Fencing (Bid Item No. 7 and/or Bid Item No. 16 and/or Bid Item No. 20), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. The length of sand fence for payment shall be based on the installed length of sand fence (i.e. not the roll length by number of rolls installed). The Contractor shall be paid for the landward (north) and seaward (south) sides of the 30 foot section overlaps. Splice overlaps between adjacent rolls of sand fence shall not be eligible for payment. The Contractor shall survey the extents of each sand fence section shown in the Plans as a basis for payment. The Contractor may request payment for the installation of sand fencing on a monthly basis.

TS-8 PAYMENT FOR SETTLEMENT PLATES

This Work consists of furnishing and assembling the materials needed to construct, layout, install, and survey settlement plates in accordance with these Specifications and the project Plans or as directed by the Engineer. All costs connected with the settlement plates will be paid for at the Contract unit price per each Settlement Plate (Bid Item No. 8 and/or Bid Item No. 17 and/or Bid Item No. 21 and/or Bid Item No. 25), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. The Contractor may request payment for the installation of settlement plates on a monthly basis.

TS-9 PAYMENT FOR TURBIDITY CONTROL STRUCTURE – SAND FLAT

This Work consists of furnishing and assembling the materials needed to construct, layout, and install a temporary turbidity control structure in accordance with these Specifications and the project Plans or as directed by the Engineer. All costs connected with the turbidity control structure within the Plans will be paid for at the Contract unit price per lump sum for Bid Item No. 9 and/or Bid Item No. 18, “Turbidity Control Structure – Sand Flat”, which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Seventy-five percent (75%) of the price will be paid to the Contractor after the structure is installed in accordance with these Specifications and the project Plans or as directed by the Engineer. Twenty-five percent (25%) of the price will be paid to the Contractor upon removal of the structure.

TS-10 PAYMENT FOR PIPELINE CONVEYANCE CORRIDOR CROSSINGS – MISSISSIPPI RIVER TO FILL AREA

This Work consists of furnishing and assembling the materials needed to construct, layout, and install the temporary Mississippi River levee, Hurricane Protection levee, Highway 11, LA Highway 23, Empire Harbor Canal, and Empire Marsh and Rock Revetment crossings in accordance with these Specifications and the project Plans or as directed by the Engineer. Installation of the sediment pipeline at these crossings will require trenching and installation of the sediment pipeline and any associated ballast structure. All costs connected with this work will be paid to the Contractor at the Contract lump sum price for Payment for Pipeline Conveyance Corridor Crossings – Mississippi River to Fill Area (Bid Item No. 10), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.

TS-11 PAYMENT FOR NAVIGATIONAL CROSSINGS

This Work consists of furnishing and assembling the materials needed to construct, layout, and install temporary sediment pipeline in the five (5) locations shown in the Plans, which include the Empire Waterway Crossing, to facilitate navigation in accordance with these Specifications. All costs connected with the navigational crossings will be paid to the Contractor at the Contract unit price per each Navigational Crossing (Bid Item No. 11), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Seventy-five percent (75%) of the price will be paid to the Contractor after temporary sediment pipeline is installed to facilitate navigation at the locations of the navigational crossings shown in the Plans in accordance with these Specifications or as directed by the Engineer. Twenty-five percent (25%) of the price will be paid to the Contractor upon removal of the temporary sediment pipeline from the Empire Waterway and elevations within the Empire Waterway are within 0.5 feet of pre-Scofield Island (BA-40) project construction elevations.

TS-12 PAYMENT FOR BOOSTER PUMP LOCATIONS

This Work consists of furnishing and assembling the materials needed to layout and install any booster pumps in the locations shown in the Plans in accordance with these Specifications. All costs connected with the booster pump installations will be paid for at the Contract price per lump sum for Booster Pump Locations (Bid Item No. 12), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Seventy-five percent (75%) of the price will be paid to the Contractor at the lump sum price for Booster Pump Locations after booster pumps are installed at the locations shown in the Plans in accordance with these Specifications or as directed by the Engineer. Twenty-five percent (25%) of the price will be paid to the Contractor upon removal of the booster pumps from the Empire Waterway and elevations within the Empire Waterway are within 0.5 feet of pre-Scofield Island (BA-40) project construction elevations.

TS-13 PAYMENT FOR SIGNAGE

This Work consists of furnishing and assembling the materials needed to construct, layout, and install temporary shoal and warning signs in accordance with these Specifications and the project Plans or as directed by the Engineer. All costs connected with the signs within the Plans will be paid for at the Contract lump sum price for Bid Item No. 13, "Signage", which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work. Seventy-five percent (75%) of the price will be paid to the Contractor after the signs are installed in accordance with these Specifications and the project Plans or as directed by the Engineer. Twenty-five percent (25%) of the price will be paid to the Contractor upon removal of the signs. Payment for removal shall only be for those signs that were installed as part of this bid item.

TS-14 PAYMENT FOR SIGNAGE REMOVAL

This Work consists of furnishing equipment and personnel required to remove temporary signage previously installed during either the Shell Island East (BA-110) project or the Scofield Island (BA-40) project. All costs connected with the removal and disposal of temporary signage within the Plans will be paid for at the Contract lump sum price for Bid Item No. 14, "Signage Removal", which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.

TS-15 LAYOUT FOR HYDRAULIC FILL PLACEMENT

15.1 Profile Lines: The Contractor may use any control deemed necessary for the layout of Work. The Contractor may establish any profile cross-sections deemed necessary for the layout of Work. The profile lines and azimuths to be surveyed are shown in the Plans.

- 15.2 Contractor Acceptance of Survey Control: No physical monumentation of the pay or acceptance profile lines currently exist on the island. The Contractor is required to establish survey control for each pay or acceptance profile line sufficient for the construction of the project. The Contractor shall immediately contact the Engineer if any discrepancies are discovered in any of the information presented concerning all survey control. If the Engineer is not contacted by the Contractor it is understood that the Contractor agrees with all information presented in the Plans related to survey control information.
- 15.3 Surveyor: All surveys shall be certified by a surveyor or professional engineer registered in the State of Louisiana. The licensed professional will be responsible for all survey work. The licensed professional is not obligated to perform the field work but shall perform sufficient oversight to exhibit responsible charge. The professional engineer or land surveyor must be a primary employee of a firm that is registered to perform survey work by the Louisiana Professional Engineering and Land Surveying board.
- 15.4 Work Layout: Utilizing control data provided by the Engineer and verified by the Contractor, the Contractor shall complete the layout of the Work and shall be responsible for all measurements that may be required for the execution of the layout of the Work, subject to such modifications as the Engineer may require to meet changed conditions or as a result of necessary modifications to the Contract Work. The Contractor shall furnish, at their own expense, such stakes, templates, platforms, Equipment, tools, Material, and all labor as may be required in laying out any part of the Work from the survey monuments, control data, and elevations provided by the Engineer and verified by the Contractor, the cost of which is included in the unit cost for fill placement. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks unless and until they are no longer needed to construct the project. All temporary marking stakes (including grade stakes) placed by the Contractor in the beach/dune and marsh must be completely removed upon completion of the project.
- 15.5 Site Layout Prior to Construction: Prior to the initiation of heavy construction, excavation, dredging, or disposal activities within 500 feet of the previously listed activity, the Contractor shall survey and layout the following items: the project baseline, landward limit of dune, centerline and extents of the primary containment dike, and extents of the access channels. The layout shall be surveyed and staked adequately to depict the limits and location of the Work. Layout stakes shall include grade information (i.e., fill heights, vertical tolerance) for the primary containment dike. The Contractor shall maintain stakes and grades for the duration of the construction Contract to the Engineer's satisfaction. The Contractor shall also coordinate with utilities, landowners, and leaseholders as required by this Contract to ensure identification, location, and marking of all public and private infrastructure that may exist at the Project Site.
- 15.6 Survey Monumentation: Permanent markers or survey monuments will not be disturbed, damaged, or destroyed by the Contractor. Disturbed, damaged, or destroyed survey monuments will be replaced by the Owner, at their discretion, and the expense of replacement will be deducted from any amounts due, or to become due, to the Contractor.
- 15.7 Survey Datum: The horizontal datum for the baseline provided in the Plans is in feet referenced to the Louisiana South State Plane Coordinate System (NAD, 1983). The vertical datum for the elevations provided in the Plans is in feet referenced to the North American Vertical Datum of 1988 using the 2009 Geoid (NAVD of 1988, Geoid 2009).

TS-16 HYDRAULIC PLACEMENT OF FILL

- 16.1 Fill Placement Requirements: All marsh, sand flat, and beach/dune fill excavated from the borrow areas shall be transported to and hydraulically deposited on the beach/dune, sand flat, or marsh within the lines and grades shown in the Plans for the type of fill being placed, unless otherwise provided for

herein or directed by the Engineer. The topography of the fill area is subject to change and the elevations on the beach at the time the Work is done may vary from the elevations shown in the Plans. The Contractor is to place the hydraulic fill in the fill area in such a manner as to establish a uniform beach/dune, sand flat, and/or marsh platform between adjacent pay or acceptance profile lines. Sections located between pay or acceptance profiles will not be underfilled, as defined in the Contract Documents. The Contractor shall maintain and protect the fill and primary containment dike in a satisfactory condition at all times until final completion and Acceptance of the Work.

- 16.2 Right to Vary the Filled Area: The Owner reserves the right to vary the width or grade of the beach/dune and/or the marsh fill elevation from the lines and grades shown in the Plans or observed at the Project Site in order to establish a uniform fill area between adjacent pay or acceptance profile lines or for the entire length of the project, as shown in the Plans for the project. The hydraulic fill cross-sections shown in the Plans are for the purpose of estimating the amount of hydraulic fill needed and will be used by the Engineer in making any change in the lines and grades.
- 16.3 Control of Fill: The Contractor shall retain placed fill within the fill template until Acceptance of the pay or acceptance section. The Contractor shall construct a primary containment dike along the landward (northern) limit of the marsh platform as shown in the Plans. The Contractor may construct secondary dikes at their discretion at other locations within the marsh or sand flat platform, including the boundary between the marsh platform and the dune/beach to control the fill. These secondary dikes must be degraded prior to final acceptance of the project. Secondary dikes and spreader and pocket pipe can be used as necessary to prevent gulying and erosion of the beach/dune fill, to retain the hydraulic fill on the beach within the limits of the hydraulic fill template cross-section, and to control water turbidity. Secondary dikes shall be constructed along the Gulf of Mexico waterline, to direct the pipeline discharge longitudinally along the beach to avoid transverse gulying direct from the discharge point to the Gulf of Mexico and to build the dune crest to the design grade of +8.0 feet NAVD88. Secondary dikes may be used but will be at no cost to the Owner.
- 16.4 Construction Elevations and Slopes: The Plans and Contract Documents for the project delineate a construction dune crest elevation of +8.0 feet NAVD88, a landward construction dune slope of one (1) foot vertical to thirty (30) feet horizontal, a seaward construction dune slope of one (1) foot vertical to twenty-five (25) feet horizontal. The Plans and Contract Documents for the project delineate a marsh and sand flat platform elevation of +2.5 feet NAVD88. The marsh fill area will be inspected after a minimum of thirty (30) Days subsequent to material placement to evaluate initial settling, completeness, elevation, and width. If the inspected area has undergone settlement in excess of the allowable tolerances, the Engineer may require the Contractor to place additional material prior to Acceptance.
- 16.5 Uniform Fill Areas: The filled areas between the pay or acceptance profiles will be graded, dressed, and uniform in dimension. Sections between pay or acceptance profiles shall be filled to a minimum of ninety-five percent (95%) of the beach/dune and sand flat and marsh fill volumes, considered independently, based on the fill templates shown in the cross-sections of the Plans, and to the minimum tolerance everywhere. The constructed grades between pay or acceptance profiles, including the dune crest and primary dikes, will be uniform with parallel and straight contour lines, indicating that the Contractor has constructed a uniform (non-cusped) cross-section between the profile lines to the appropriate elevations (+8.0 feet NAVD88 beach and dune, +2.5 feet NAVD88 marsh, and +5 feet NAVD88 primary containment dike) and widths. In areas where the beach section between pay lines is pie shaped, check (non-pay) surveys will be used to determine if the section has been uniformly filled and as a basis for acceptance of the adjacent pay lines. These intermediate lines will not be used for pay purposes.
- 16.6 Dressing Beach/Dune Fill: Upon completion of all filling operations within an acceptance section, and prior to surveying for payment, the beach/dune and sand flat fill shall be graded and dressed so as to eliminate any undrained pockets, ridges, and depressions in the hydraulic fill surfaces. The Contractor

shall drag a pipe for this task. The Contractor is to grade and dress the beach/dune fill in such a manner as to establish a uniform dune crest width and slopes between adjacent pay profile lines. Banks or scarps caused by wave erosion shall be eliminated during this task. Grading and other construction equipment will not be permitted outside the project limit as shown in the Plans except for ingress or egress of the site.

- 16.7 Beach/Dune Fill Terminus: The Contractor shall construct a fill taper at each end of the fill area as indicated in the Plans.
- 16.8 Removal of All Debris from the Fill Area: Prior to placement of fill, the Contractor shall remove all snags, driftwood, trash, and other items, as directed by the Engineer, from the beach/dune, sand flat, and marsh fill areas. All materials removed shall be disposed of in an appropriate and legal manner and at the expense of the Contractor. No separate payment for removal and disposal of these materials shall be made. All costs shall be incorporated into the unit costs for beach/dune fill and marsh fill.

TS-17 ONE-TIME BEACH/DUNE SLOPE ADJUSTMENT

Should the Contractor encounter difficulty attaining the beach/dune slope delineated within the Plans, the Contractor may request a change in construction slope. This request must be provided to the Engineer in writing. The reason for the request for a change in construction slope must be clearly stated and an alternate slope must be provided. Based on this request and at the Engineer's discretion, the construction slope may be altered. The placed volume amounts for each payment section will remain unaltered by this change in slope. No additional compensation will be provided to the Contractor. A request for a change in construction slope may be made only once during the construction of this project, following which the Contractor will be required to maintain the revised construction slope throughout the remainder of the project. A set of revised construction drawings delineating the change in construction slope and new slope break stationing will be provided to the Contractor within five (5) working Days of the Engineer's Acceptance of the change in construction slope.

TS-18 DREDGE LOCATION CONTROL

- 18.1 Continuous Electronic Positioning on the Dredge: The Contractor is required to have in continuous operation on the dredge electronic positioning equipment that will accurately and continuously compute and plot the position of the dredge. A geographic positioning system (GPS), Differential Global Positioning System (DGPS), or equivalent, shall be used to maintain precise positioning of the dredge. Whenever dredging operations are underway, the location of the dredge shall be continuously monitored and its position within the borrow area shall be recorded in the Louisiana South State Plane Coordinate System NAD 1983 (Lambert Conformal Conic) at intervals not to exceed thirty (30) seconds. The Contractor shall be running a dredge location and management program, DREDGEPACK or equivalent. The Owner and Engineer shall have unrestricted access to the bridge GPS and depth recording units to enable onboard real time review at anytime during construction. Plotters shall also continuously record, at intervals not to exceed thirty (30) seconds, the X, Y, Z (with respect to NAVD88) position of the dredge's excavator. Such fixes, and the accompanying plots, shall be furnished to the Engineer daily in an electronic format as part of the Daily Progress Report. Daily Progress Reports will be provided to the Engineer the next day, as discussed in Section GP-10 of the General Provisions. All vertical measurements shall be tide/river stage corrected and reported in NAVD88; predicted tides or water levels will not be accepted. The dredge operator should have visual controls that depict the location and depth of the dredge's excavation device within the specified borrow area. The electronic positioning equipment shall be calibrated, maintained, and operated so that the maximum error for the fixes recorded do not exceed tolerances in the horizontal position (± 3 feet) or vertical position (± 0.1 foot). The location of the master antenna on the dredge and the distance and direction from the master antenna to the dredge's excavation device shall be reported in the Daily Progress Reports. Mobilization, progress, and/or final payment to the Contractor will be withheld until all of the required information is provided to the Engineer.

- 18.2 Tides/River Stage: The Contractor shall use measured tides or river stage for all hydrographic surveying and tide/stage corrections of the cutterhead or drag arms (predicted tides are not acceptable). Measured tides shall be along the open Gulf of Mexico coast and not within a navigation channel (such as Empire Waterway) or bay (such as Bastian Bay, Shell Island Bay, etc.) unless a tide study conducted by the Contractor and Accepted by the Engineer supports the use of tide gages in the navigation channels or in the bay. A stand alone tide gauge located in the Gulf shall be lit and follow USCG regulations for markings, lighting and notification to the public.

TS-19 DREDGING ORDER OF BORROW AREAS

The Contractor may determine the order of dredging within the borrow areas. The only stipulation during construction is that the Contractor dredge each section of the borrow areas as completely as practical prior to dredging other sub-sections of the borrow areas. The Contractor shall dredge one borrow area entirely prior to relocating to another borrow area. The Contractor shall submit a request, in writing, to the Engineer prior to relocating to another borrow area.

TS-20 BORROW AREA AND SEDIMENT PIPELINE BUOYS AND MARKERS

- 20.1 Borrow Area Buoys: No lighting is required for the marking of the perimeter of the borrow areas. The dredge, anchor buoys, and floating dredge lines in the area must be marked in accordance with U.S. Coast Guard (USCG) Navigation Rules.
- 20.2 Sediment Pipeline: All sediment pipeline markers must meet USCG regulations. The Contractor shall obtain a temporary Permit from the USCG for all buoys or markers to be placed in the water prior to installation. The Permit application shall state the position, color, and the dates to be installed and removed for all sediment pipeline markers and be submitted to the USCG. Sediment pipeline markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids. Copies of application and Permit shall be submitted to the Owner and Engineer seven (7) days prior to commencement of dredging operations. Signal lights, signage, and markings shall be utilized to designate the pertinent Work Areas including, but not limited to, the conveyance corridors and sediment pipelines and shall be displayed and operated in accordance with the regulations of the USCG.
- 20.2.1 Submerged Sediment Pipeline Markers: Any submerged sediment pipeline not covered by at least 20 feet of water must be marked with yellow buoys displaying a yellow 2.5 second flashing light. The lights must have a one mile nominal range and should be spaced according to USCG regulations. The lighted buoys shall be maintained by the Contractor in the proper location, floating, upright, and with functioning lights throughout the duration of the project. Electronic positioning shall be employed to set the buoys and to check the positional integrity of the buoys on a daily basis. The results of these checks shall be reported in the Daily Progress Report. The Contractor shall submit a Private Aids to Navigation Application for the required aids to navigation, as discussed in Section SP-6 Deliverables. Latitude and longitude coordinates for every mile of the submerged pipeline shall be submitted to the Engineer and U.S. Coast Guard so that it can be charted. All submerged sediment pipelines installed within the navigable channel shall be marked with fluorescent orange buoys and signs stating "DANGER SUBMERGED PIPELINE" in accordance with the USCG regulations. "DANGER SUBMERGED PIPELINE" signs shall also be placed at the beginning and end of all submerged sediment pipelines and at all abrupt changes of direction. Unless otherwise specified by the USCG, submerged sediment pipelines are considered to require special marks and shall have USCG approved flashing yellow all-around lights.

- 20.2.2 Floating Sediment Pipeline Markers: Should any portion of the sediment pipeline not rest on the mudline, it will be considered a floating sediment pipeline and shall be required to be made visible on the water's surface and clearly marked. In no case shall the sediment pipeline be allowed to fluctuate between the surface and the bottom or lie partly submerged. Lights shall be installed on the floating sediment pipeline as required by the USCG. The lights shall be supported either by buoys or by temporary piling. Where the sediment pipeline does not cross a navigable channel, flashing yellow all-around lights shall be spaced and installed in accordance with the USCG regulations.
- 20.2.3 Sediment Pipeline Channel Crossing Markers: Wherever a submerged sediment pipeline crosses a navigable channel, canal, or launch/dock egress, temporary "NO ANCHORING OR DREDGING, PIPELINE CROSSING" signs shall be posted on each bank/shoreline or at the limits of the navigable channel, canal, or launch/dock egress, delimiting the sediment pipeline crossing area. Markers shall be constructed to the dimensions shown in the Plans or as approved by Engineer. Timber piles, where used, shall conform to the requirements of TS-30.2.2. Timber blocking installed horizontally between timber piles shall be pressure treated pine or fir with a minimum length equal to that of the marker width. All nuts, bolts, and washers used in marker construction shall be hot dipped galvanized.
- 20.2.4 Sediment Pipeline Navigational Crossing Markers: Wherever a sediment pipeline is buried to provide navigational access across the pipeline, temporary "BURIED SEDIMENT DELIVERY PIPELINE – CROSS AT YOUR OWN RISK" signs shall be posted on each side of the navigable crossing, delimiting the navigational crossing area. Markers shall be constructed to the dimensions shown in the Plans or as approved by the Engineer. Timber piles, where used, shall conform to the requirements of TS-30.2.2. Timber blocking installed horizontally between timber piles shall be pressure treated pine or fir with a minimum length equal to that of the marker width. All nuts, bolts, and washers used in marker construction shall be hot dipped galvanized.
- 20.2.5 Temporary Pipeline Markers: Temporary pipeline markers shall be placed and maintained during construction at the toe of each levee crossing, on each side of the gravel road crossing, and at the rock revetment crossing as shown in the Plans. The markers shall be in line with the sediment pipeline crossing indicating owner, size, number of lines, contents, and the address for contacting the owner. The temporary pipeline markers shall be made in accordance with Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 1015.04 (b) for sign panels and Standards Specification 1015.02 (a) (2) & (3) for posts, and as shown in the Plans. The Contractor shall submit a proposed design with material and details in the Work Plan for approval.
- 20.2.6 Installation: The sediment pipeline markers shall be lighted for twenty-four (24) hour operation. The Contractor shall notify the USCG in accordance with subparagraph "Notice of Intent to Dredge" as specified in SP-6.3.1. The notification shall contain maps and descriptions of lighted sediment pipeline markers for inclusion in the Notice to Mariners.
- 20.2.7 Operation and Maintenance: The Contractor shall operate and maintain all the sediment pipeline markers. Sediment pipeline markers shall be checked daily for any that may be missing, damaged, incorrectly positioned, or have inoperable lighting. Missing, damaged, or inoperable markers shall be replaced within twenty-four (24) hours. Should markers leave positioned locations, the Contractor shall relocate immediately. If any of the buoys are not maintained in the proper location, the Contractor shall cease dredging until the buoys are maintained, replaced, or repositioned. Failure to maintain buoys will result in a withholding of retainage from payments to the Contractor until the buoys meet permit, Coast Guard, and Contract Document requirements and are satisfactory to the Engineer.

- 20.2.8 Removal: The Contractor shall remove all sediment pipeline markers, piles, chains, anchors, etc. from the Work Area upon completion of this Project.

TS-21 EXCAVATION

- 21.1 Potential Differing Borrow Area Characteristics: The characteristics of the materials in the borrow areas may be as generally indicated by the sediment boring logs and grain size distribution curves contained in Appendix IV. The material found in each of the borrow area sediment core borings (vibracores) is indicative only of the material at that discrete location. The Contractor should be aware that it is possible for material of differing characteristics to be present in the borrow area, including material differing from that contained in the vibracores.
- 21.2 Excavation: The borrow areas available for use on this project are borrow areas (MR-A, MR-B, and MR-E) located within the Mississippi River. These borrow areas can be used for beach, dune, and sand flat fill. MR-E has been dredged as part of the Scofield Island Restoration (BA-40) project and the Shell Island East Berm Barrier Island Restoration (BA-110) project. Available updated borrow area bathymetry of any dredged sections of the borrow area will be provided to the Contractor three (3) days prior to the pre-construction meeting if available. An offshore borrow area (35-E) has also been designated for marsh fill only. The locations of the borrow areas are shown in the Plans.
- 21.3 Borrow Area Excavation Limitations: All excavation shall be performed within the horizontal and vertical limits of the borrow areas shown in the Plans. The permits have a three-foot allowable disturbance depth specified for all cut depths in the borrow area. The equipment may not extend beneath this disturbance depth. The material located below the indicated dredge depth may not be suitable for placement. Compliance with permit conditions will be based on the excavated after dredge (AD) survey. The Contractor is responsible for ensuring that placing his equipment three feet below the permitted depth does not result in permit violations based upon the after dredge survey bathymetry being below the permitted depth. The Contractor will be required to certify in each Daily Progress Report that the excavation has occurred within the limits of the Plans. The Contractor shall submit to the Engineer any check surveys performed in the borrow areas to verify that the final bathymetry is not below the permitted depth, though these surveys will not be considered to be the as-built surveys. If excavation occurs outside of the permitted borrow area or below the depth as shown in the Plans, the Contractor will pay any and all permit fines for the permit violation. If the Contractor does not pay any costs, fines, or other expenses related to dredging outside the borrow area limits and/or for permit violations, the Engineer will withhold retainage from payments due to the Contractor from the Owner, or they may be recovered from the Contractor's Bond to cover all costs, fines, or expenses related to excavating outside borrow area limits and/or deeper than allowed within the borrow area. The Engineer may deduct quantities of material dredged outside of and/or below the allowable dredge depths from pay quantities based on the as-built borrow area survey.
- 21.4 Borrow Area Cut Sequence and USACE Restrictions: Excavation of sediment from the borrow areas shall be in accordance with these Specifications and in conformity to the lines, grades, and elevations shown in the Plans or as directed by the Owner and Engineer. The proposed Borrow Areas MR-A, MR-B, and MR-E in the Mississippi River have been designed based on USACE restrictions. Side slopes of excavation must be no steeper than 1V:5H, per USACE restrictions. Borrow Area 35-E does not have a side slope though natural sloughing of material will not be considered a permit violation.

River excavation must proceed from landside to riverside limits to minimize the possibility of overburden failure of the bank per USACE regulations. Excavation along the landside limits is restricted by USACE regulations requiring that a minimum 750 foot buffer be maintained from the projected excavation top of slope intersection with the levee landside ground surface elevation to the levee centerline, as referenced in Appendix XVI. In the event the borrow area progress surveys indicate this restriction is not being achieved, the Engineer reserves the right to relocate the Contractor within the

borrow area to achieve the necessary buffer. Relocations shall be at no additional cost to the Owner and shall not be a basis of claim for additional costs or time.

Any damage to the levee, batture, and/or bank resulting from the Contractor's activities shall be repaired at the Contractor's expense. All disturbed areas on the levee crown and slopes shall be restored to pre-construction conditions and to the satisfaction of the Buras Levee District and Plaquemines Parish Government. The Contractor shall assure that work does not impede or interfere with navigation on the Mississippi River and shall maintain ongoing coordination with the River Pilots Association and the USCG.

The Contractor shall also supply to the Engineer weekly updates to the proposed borrow area cut sequence supplied in the Work Plan as specified in SP-10.5. These updates shall show previous excavations within the borrow areas since beginning construction in addition to any planned excavations for the next seven (7) days.

For dredge vessels wherein the Code of Federal Regulations (CFR) does not require a USCG licensed U.S. Merchant Marine Officer for operations, qualified person(s) shall be required to stand watch and monitor the required marine radio channels for vessel-to-vessel communications for passing as well as the operational safety of the dredge, Plant, and supporting vessels during mobilization, construction, and demobilization.

- 21.5 Uniform Excavation: To the greatest extent practicable, all excavation shall be performed in a uniform and continuous manner so as to avoid creating multiple holes, valleys, or ridges within the borrow area. The borrow area shall be dredged to maximize the removal of suitable material from each sub-area of the borrow area.
- 21.6 Acceptable and Unacceptable Materials: The Contractor will NOT be paid for any material placed in the fill areas that comes from a source other than the authorized borrow areas.
- 21.6.1 Beach/Dune Fill Area: The "Landward Toe of Dune", which appears in the Plans, marks the northern boundary of the beach/dune fill area. Unacceptable material also includes hard clays, debris, and rocks or rubble larger than 1.9 mm in diameter. If the Engineer has reason to believe that the material being placed in the beach and dune fill area does not meet the above standards, the Engineer may require the Contractor to collect sand samples under the Engineer's direction and supervision and at the Contractor's expense. The sieve analysis will be conducted by an independent, pre-approved Laboratory.
- 21.6.2 Marsh Fill Area: Any beach/dune fill material incidentally dredged from the borrow area and placed within the marsh fill template may be left in place at the discretion of the Engineer.
- 21.7 Encountering Unacceptable Material in the Borrow Area: Unacceptable material shall not be placed in the fill areas. The Contractor shall continuously monitor the fill material for unacceptable materials in the fill being placed. If unacceptable materials are encountered during dredging, the Contractor shall immediately cease operation and relocate to another portion of the borrow area to eliminate the unacceptable materials. The Contractor shall immediately notify the Engineer verbally and report the encounter with the unacceptable materials in the Daily Progress Report, providing location in State Plane Coordinates of the area of the unacceptable materials. Unacceptable materials that are excavated and placed in the fill areas may be required to be removed from the fill areas by the Contractor, at the Contractor's own cost. If the Contractor fails to remove the unacceptable materials to the satisfaction of the Engineer, such 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 their Bond. The Engineer has the authority to determine if the quality of the material being placed in the fill areas is acceptable. If the Engineer makes a specific determination that material being placed is unacceptable, the Contractor will adjust their construction operation to avoid this material. This does not

relieve the Contractor of responsibility for all placed material, including unacceptable material, rock, rubble, and debris.

- 21.8 Character of Material Within the Borrow Areas: The descriptions of the material are based on remote site investigations and site-specific core borings. The material descriptions are provided in the appendices of this section and only describe the materials obtained from those investigations. The Contractor is solely responsible for any interpretation or conclusions drawn there from. Based on limited information provided by the core borings, the materials found within Borrow Areas MR-A, MR-B, and MR-E consist of fine sand. The material within borrow area 35-E consists of soft to very soft clay.
- 21.9 Preservation of Historical, Archeological, and Cultural Resources: A cultural resource study has been conducted within the borrow areas. Those areas with magnetic anomalies that have been judged to possibly be of historical, archeological, or cultural value have been excluded from the borrow areas. If during construction activities the Contractor observes items that may have historical, cultural, or archeological value, the Contractor shall immediately cease all activities that may result in the destruction of these resources and shall prevent their employees and Subcontractors from trespassing on, removing, or otherwise damaging such resources. Such observations shall be reported immediately to the Engineer, Owner and Resident Project Representative so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall report any observed unauthorized removal or destruction of such resources by any person to the Engineer and appropriate State of Louisiana authorities. The Contractor will relocate the dredge to another area within the borrow area and resume construction of the project, and not return to the site in question until State authorities have rendered judgment concerning the artifacts of interest.
- 21.10 Preservation of Existing Natural Resources: Equipment operators shall be instructed by the Contractor with regards to avoiding damage to the submerged lands and existing vegetation outside the fill areas as marked in the Plans during all phases of the Work.
- 21.11 Dredge Mobilization/Demobilization Notification: The Contractor shall notify the Engineer at least three (3) Days in advance of the date the dredge and other Equipment will be mobilized and demobilized to and from the project area.

TS-22 TRANSPORT OF EXCAVATED MATERIALS

- 22.1 Hydraulic Placement of Fill: All beach/dune and marsh fill shall be placed hydraulically. The method of transport and hydraulic placement will be at the discretion of the Contractor. However, methods and Equipment will have to comply with all permit, production, environmental, and Contractual requirements.
- 22.2 Scows and Vessels: All scows and vessels must be kept in good condition, the coamings repaired, and the pockets provided with proper doors or appliances to prevent leakage of material.
- 22.3 Pipeline Transport of Fill: If a pipeline is used to transport material from Borrow Area 35-E, the pipeline seaward of the beach landing shall be submerged except at the dredge, booster pumps (if required), and at oil and gas infrastructure crossings (if required) unless otherwise specified in the Plans. In these instances, the pipeline shall be floated.

A submerged pipeline corridor was specified for the Scofield Island (BA-40) project extending south from Empire along the Empire Waterway. Due to the close proximity and similarities of the current project, the Contractor may choose to utilize the submerged pipeline corridor to facilitate dredging of borrow areas MR-A, MR-B, and/or MR-E during placement of beach/ dune or sand flat fill. Regard-

less, it is the Contractor's responsibility to obtain all easements, right of ways, and permits required along with conducting any field investigations necessary.

Sediment pipelines that cross a navigable channel must be submerged and resting on the bottom. The top of any submerged sediment pipeline and any anchor securing the submerged sediment pipeline shall be no higher than the project depth for any navigation channel in which the submerged sediment pipeline is placed. Refer to TS-23 for additional requirements for the conveyance corridor crossings at the Empire Harbor Canal and navigational crossing along the Empire Waterway. Submerged sediment pipelines and any anchors securing the sediment pipeline shall be marked in accordance with USCG requirements and TS-20 of these Specifications. The depth of any sediment pipeline crossing a navigation channel shall be submitted to the USCG for publication. A description of sediment pipeline placement shall be included in the Work Plan.

The Contractor shall perform bi-weekly underwater inspection of the submerged sediment pipeline to detect alignment, stability, and integrity issues with the sediment pipeline. At a minimum, the inspections shall take place where the sediment pipeline is installed within the Mississippi River, unburied segments in the vicinity of the Empire Harbor Canal, rock revetment crossing at the Empire Marsh, unburied segments in the vicinity of the navigational crossings and booster pump locations, and from the Empire Waterway to the fill placement area. This may be accomplished in combination by multibeam sonar, sidescan sonar, single beam sonar, remote underwater video, diver, and/or other approved methods. The surveys shall be repeatable and compared to prior surveys for any alignment, stability, and integrity issues. Initial underwater inspection survey shall be conducted following sediment pipeline installation and prior to utilization of the sediment pipeline for the transport of dredged sediments. Plots depicting the comparisons of successive inspection surveys to the initial inspection survey shall be submitted to the Owner and Engineer within seven (7) days of the most recent survey. The Contractor shall submit a survey plan for submerged sediment pipeline inspection in the Work Plan for approval by the Owner and Engineer. The presence of any such issues or deviations shall be required to be documented, locations plotted, and reported immediately.

Conveyance and transport corridors have been identified in the Plans. Deviations from or relocation of these corridors are subject to review and approval by the State and Federal regulatory agencies. Should the Contractor request a deviation or relocation of these corridors, it shall be the responsibility of the Contractor to apply for and obtain the required Permit modifications from the Louisiana Department of Natural Resources, Office of Coastal Management and the U.S. Army Corps of Engineers in addition to approvals from the applicable property owners, oyster lease holders, and/or utility operators. The Contractor shall provide the approved permit modifications and approvals to the Owner and Engineer prior to installing the sediment pipeline and/or booster pumps.

No use of spud-type anchors or driving of piles shall be allowed within fifty (50) feet of pipelines. No anchoring shall be allowed outside of the approved Work Area unless approved by the Owner. If pilings are used for anchorage, the pilings shall be well marked and removed in their entirety upon completion of the Contractor's operations. If piles cannot be removed completely, they must be removed to ten (10) feet below the existing mudline.

Any damages to private or public property resulting from the Contractor's operations shall be repaired by the Contractor at his expense. Costs incurred by the Contractor for compliance with this section should be included in the mobilization and demobilization cost in the Bid Price for each applicable section.

- 22.4 Submerged Pipeline Corridors: Two (2) submerged pipeline corridors are permitted for use in transporting dredged material via pipeline from Gulf Borrow Area 35-E to the marsh fill areas. These corridors were designed to avoid potential cultural resources, existing infrastructure, and significant magnetic anomalies. These corridors were delineated based on conditions at the time of survey and may not represent conditions at the time of construction.

One (1) submerged pipeline corridor is to be used for placement of the dredge slurry pipeline between the East Lobe and the West Lobe. This corridor has been permitted for submerged pipeline placement and adjacent oyster leases have been extinguished.

- 22.5 35-E Pipeline Corridor Survey: The pipeline corridor from Borrow Area 35-E to the marsh fill areas shall be surveyed weekly to determine if there are any leaks in the submerged line. The weekly check survey shall consist of two (2) lines running the length of the submerged pipeline. If a leak, or elevated area, is detected, the area in the immediate vicinity of the mound shall be surveyed at a grid spacing of no more than 50 feet (survey lines shall be orientated north-south and east-west). The survey lines shall extend a minimum of 100 feet from the edge of the mound. The results of the gridded survey will be used to calculate the volume of marsh fill material contained in the mound, which will be deducted from the cut volume for payment purposes.
- 22.6 A bathymetric plot and an electronic copy of the Borrow Area 35-E pipeline corridor survey shall be furnished to the Engineer in a format provided in Appendix III (preferably format #3). Bar check results, the survey scroll or BIN file, and verification of real-time tide corrections shall also be furnished to the Engineer. Bathymetric surveys not tide corrected in real-time will not be accepted. The bathymetric survey shall be performed using a Model 449 Innerspace depth sound recorder or equivalent using a single beam at 209 KHz. Hydrographic surveys shall be performed in accordance with EM 1110-2-1003, dated January 2002. A final as-built pipeline corridor survey shall be conducted and the data submitted prior to payment for as-built surveys.
- 22.7 Pipeline Leaks: The Contractor shall maintain a tight discharge pipeline at all times. The joints shall be so constructed as to preclude spillage and leakage. Leaks shall be promptly repaired. The Contractor will transport the Engineer to the leak repair site for visual inspection, if so requested by the Engineer. Failure to repair leaks or change the method of operation that is resulting in leakage and wastes dredged material or exceeds turbidity and water quality standards during transport to the discharge site will result in a requirement to suspend dredging operations and require immediate repair or change of operation to prevent leakage as a prerequisite to the resumption of dredging.
- 22.8 Submerged Line Approvals: Should the Contractor choose to use an alternate submerged line from the borrow area to the placement area, the Contractor shall obtain all easements, rights of way, and permits required. The Contractor is required to conduct any field investigations or surveys necessary to establish the pipeline corridor.

TS-23 CONVEYANCE CORRIDOR

The conveyance corridor is defined as the Work Area for the temporary mooring area and/or sediment pipeline installation from the Mississippi River Borrow Areas MR-A, MR-B, and MR-E to Shell Island. This Work consists of furnishing and assembling the materials needed to construct, install, and survey the sediment pipeline in accordance with these Specifications and the project the Plans or as directed by the Engineer. All costs connected with the sediment pipeline will be included in the Contract unit price for Mobilization and Demobilization (Bid Item No. 1), which payment shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the work.

- 23.1 Conveyance Corridor Construction Limits: All construction equipment must be located within the conveyance corridor construction limits shown in the Plans. The construction limits of the proposed conveyance corridor shall be no greater than one hundred (100) feet in width with the exceptions of the Mississippi River Levee, Highway 23, and Hurricane Protection Levee crossings, and follow the alignment as defined in the Plans. All Work must take place within the conveyance corridor construction limits. All equipment staging areas shall be described in the Work Plan and approved by the Engineer prior to construction and mobilization. Excess Plant and Materials shall not be stored within the conveyance corridor limits. It shall be the Contractor's responsibility to coordinate and secure ap-

propriate staging areas and facilities. All access corridors, conveyance corridor from conveyance corridor alignment Stations 00+00 to 470+00, conveyance corridor navigational crossings, conveyance corridor booster pump locations, and all temporary sidecast areas shall be returned to BA-40 pre-construction conditions at the Contractor's expense prior to demobilization to the satisfaction of the Owner and individual controlling agencies where applicable.

- 23.2 Equipment and Construction Access: Access to the Mississippi River Borrow Areas MR-A, MR-B, and MR-E is only available through use of a boat through Federal and State authorized water bottoms. The Contractor may place a temporary marine access dock to facilitate equipment access to the Mississippi River for the duration of construction activities. Proposed temporary marine access dock shall be included in the Work Plan for approval by the Engineer prior to construction and placement within the temporary mooring area. All costs associated with the temporary marine access dock shall be included in Bid Item No. 1, "Mobilization and Demobilization".

The Conveyance Corridor shown in the Plans may be used during construction to temporarily transport construction equipment, materials, and labor to the fill areas and shall meet the landowner requirements specified in the land rights memorandum in Appendix XIII. The sediment pipeline used to transport sediment to the fill areas shall be placed within the conveyance corridor construction limits shown in the Plans. The Contractor's equipment access route and sediment pipeline location within the conveyance corridor shall be submitted in the Work Plan for approval prior to mobilization.

Specific to the conveyance corridor, the Contractor is prohibited from travel across marsh vegetation outside the designated construction limits. Additional information regarding repair of areas damaged from the land-based equipment can be found in TS-23.4.

There shall be no excavations by the Contractor allowed within fifty (50) feet of any oil or gas pipeline. Written approval from the pipeline/utility owner defining any allowances and/or restrictions placed on the Contractor by the pipeline/utility owner must be submitted to the Owner and Engineer seventy-two (72) hours prior to any excavation within the fifty (50) foot pipeline buffer.

For multiple Work areas, the excavation of material and placement of the material within the limits of temporary sidecast disposal areas may require double handling of the material. Accordingly, the cost of double handling of the material shall be included in the bid. Double handling shall be at no additional cost to the Owner and shall not be a basis of claim for additional costs or time.

- 23.3 Vehicular Crossings and Levee Access Ramps: The vehicular sediment crossings and levee access ramps shall be sufficient to accommodate vehicle traffic during construction including levee maintenance and inspection. Levee access ramps for vehicular traffic to and from the base and crown of the levees and vehicular sediment pipeline crossing shall be constructed by the Contractor to the grades and elevations as shown on the Plans. The levee access ramps and vehicular sediment pipeline crossing shall be constructed using earthen fill material as a base; either crushed aggregate, recycled crushed concrete, or recycled asphalt pavement as the road surface; and all other materials necessary in accordance with the Plans. Road surface aggregate shall conform to the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 1003.04. There shall be no fill material placed on the crown of the levee.

The Contractor shall provide proper drainage of any impounded areas created during the construction of the levee access ramps and vehicular sediment pipeline crossings for the duration of the Project. If drainage becomes a problem, the Contractor shall make modifications to improve the drainage such that water does not pond against the levees. Earthen material placed on the levees shall be fertilized and seeded by the Contractor to promote grass growth.

The Contractor shall work cooperatively with the Engineer and USACE to minimize traffic disruption for vehicular traffic that would normally utilize the gravel access road at the hurricane protection levee

base during the construction of the hurricane protection levee crossing. The Contractor's typical crossing plans shall be submitted in the Conveyance Corridor Work Plan prior to mobilization.

23.4 Restoration of Marsh Damages: The Contractor will be responsible for the restoration of any damages caused by unpermitted, unapproved, and/or careless operation during construction. Restoration may include the placement of dredged sediment and/or vegetation to pre-construction elevations and/or conditions within the areas of damage at the expense of the Contractor and will be performed at the discretion and direction of the Owner and Engineer. Restoration of impacts to the marsh from the Contractor installing and removing his sediment pipeline within the conveyance corridor limits, conveyance corridor alignment Stations 44+00 to 59+60, is not required provided the Contractor utilizes best management practices as determined by the Owner to minimize and negate impacts to the marsh. No storage of Plant, Equipment, and Materials is allowed within this segment of the conveyance corridor. The Contractor shall notify the Engineer and Resident Project Representative at least 72 hours in advance of Work within this segment to allow for inspection of the pipeline installation. The Contractor shall notify the Engineer and Resident Project Representative at least 72 hours prior to sediment pipeline removal within this segment to allow for inspection of the pipeline removal.

23.5 Alternate Conveyance Corridor Alignment: The conveyance corridor has been identified in the Plans. Deviations from or relocation of these corridors are subject to review and approval by the Owner, Engineer, and State and Federal regulatory agencies. Should the Contractor request a deviation or relocation of the conveyance corridor, it shall be the responsibility of the Contractor to apply for and obtain the required Permit modifications from the Louisiana Department of Natural Resources, Office of Coastal Management and the USACE in addition to approvals from the applicable property owners, oyster lease holders, and/or utility operators. The Contractor shall provide the approved permit modifications and approvals to the Owner and Engineer prior to excavation and installation of the sediment pipeline and/or booster pumps and/or any Work done within the proposed alternate conveyance corridor construction limits.

23.6 Conveyance Corridor Segments: Refer to TS-20 for sediment pipeline marking requirements.

23.6.1 Borrow Area MR-A to the Temporary Mooring Area

Borrow Area MR-A has been permitted for excavation by hopper or cutterhead dredges.

23.6.1.1 Hopper Dredge

The hopper dredge Work Area for Borrow Area MR-A encompasses the borrow area limits, conveyance corridor, and temporary mooring area/pump-out location along the batture at Empire, LA. The conveyance corridor within the Mississippi River for the hopper dredge will generally follow the travel path of shortest distance when transiting from Borrow Area MR-A to the temporary mooring area. The actual hopper dredge travel path shall be the responsibility of the Master of the vessel and dictated by the Navigation Rules (Commandant USCG Instruction M16672.2, Navigation Rules, International–Inland, COMDTINST M16672.2D), USCG mandates, and river traffic.

23.6.2 Cutterhead Dredge

The cutterhead dredge Work Area for Borrow Area MR-A encompasses the borrow area limits, sediment pipeline corridor, and temporary mooring area/pump-out location along the batture at Empire, LA. The sediment pipeline corridor in the Mississippi River originates at the cutterhead dredge and extends from within Borrow Area MR-A along the right descending bank to the temporary mooring area. For utilization of MR-A with a cutterhead dredge, the alignment of the sediment pipeline is subject to review and approval by the Engineer. The Contractor shall submit with

the Work Plan the proposed sediment pipeline alignment from MR-A to the Conveyance Corridor in the Work Plan for approval by the Engineer prior to mobilization.

The sediment pipeline shall be securely anchored or ballasted to prevent the sediment pipeline from lifting off the bottom under reasonably expected conditions. In nearshore locations the ballasted sediment pipeline shall be located such as to ensure that a minimum depth of six (6) feet of water relative to mean low water (MLW) is maintained above the top of the pipe and any associated ballast structure for navigational clearance except where exiting the river at the temporary mooring area. The sediment pipeline is to be placed parallel to the Mississippi River levee and shall be located at least forty (40) feet from the toe of the levee. The Contractor's proposed method of securing the sediment pipeline shall be submitted in the Work Plan for approval prior to mobilization. Any damage to the levee, revetment, or armor mat resulting from the Contractor's activities shall be repaired and restored to pre-construction conditions at the Contractor's expense and to the satisfaction of the USACE.

If a cutterhead dredge is to be used to excavate MR-A, the sediment pipeline shall cross the Mississippi River-side entrance of the Empire Locks. The sediment pipeline shall be placed below the -17.7' contour to comply with DOTD restrictions. This elevation shall be relative to the DOTD temporary benchmark established on the lock structure located on the top of the third cleat from the river side, located on the downriver side. The contractor shall coordinate with DOTD District 02 prior to installing sediment pipeline. Contact information for the representative is as follows:

Justin Guilbeau, P.E.
DOTD District 02 Design
7252 Lakeshore Drive
New Orleans, LA 70124
504-253-6120
Justin.Guilbeau@LA.GOV

23.6.3 Borrow Area MR-B to the Temporary Mooring Area

Borrow Area MR-B has been permitted for excavation by hopper or cutterhead dredges.

23.6.3.1 Hopper Dredge

The hopper dredge Work Area for Borrow Area MR-B encompasses the borrow area limits, conveyance corridor, and temporary mooring area/pump-out location along the batture at Empire, LA. The conveyance corridor within the Mississippi River for the hopper dredge will generally follow the travel path of shortest distance when transiting from Borrow Area MR-B to the temporary mooring area. The actual hopper dredge travel path shall be the responsibility of the Master of the vessel and dictated by the Navigation Rules (Commandant USCG Instruction M16672.2, Navigation Rules, International-Inland, COMDTINST M16672.2D), USCG mandates, and river traffic.

23.6.3.2 Cutterhead Dredge

The cutterhead dredge Work Area for Borrow Area MR-B encompasses the borrow area limits, sediment pipeline corridor, and temporary mooring area/pump-out location along the batture at Empire, LA. The sediment pipeline corridor in the Mississippi River originates at the cutterhead dredge and extends from within Borrow Ar-

ea MR-B, across the navigation channel following the path of shortest distance to the right descending bank, and along the right descending bank to the temporary mooring area. For utilization of MR-B with a cutterhead dredge, the alignment of the sediment pipeline is subject to review and approval by the Engineer and the USACE. The Contractor shall submit with the Work Plan the proposed sediment pipeline alignment from MR-B to the Conveyance Corridor in the Work Plan for approval by the Engineer prior to mobilization.

The sediment pipeline shall be securely anchored or ballasted to prevent the sediment pipeline from lifting off the bottom under reasonably expected conditions. In nearshore locations the ballasted sediment pipeline shall be located such as to ensure that a minimum depth of six (6) feet of water relative to mean low water (MLW) is maintained above the top of the pipe and any associated ballast structure for navigational clearance except where exiting the river at the temporary mooring area. The sediment pipeline is to be placed parallel to the Mississippi River levee and shall be located at least forty (40) feet from the toe of the levee. The Contractor's proposed method of securing the sediment pipeline shall be submitted in the Work Plan for approval prior to mobilization. Any damage to the levee, revetment, or armor mat resulting from the Contractor's activities shall be repaired and restored to pre-construction conditions at the Contractor's expense and to the satisfaction of the USACE.

If a cutterhead dredge is to be used to excavate MR-B, the sediment pipeline may cross the Mississippi River-side entrance of the Empire Locks. The sediment pipeline shall be placed below the -17.7' contour to comply with DOTD restrictions. This elevation shall be relative to the DOTD temporary benchmark established on the lock structure located on the top of the third cleat from the river side, located on the downriver side. The contractor shall coordinate with DOTD District 02 prior to installing sediment pipeline. Contact information for the representative is as follows:

Justin Guilbeau, P.E.
DOTD District 02 Design
7252 Lakeshore Drive
New Orleans, LA 70124
504-816-7310
Justin.Guilbeau@la.gov

23.6.4 Borrow Area MR-E to the Temporary Mooring Area

Borrow Area MR-E has been permitted for excavation by hopper or cutterhead dredges.

23.6.4.1 Hopper Dredge

The hopper dredge Work Area for Borrow Area MR-E encompasses the borrow area limits, conveyance corridor, and temporary mooring area/pump-out location along the batture at Empire, LA. The conveyance corridor within the Mississippi River for the hopper dredge will generally follow the travel path of shortest distance when transiting from Borrow Area MR-E to the temporary mooring area. The actual hopper dredge travel path shall be the responsibility of the Master of the vessel and dictated by the Navigation Rules (Commandant USCG Instruction M16672.2, Navigation Rules, International-Inland, COMDTINST M16672.2D), USCG mandates, and river traffic.

23.6.4.2 Cutterhead Dredge

The cutterhead dredge Work Area for Borrow Area MR-E encompasses the borrow area limits, sediment pipeline corridor, and temporary mooring area/pump-out location along the batture at Empire, LA. The sediment pipeline corridor in the Mississippi River originates at the cutterhead dredge and extends from within Borrow Area MR-E along the right descending bank to the temporary mooring area. For utilization of MR-E with a cutterhead dredge, the alignment of the sediment pipeline is subject to review and approval by the Engineer. The Contractor shall submit with the Work Plan the proposed sediment pipeline alignment from MR-E to the Conveyance Corridor in the Work Plan for approval by the Engineer prior to mobilization.

The sediment pipeline shall be securely anchored or ballasted to prevent the sediment pipeline from lifting off the bottom under reasonably expected conditions. In nearshore locations the ballasted sediment pipeline shall be located such as to ensure that a minimum depth of 6 feet of water relative to mean low water (MLW) is maintained above the top of the pipe and any associated ballast structure for navigational clearance except where exiting the river at the temporary mooring area. The sediment pipeline is to be placed parallel to the Mississippi River levee and shall be located at least 40 feet from the toe of the levee. The Contractor's proposed method of securing the sediment pipeline shall be submitted in the Work Plan for approval prior to mobilization. Any damage to the levee, revetment, or armor mat resulting from the Contractor's activities shall be repaired and restored to pre-construction conditions at the Contractor's expense and to the satisfaction of the USACE.

23.6.5 Temporary Mooring Area at Empire, LA

The temporary mooring area shall be used by the Contractor for the mooring of hopper dredge(s) for pump-out, booster pump(s), and temporary marine access dock if utilized. The maximum permitted area available for temporary mooring is two hundred feet (200') feet wide by two thousand feet (2,000') in length with western edge originating at the approximate -10 feet NAVD88 contour in the Mississippi River as illustrated in the Plans. The NAD83 State Plane coordinates of the limits of the temporary mooring area the Contractor intends to utilize for the Work shall be submitted in the Work Plan for approval by the Owner and Engineer.

The Contractor shall submit the proposed sediment pipeline alignment in the Conveyance Corridor Work Plan for approval by the Owner and Engineer prior to mobilization. The sediment pipeline is to be placed parallel to the Mississippi River levee and shall be located at least forty feet (40') from the toe of the levee. The sediment pipeline shall be securely anchored or ballasted to prevent the sediment pipeline from lifting off the bottom under reasonably expected conditions. In nearshore locations the ballasted sediment pipeline shall be located such as to ensure that a minimum depth of six feet (6') of water relative to mean low water (MLW) is maintained above the top of the pipe and any associated ballast structure for navigational clearance except where exiting the river at the temporary mooring area. The Contractor's proposed method of securing the sediment pipeline shall be submitted in the Conveyance Corridor Work Plan for approval by the Owner, Engineer, and the U.S. Army Corps of Engineers (USACE) prior to mobilization. Any damage to the levee, revetment, or armor mat resulting from the Contractor's activities shall be repaired and restored to pre-construction conditions at the Contractor's expense and to the satisfaction of the USACE.

It may be necessary for the Contractor to install temporary piles (dolphins), spud pile/mooring buoy, or similar anchoring method that penetrates the revetment along the right descending bank near the levee crossing location at Empire to provide hopper dredge mooring for pump-out or mooring of booster pump(s).. The installation of any penetration of the

revetment shall be implemented by the Contractor in accordance with the USACE regulations, provided in Appendix XXIII, and avoid interference with navigation. Further, the necessary engineering studies and designs for such installation shall be performed by a licensed Professional Engineer and the Contractor shall submit and receive the required Permits for its construction. The Contractor's proposed method of hopper dredge, booster pump(s), and temporary marine access dock mooring in the Mississippi River shall be submitted in the Work Plan for approval by the Owner and Engineer prior to Permit application by the Contractor. Costs incurred by the Contractor for compliance with this section should be included in the Bid Item No. 1, "Mobilization and Demobilization".

23.6.6 Temporary Mooring Area to Empire Waterway

This segment of the conveyance corridor crosses property owned by the Plaquemines Parish Government (PPG). It shall be the Contractor's responsibility to submit an "Application for Construction Permit" from the Plaquemines Parish Department of Permits and receive the appropriate Permit(s) for all Work performed on PPG property including, but not limited to, the Mississippi River levee, hurricane protection levee, and the permanent casing pipe under Parish Highway 11. The Contractor shall notify Parish representatives prior to construction and after Work is complete. Contact information for the representative is as follows:

Parish Highway 11:

Plaquemines Parish Department of Permits
Valarie Jones - Permit Coordinator
102 Belle Chasse Highway
Belle Chasse, LA 70037
504-297-5345

Any damage to the Mississippi River levee, batture, and/or bank, hurricane protection levee crown and slopes, and rock revetment along the Empire Waterway resulting from the Contractor's activities shall be repaired and restored to pre-construction conditions at the Contractor's expense and to the satisfaction of the Buras Levee District and PPG.

23.6.7 Mississippi River and Hurricane Protection Levee Crossings

The Mississippi River and hurricane protection levees must be crossed by the sediment pipeline within the conveyance corridor. All Contractor equipment shall remain within the conveyance corridor limits shown in the Plans or staging areas approved by the Owner and Engineer. **No excavation for sediment pipeline installation shall be permitted within one hundred feet (100') from the toe of the Mississippi River and hurricane protection levees.** The sediment pipeline crossings of the Mississippi River and Hurricane Protection levees shall be constructed in a manner to protect and maintain the levees. The vehicular sediment pipeline crossings and levee access ramps shall be sufficient to accommodate vehicle traffic during construction including levee maintenance and inspection. Levee access ramps for vehicular traffic to and from the base and crown of the levees and vehicular sediment pipeline crossing shall be constructed by the Contractor to the grades and elevations as shown in the Plans. The levee access ramps and vehicular sediment pipeline crossing shall be constructed using earthen fill material as a base, either crushed aggregate, recycled crushed concrete, or recycled asphalt as the road surface, and all other materials necessary in accordance with the Plans. Road surface aggregate shall conform to the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 1003.04. There shall be no fill material placed on the crown of the levee. The Contractor shall provide drainage of any impounded areas created during the construction of the levee access ramps and vehicular sediment pipeline crossings for the duration of the Project. If drainage becomes a problem, the Contractor shall make modifications to improve the drainage such that water does not pond against the levees. Temporary pipeline markers shall be placed and

maintained by the Contractor during construction at the toe of each levee in line with the sediment pipeline and at each approach ramp crossing the sediment pipeline indicating owner, size, number of pipelines, contents, and the address for contacting owner as shown in the Plans. The Contractor shall work cooperatively with the Engineer and USACE to minimize traffic disruption for vehicular traffic that would normally utilize the gravel access road at the hurricane protection levee base during the construction of the hurricane protection levee crossing. The Contractor's typical crossing plans shall be submitted in the Work Plan prior to mobilization. The levees shall be fertilized and seeded by the Contractor to promote grass growth in accordance with USACE specifications Section 02922 – Turf Establishment and Maintenance, Section 3.3 Application of Fertilizer and Soil Amendments and Section 3.4 Seeding, prior to demobilization to the satisfaction of the Owner and USACE. The levees shall be restored to pre-BA-40 construction conditions to the satisfaction of the Owner, USACE and the West Bank Levee District.

23.6.8 Parish Highway 11 and Louisiana Highway 23 Crossings

The Contractor shall observe the existing pipeline crossings at Parish Highway 11 and Louisiana Highway 23 prior to making his bid. The Contractor shall furnish all of the materials, labor, and equipment necessary to utilize the existing pipeline crossings at Parish Highway 11 and Louisiana Highway 23. Pits shall be excavated for access as shown on the Plans or as necessary and shall be excavated no closer on each side of outside edge of pavement (measured right angles to) than the dimensions defined on the Plans. When cut, the area shall be securely sheeted and braced to maintain stability of the excavations. A steel sheetpile or bracing system shall be used for excavations of greater depth than four (4) feet. The Contractor's methodology to maintain access pit stability and the temporary disposal locations shall be included in the Work Plan for approval prior to mobilization. Pumps may be used to dewater excavation pits and maintain a dry bottom. Additionally, a well point system may be required. The Contractor shall install and maintain safety netting around all open cut excavations during construction to ensure public safety. The casing pipes are Permalok smooth steel casing pipes. The casing pipes have an approximate outside diameter of 42" and a minimum wall thickness of 0.625 inches. Refer to Appendix XX for specifications on the existing casing pipe materials.

Any alternate sediment pipeline placement methods shall be included in the Work Plan for approval by the Engineer. The highway crossing locations within the conveyance corridor are shown in the Plans. The Contractor shall notify the highway representatives prior to construction and after work is complete. Contact information for the representatives is as follows:

Parish Highway 11:
Plaquemines Parish Department of Permits
Valarie Jones - Permit Coordinator
102 Belle Chasse Highway
Belle Chasse, LA 70037
504-297-5345

Louisiana Highway 23:
Louisiana Department of Transportation and Development
Darlene D. Bourgeois - LADOTD District Permit Specialist
504-437-3130

The Contractor shall perform a survey to locate, probe, identify, and mark any utilities within the conveyance corridor limits in the vicinity of the proposed excavation and alignments for operations. If existing utility infrastructure is damaged by the Contractor during construction, the lines shall be repaired immediately to pre-construction conditions by the Contractor

at no cost to the Owner.

Sediment pipeline installation shall be performed in a way that will not interfere with, interrupt or endanger the roadway surface and activity thereon, and minimize subsidence of the surface and utilities above and in the vicinity of the operations. The Contractor shall be responsible for all settlement resulting from operations and shall repair and restore damaged road surfaces or utilities to pre-construction conditions at no cost to the Owner.

Upon completion of the installation of the sediment pipeline, disturbed areas shall be seeded or protected from erosion. If operations necessitate the removal of nearby fences, a temporary structure shall be constructed to maintain landowner/lessee operations. Fences shall be reconstructed prior to demobilization, and the area shall be restored to Scofield Island (BA-40) project pre-construction conditions.

After utilization of the casing pipes for another State sponsored coastal restoration project, each end of each casing pipe was capped. Cap removal and replacement shall be required. Permanent casing pipe markers are installed on each side of the highway as shown on the Plans to mark the crossing locations. Permanent casing pipe markers may be temporarily removed and stored during operations. The permanent casing pipe marker signs were made and installed in accordance with Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 729, and as shown on the Plans. If removed, the casing pipe markers shall be reinstalled in accordance with Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 729 subsequent to backfilling the construction pits, prior to demobilization. Prior to demobilization, any casing pipes shall be capped and filled with fresh water, construction pits shall be backfilled, and the conveyance corridor shall be restored to pre-Scofield Island (BA-40) project construction conditions. The Owner can provide guidance as to these conditions. As part of the site restoration under demobilization, the Contractor shall have a licensed Professional Engineer in the State of Louisiana submit written certification to the Owner and Engineer that, if a casing pipe was utilized, the sediment pipeline was removed without damage to the casing pipe and the casing pipe caps were installed in accordance with his design plans and the Louisiana Standard Specifications for Roads and Bridges, 2006 edition.

After the beach, dune, and marsh fill have been accepted and the sediment pipeline has been removed from the casing pipe, each end of each casing pipe shall be capped. Caps shall be constructed in accordance with the Plans. Caps shall be welded to the casing pipe and shall be water tight. Once capped and filled with water, the water tight integrity of the cap welds shall be verified by the Resident Project Representative prior to backfilling the construction pits. The Contractor shall provide the Owner and Engineer notice of the completion of installation of the caps 72 hours prior to backfilling of the construction pits to provide for inspection. The Contractor shall have a licensed Professional Engineer in the State of Louisiana submit written certification to the Owner and Engineer that the sediment pipeline was removed without damage to the casing pipe and the casing pipe caps were installed in accordance with the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, and that the installation was consistent with the Plans and Specifications. Steel casing pipe caps shall be included in Bid Item No. 1 "Mobilization and Demobilization" and shall include all materials, labor, tools, equipment, and incidentals required to install the casing pipe caps.

23.6.9 Empire Harbor Canal Crossing

The sediment pipeline shall cross the Empire Harbor Canal within the conveyance corridor as shown in the Plans. It shall be the Contractor's responsibility to work cooperatively and coordinate construction activities with the users of the Empire Harbor Canal so as to not unnec-

essarily impede traffic in the Empire Harbor Canal during the sediment pipeline or bank stabilization measures installation, maintenance, and removal. Installation of the sediment pipeline will require trenching and installation of the sediment pipeline and any associated ballast structure shall be to a minimum of three (3) feet below existing grade for a minimum width of 120 feet centered on the lowest elevation of the Empire Harbor Canal. The excavated material shall be temporarily placed within the confines of the temporary sidecast disposal areas shown in the Plans. The Contractor has the option to trench excavate the banks of the Empire Harbor Canal to facilitate a shallower slope of the sediment pipeline as the pipeline egresses from the mandatory burial within the Empire Harbor Canal. Bank stabilization measures shall be required if the Contractor elects to trench excavate the banks of the Empire Harbor Canal for sediment pipeline installation.

After installation of the sediment pipeline with utilization of the optional bank trench excavation, the bankline shall be backfilled and stabilized with articulated concrete mats. Mats shall be SubMar Ultraflex Type-M4540 or equivalent equal approved by the Engineer. Bank stabilization shall consist of three (3) mats measuring eight feet (8') wide by sixteen feet (16') long placed in a shore parallel fashion, anchored, and interconnected to form a single unit after installation. The mats shall be installed over a geotextile fabric and shall conform to the Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Standard Specification 1019.01 (b) (2). Individual mat segments shall be identified with the attachment of a two inch by four inch (2" x 4") tag. Tags shall be attached to each individual eight feet by sixteen feet (8' x 16') mat segment prior to installation. Tags shall be made of a non-corrosive material and attached in a manner as to prevent galvanic corrosion with the longitudinal cables of the mats. The tags shall be stamped or engraved with the following information.

Owner: CPRA
Phone Number: 225-342-7308
ID Number: [#]

ID number shall be unique and shall be designated by a location identifier of the letters "A" or "B" and a placement number of 1 through 3. Location "A" shall designate mats along the northeast bank of the Empire Harbor canal and Location B shall designate mats along the southwest bank of the Empire Harbor canal.

The Contractor shall submit a proposed canal crossing plan and bank stabilization detail in the Work Plan.

Temporary pipeline markers shall be placed and maintained by the Contractor during construction in accordance with TS-20 and as shown in the plans.

Material remaining in the temporary sidecast disposal areas shall be reworked into the trench excavation, and the bank stabilization mats shall be reinstalled during demobilization. Elevations in the Empire Harbor canal resulting from backfilling operations shall also be no higher than + 0.5 feet of Scofield Island (BA-40) project pre-construction elevations.

23.6.10 Empire Marsh and Rock Revetment Crossing

The sediment pipeline shall traverse the existing Empire marsh platform, at existing grade, along the conveyance corridor between the hurricane protection levee and the rock revetment for the Empire Waterway. No excavation or trenching is permitted in the installation of the sediment pipeline along the Empire Marsh area or in crossing the rock revetment. The sediment pipeline installation equipment shall be limited to marsh-buggy and airboat. Appropriate protection measures shall be utilized when crossing the rock revetment such as, but not limited to, timber matting. Timbers shall be treated, 6 inch by 6 inch by 4 feet (6" x 6" x 4'),

or other approved equal. The Contractor shall submit proposed sediment pipeline installation methods and rock revetment protection measures in the Work Plan for approval prior to mobilization.

The Contractor will be responsible for the restoration of any damages caused by unpermitted, unapproved, and/or careless operation during construction. Restoration may include the placement of dredged sediment and/or vegetation to pre-construction elevations and/or conditions within the areas of damage at the expense of the Contractor and will be performed at the discretion and direction of the Owner and Engineer. Restoration of impacts to the marsh from the Contractor installing and removing their sediment pipeline within the conveyance corridor limits, Stations 44+00 to 59+60, is not required provided the Contractor utilizes best management practices as determined by the Owner to minimize and negate impacts to the marsh. No storage of Plant, Equipment, and Materials is allowed within this segment of the conveyance corridor. The Contractor shall notify the Engineer and Resident Project Representative at least 72 hours in advance of Work within this segment to allow for inspection of the sediment pipeline installation. The Contractor shall notify the Engineer and Resident Project Representative at least 72 hours prior to sediment pipeline removal within this segment to allow for inspection of the sediment pipeline removal.

23.6.11 Empire Waterway from Empire, LA to Shell Island East (BA-110)

23.6.11.1 General: The Contractor shall assure that Work does not impede or interfere with navigation along the Empire Waterway and shall maintain ongoing coordination with the USCG and USACE.

23.6.11.2 Existing Features: For the Preliminary Design Phase of the Scofield Island Restoration Project (BA-40), a bathymetric and magnetometer survey was conducted in the open water segments of the conveyance corridor. The survey report can be found in the Preliminary Design Report titled "Riverine Sand Mining/Scofield Island Restoration, Preliminary Design Report, SJB Group, LLC and Coastal Engineering Consultants, Inc., 2010", Appendix G, submitted to Louisiana Department of Natural Resources, Coastal Engineering Division, January 2010. The Contractor is advised that during the survey numerous magnetic and acoustic anomalies were recorded. Such debris should be expected within the conveyance corridor open water segments.

23.6.11.3 Empire Waterway: The sediment pipeline shall be installed within the limits of the conveyance corridor as shown in the Plans and in accordance with these Specifications. The Contractor shall maintain ongoing coordination with the Owner, USCG and USACE throughout the sediment pipeline installation, maintenance, and removal. The sediment pipeline shall be placed within the limits of the conveyance corridor wherein a minimum of four (4) feet of water relative to MLW is maintained above the top of the sediment pipeline and any associated ballast structure. No excavation or trenching is permitted in the installation of the sediment pipeline along the Empire Waterway except where defined in the Permits, Plans, and/or Specifications for navigational crossings or booster pump locations. The sediment pipeline shall be marked in accordance with USCG regulations at all times. In the event the Contractor cannot install the sediment pipeline to provide the required four (4) feet of freeboard, the Contractor shall contact the Engineer immediately to coordinate an optional alignment or installation procedure. The Contractor shall assure that Work does not impede or interfere with navigation along the Empire Waterway.

Sediment pipelines that cross a navigable channel must be submerged and resting on the bottom. The top of any submerged sediment pipeline and any anchor securing the submerged sediment pipeline shall be no higher than the project depth for any navigation channel in which the submerged sediment pipeline is placed. The depth of any sediment pipeline crossing a navigation channel shall be submitted to the USCG for publication. A description of sediment pipeline placement shall be included in the Work Plan.

The Contractor shall perform bi-weekly underwater inspection of the submerged sediment pipeline to detect alignment, stability, and integrity issues with the sediment pipeline. At a minimum, the inspections shall take place where the sediment pipeline is installed within the Mississippi River; unburied segments in the vicinity of the Empire Harbor Canal; rock re-vestment crossing at the Empire Marsh; and unburied segments in the vicinity of the navigational crossings and booster pump locations. This may be accomplished in combination by multibeam sonar, sidescan sonar, single beam sonar, remote underwater video, diver, and/or other approved methods. The surveys shall be repeatable and compared to prior surveys for any alignment, stability, and integrity issues. Initial underwater inspection survey shall be conducted following sediment pipeline installation and prior to utilization of the sediment pipeline for the transport of dredged sediments. Plots depicting the comparisons of successive inspection surveys to the initial inspection survey shall be submitted to the Owner and Engineer within seven (7) of the most recent survey. The Contractor shall submit a survey plan for submerged sediment pipeline inspection in the Conveyance Corridor Work Plan for approval by the Owner and Engineer. The presence of any such issues or deviations shall be required to be documented, locations plotted, and reported immediately.

23.6.11.4

Navigational Crossings

There are four (4) navigational crossings along the Empire Waterway, excluding the Empire Waterway Crossing, that will require trenching and installation of the sediment pipeline to a minimum of three (3) feet below existing grade for a distance of one hundred twenty-five (125) feet to each side of the navigational crossing centerline. Excavated material must be placed within the limits of the temporary sidecast disposal areas permitted and shown in the Plans and may require double handling of material. Material placed in the temporary sidecast disposal areas must conform to the elevations, grades, and lines specified in the Plans and shall be marked in accordance with USCG regulations. Material remaining in the temporary sidecast disposal areas shall be reworked into the trench excavation during demobilization. Elevations in the navigational crossing resulting from backfilling operations shall also be no higher than + 0.5 feet of pre-construction elevations.

23.6.11.5

Empire Waterway Crossing

There is one (1) Empire Waterway Crossing seaward of Station 441+25 that will require trenching and installation of the sediment pipeline to a minimum of three (3) feet below existing grade or a top of pipe elevation of -12 feet NAVD88, whichever is shallower. If the Contractor sees reason to place the sediment pipeline below this grade, he shall be responsible for securing any permits required to do so. Excavated material must

be placed within the limits of the temporary sidecast disposal areas permitted and shown in the Plans and may require double handling of material. The sediment pipeline shall be placed within the limits of the conveyance corridor. The sediment pipeline shall be marked in accordance with TS-20 at all times. Material placed in the temporary sidecast disposal areas must conform to the elevations, grades, and lines specified in the Plans and shall be marked using warning signs as specified in TS-30. Material remaining in the temporary sidecast disposal areas shall be reworked into the trench excavation during demobilization. Elevations in the navigational crossing resulting from backfilling operations shall also be no higher than + 0.5 feet of pre-construction elevations.

23.6.11.6 Booster Pump Locations

There are five (5) potential locations permitted for booster pumps along the Empire Waterway. Excavation of material to provide booster pump cooling may be required. Excavation is limited to the depths, dimensions, and slopes as defined in the Plans and Permits. Excavated material must be placed within the limits of the temporary sidecast disposal areas shown in the Plans and may require double handling of material. Material placed in the temporary sidecast disposal areas must conform to the elevations, grades, and lines specified in the Plans and shall be marked in accordance with USCG regulations. Material remaining in the temporary sidecast disposal areas shall be reworked into the area excavated for pump cooling during demobilization. Elevations in the excavated booster pump cooling pits resulting from backfilling operations shall also be no higher than +0.5 feet of pre-construction elevations.

23.6.12 Shell Island East (BA-110) to Shell Island West NRDA (BA-111) East Lobe

23.6.12.1 General: The Contractor shall assure that Work does not damage the recently constructed Shell Island East (BA-110) project. Placement of temporary dredge pipeline along the length of the BA-110 beach/dune shall be described in the Work Plan for approval by the Engineer. Placement of pipeline shall not damage existing vegetation on Shell Island. Should damage of vegetation, sand fencing, or existing landscape occur, the Contractor shall restore the area to pre-construction conditions in accordance with EP-9.

23.7 Overhead Utilities Compliance: Construction activities may take place near Entergy power and distribution lines and precautions shall be taken to avoid impeding regular operations. It is understood and agreed that the wires supported by structures on the Entergy right of way are conductors of, and at all times have in them, high voltage electricity. No person, or object in contact with a person, may touch or be near to said wires or other fixtures on said structures, because to do so or to permit such would be dangerous to the life of the party so doing, as well as anyone else in the area where such occurred. The Contractor agrees to inform each and every individual of such facts before such party enters upon any part of the easement area shown on Plans during the time such work is being prepared, done or completed, or any equipment moved to, upon or from said property and Entergy shall be indemnified by the Contractor from any injury or death resulting there from in accordance with the terms of the indemnity agreement set forth in the land rights memorandum. The area within Entergy's right of way is to be used only for the purposes disclosed to Entergy, and no buildings or components of buildings are to be located or protruding into the right-of-way. Any Work performed in this area must be done in accordance with all National Electric Safety Code (NESC) requirements concerning clearances from energized facilities, grounding of any installations and any other applicable code requirements. All OSHA regulations must be met and maintained during the construction, operation, and maintenance of

all facilities within the right-of-way. It is also agreed and understood that Contractor will at all times indemnify and hold harmless Entergy 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 and death to employees of Entergy and 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 the Contractor's rights hereunder, or to the Contractor's presence upon or use of Entergy premises above referred to, or to the use or existence of the Contractor's 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 sole negligence of Entergy, its employees, agents, or representatives. All equipment used on the property shall have a maximum height not to exceed NESC clearances allowed, or shall be provided with guard chains limiting moveable parts of the equipment to that maximum height. No fencing, tents, jack-up lighting, or light poles of any kind are permitted inside Entergy's right-of-way at any time. Entergy will have full access and use of the right-of-way at all times for any work projects or maintenance and shall not be responsible for any damage to the proposed sediment pipeline crossing Entergy's right of way. Entergy must approve any additional improvements to the right-of-way area. Upon termination of the use of the Entergy Right-of-Way, the Contractor shall restore the property to pre-construction conditions following construction.

- 23.8 Measurement and Payment: All costs incurred by the Contractor for the placement, maintenance, and removal of the sediment pipeline within the conveyance corridor shown in the Plans shall be included in Bid Item No. 1, "Mobilization and Demobilization" except for the navigational crossings and booster pump locations. All costs incurred by the Contractor for excavation, placement, maintenance, and removal of the sediment pipeline, bank stabilization, and restoration upon demobilization of the navigational crossings and Empire Waterway Crossing shown in the Plans shall be included in Bid Item No. 11, "Navigational Crossings". All costs incurred by the Contractor for the excavation and restoration of cooling pits for booster pumps shall be included in Bid Item No. 12, "Booster Pump Locations". All costs incurred by the Contractor to install the temporary Mississippi River levee, Hurricane Protection levee, Highway 11, LA Highway 23, Empire Harbor Canal, and Empire Marsh and Rock Revetment crossings shown in the Plans shall be included in Bid Item No. 10, "Pipeline Conveyance Corridor Crossings – Mississippi River to Fill Area".

TS-24 WATER DISCHARGE AREA, OPEN WATER DISCHARGE, AND TURBIDITY CONTROL STRUCTURE

- 24.1 Turbidity Control: The Contractor is required to discharge water from the marsh fill area into the Gulf of Mexico or Bastian Bay to avoid impoundment of water. Predetermined dewatering locations have been identified as shown in the Plans. The Contractor must provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint, including, if applicable, a description of any water control structures proposed for use. Turbidity curtains shall be used at all outflow areas around water control structures. The plan must contain methods to limit turbidity and sedimentation in open water. Additional dewatering areas may be proposed by the Contractor and shall be included in the Turbidity Control Plan. The Turbidity Control Plan shall be submitted to the Engineer in the Work Plan.

The Contractor is required to install a turbidity control structure, landward of the marsh sand flat, along the entire length of the marsh sand flat. The structure should consist of a silt curtain sufficiently secured along the length of the marsh sand flat feature. If posts are to be driven, a magnetometer survey shall be performed in the area of installation prior to the work. The Contractor shall locate any infrastructure or obstructions prior to driving posts. The structure shall be installed no greater than 150' landward of the toe of fill. Alternate proposed turbidity control structure designs for the marsh sand flat may be submitted for approval by the Engineer in the Work Plan.

In the event that the Engineer, Resident Project Representative, or the Owner observes signs of the discharge of turbid waters which form noticeable plumes outside the limits of the Work, the Owner may, at its sole discretion, require that the Contractor immediately initiate twice daily turbidity sampling with reports submitted to the Engineer. No additional compensation shall be paid to the Contractor for this work.

- 24.2 Water Control Structures: 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. Approved dewatering locations are shown in the Plans; dewatering at other locations is not permitted. Each dewatering area is 250 feet long, measured along the primary dike, and centered on the coordinates provided in the Plans. The rate of discharge must be manually controllable with the ability to completely shut off discharge through the structure. The Turbidity Control Plan should also describe the method and timing of removal of any proposed water control structures.

TS-25 MISPLACED MATERIALS

The Contractor shall not deposit dredged material within navigation channels (Empire Waterway) or on the existing bay shores, beaches, or existing marshes, except within the fill areas shown in the Plans, without approval of the Engineer. If any material is deposited other than in places designated or approved, the Contractor may be required to remove such misplaced material and redeposit it where directed by the Engineer at the Contractor's expense. This will include materials in the borrow area, as discussed in Section TS-21 of the Technical Specifications. The Contractor is responsible with all costs associated with placement of material outside of the fill area shown in the Plans.

TS-26 PRIMARY CONTAINMENT DIKE CONSTRUCTION

- 26.1 General: The boundaries of the primary containment dike appear in the Plans. Fill material to construct the primary containment dike may be excavated from within the access channels and borrow sources shown in the Plans. The primary containment dike shall be erected as shown in the Plans to prevent discharge of turbid water into the Gulf of Mexico or Bastian Bay. The Contractor is required to provide continual maintenance of the primary containment dike so that it functions as intended during the construction period for which it is needed.
- 26.2 Excavation of Access Channel: The Contractor may excavate the construction access channels shown in the Plans to access the primary containment dike location. The Contractor may excavate the access channels/primary containment dike fill sources as necessary but within the limits shown within the Plans to provide fill to construct the primary containment dike. The Contractor may transport fill excavated from one part of the access channel and use it to construct the primary containment dike elsewhere in the project footprint. However, it is estimated that there is sufficient fill within the access channels /primary containment dike fill sources to allow construction of the primary containment dike without the transport of fill material within the project area. The Contractor shall excavate from the primary fill source/access channel to the greatest extent possible prior to excavating the secondary fill source for the primary dike. In the event the field conditions prohibit the Contractor from constructing the primary dike using only material from the primary fill source/access channel, the Contractor shall submit a request to the Engineer to excavate material from the secondary fill source. The Engineer will evaluate the field conditions and determine if excavation from the secondary fill source is necessary.
- 26.3 Dimensions: The primary containment dike shall be constructed to a minimum elevation of +5.0 feet NAVD88 with a tolerance of +1.0 foot. The primary containment dike shall have a minimum crest width of five (5) feet. Other dike dimensions including side slope and base width are at the discretion of the Contractor provided the structure is substantial enough to prevent a blowout, discharge of fill material, and/or turbid water discharge into adjacent water bodies. The Contractor is required to build

and maintain the primary containment dike until completion of the project. The Contractor may be required to degrade up to 15% of the total dike length at the end of the project to allow for flow into and out of the marsh area. Data regarding existing geotechnical site conditions are provided in Appendix IV. The Contractor must provide a plan for primary containment dike construction including a representative drawing of dike dimensions at least fourteen (14) Days prior to the Pre-Construction Conference.

TS-27 WORK WITHIN THE VICINITY OF EXISTING PIPELINES

Oil and gas infrastructure are present in the project area. Project construction requires work in the immediate vicinity of oil and gas pipelines. The Contractor is required to independently locate infrastructure. The access channels may cross pipelines owned and operated by various entities. Under the terms of this Contract, the Contractor shall not excavate within 50 feet of any active and/or abandoned pipeline without written permission from the oil and gas infrastructure owners. The Contractor shall not anchor or excavate within 500 feet of any pipeline or transmission line in the Mississippi River. At the Contractor's discretion, equipment may float over the pipelines if the Contractor deems that there is sufficient water depth and clearance as to not disturb the lines.

TS-28 SAND FENCING

28.1 Description: A single row of sand fencing shall be installed after beach fill segments are accepted in accordance with the Plans to aid in the stabilization of sand and in the retention of wind blown sand within the project area. Sand fencing must be installed within fourteen (14) days following acceptance of a fill segment. Section lengths and configuration may vary. Gaps, as shown on the drawings, will separate the beginning and end of each fence section. Additional rows of fencing, or parts thereof, may be installed at various locations should site conditions warrant, as directed by the Engineer. Wooden fence posts are to be used for vertical support. The slatted wood sand fencing shall be attached to the posts at the top, middle, and bottom using corrosion resistant tie wire. The tie wire shall wrap around the sand fence wire three (3) times, then wrap once around the post, and then be wrapped three (3) times around the sand fence wire on the other side of the post. Tie wire must be approved by the Engineer prior to construction.

28.2 Material Specifications:

28.2.1 Posts: Posts shall be No. 2 grade, Southern Pine. Fence posts shall be either four inch (4") round or four inch by four inch (4" x 4") posts with a minimum length of eight feet (8'). The posts shall be placed 10 feet on center and driven into the ground such that the top of the posts extend 4 feet above the final grade. The posts shall be vertically plumb, the alignment shall be in straight lines.

28.2.2 Fencing: Sand fencing shall be standard, weather resistant snow fencing. Sand fencing shall be furnished in rolls of fifty feet (50') or one hundred feet (100'). The sand fence is to be composed of the following elements:

28.2.2.1 Slats: Slats shall be made of No. 1 Aspen or Spruce measuring three-eighths inch (3/8") thick, one and a half inches wide by four feet long (1-1/2" wide by 4') long. The maximum distance between slats shall not exceed two and one-quarter inches (2-1/4").

28.2.2.2 Sand Fence Wire: Wire for securing slats shall be commercial quality steel that has been hot-dipped galvanized with a minimum gauge rating of 13. The wire shall be twisted around the slats sufficiently to penetrate the slat to hold it in place. Wire strands shall not exceed ten inches (10") and shall not be

closer than four inches (4") from slat ends.

28.2.2.3 Tie Wire: The wire that is used to tie the fence to the posts shall be hot-dipped galvanized with a minimum gauge rating of 12.

28.2.2.4 Overlaps: Where sections of sand fence are joined, a minimum of six inches (6") of each section shall overlap. The overlaps shall be secured using three (3) wraps of wiring at four (4) places at ten inches (10") on center.

28.3 Installation:

28.3.1 The Sand fence location and alignment shall be in conformance with the Plans unless otherwise required or approved by the Engineer in order to accommodate site conditions that exist at the time of installation. The sand fence shall be installed on the Gulf of Mexico side of the post. Such location and alignment changes shall not reduce the contract quantity of fencing materials.

28.3.2 The Contractor's equipment used for the installation of fence posts, the transportation of fencing materials, and the movement of personnel shall be of the type that shall not cause non-repairable damage to surface areas of the beach when properly used. All equipment proposed for use on the beach shall be acceptable to the Engineer prior to mobilization to the beach. Equipment operators shall be fully instructed with regards to avoiding damage to the beach surfaces and vegetation. At the discretion of Engineer, the Contractor may be required to restore beach surface elevations changed by 0.5 feet or more by the Contractor during mobilization, construction, or demobilization.

28.3.3 Fencing materials stored at the work site shall be placed in an easily accessible location that has been approved by the Engineer. Stored materials shall be placed and maintained in a neat, orderly, and safe manner.

TS-29 SETTLEMENT PLATES

29.1 Scope: This Work consists of furnishing and assembling the materials needed to construct and install settlement plates in accordance with these Specifications and the project Plans or as directed by the Engineer. It should be noted that the settlement plates are intended for CPRA's long term monitoring of the island.

29.2 Materials: Settlement plates shall be fabricated with a four foot by four foot by one-quarter inch (4' x 4' x 1/4") steel plate with a three inch (3") diameter galvanized riser pipe connected to the center of the plate with a three-sixteenth inch (3/16") continuous fillet weld. The pipe shall be of sufficient length to facilitate the placement in the areas as shown in the Plans, extending a minimum of five feet (5') and a maximum of eight feet (8') above finished grade. The top of the pipe shall be closed with a galvanized cap prior to installation and immediately after adding extension sections. A bolt shall be placed in the riser pipe three feet (3') above the as-built grade. The bolt shall be hot dipped galvanized as shall the associated nuts and washers.

29.3 Zinc Coating: After fabrication, the settlement plate shall be hot dipped galvanized. Zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In all cases where zinc coating is destroyed by cutting or installation of the survey bolt, the affected areas shall be regalvanized with a suitable low-melting zinc base alloy, similar to the recommendations of the American Hot-Dip Galvanizers Association, to the thickness and quality specified for the original zinc coating. Coatings less than two (2) ounces shall be regalvanized by a repair compound.

- 29.4 Installation: The settlement plates shall be installed at the locations as shown in the Plans prior to fill placement (beach/dune, marsh, and dike) in the immediate vicinity. For settlement plates located where excavation is necessary, the plate should be installed after excavation and prior to the fill placement in the immediate vicinity. The top of the pipe shall be between five feet (5') and eight feet (8') above the as-built surface. The pipe shall be at an angle of no more than 10.5° from normal. The Contractor shall exercise care when placing fill material in the vicinity of the settlement plates. Any damaged settlement plates shall be replaced by the Contractor at no expense to the Owner. Damaged settlement plates are defined as plates that would not accurately locate the primary dike centerline, sand dune centerline, and marsh locations as determined by the Engineer. Leveling of the plate bed shall be accomplished by removing the minimum amount of earth or debris necessary to produce an even foundation and in such manner that the density of the sediment under the plate will remain at the same density as the undisturbed adjacent ground. Leveling of the plate bed by the addition of fill will not be permitted.
- 29.5 Surveys: The Contractor shall survey the grade, bolt elevation, and top of pipe of the settlement plates immediately after placement, three (3) Days after placement, and every seven (7) Days until Final Acceptance of the project. Settlement plates shall also be surveyed any time they are altered or impacted. The Contractor shall provide the data to the Engineer in a survey format provided in Appendix III, along with a time stamp.

TS-30 SIGNAGE

- 30.1 General Description: This Work consists of furnishing and assembling the Materials needed to construct and install shoal signs or buoys near all temporary sidecast disposal areas as shown in the Plans and in accordance with the USCG standards. The buoys, warning signs, pilings, and assemblies shall also be removed prior to demobilization in accordance with these Specifications and the Plans or as directed by the Owner or Engineer.
- 30.2 Materials:
- 30.2.1 Signs: Each of the warning signs shall be fabricated from 125 gauge 61TS Aluminum or approved equal, covered with white, engineer grade, reflecting sheeting; black screened lettering and design; and orange, engineer grade reflective border. Signs shall meet all USCG Standards.
- 30.2.2 Piling: All timber piling shall conform to Louisiana Standard Specifications for Roads and Bridges, 2006 edition, Specification Sections 812 and 1014. Timber piling shall be a minimum of twelve inches (12") in diameter (nominal end) and of such length that the pile have a minimum of forty percent (40%) of the pile's total length as bottom penetration and a marker top elevation of twelve feet (12') above mean high water (+1.70 feet NAVD88). The Contractor may use temporary buoys in lieu of pilings for warning sign installation. Buoys must be approved by the Owner and Engineer and meet all USCG Standards.
- 30.2.3 Hardware and Connections: All nuts, bolts, and washers shall be hot dipped galvanized. Nylon washers shall be provided at both ends of all bolts. Connection angles shall be two inches by two and one-quarter inches (2" x 2 1/4") and hot dipped galvanized and shall extend within six inches (6") of sign edges on the top and bottom. Timber blocking shall be pressure treated pine or fir with a minimum length of eighteen inches (18").
- 30.3 Installation: The warning signs shall be installed at locations shown in the Plans or as directed by the Owner or Engineer. The top of the pile shall be twelve feet (12') above mean high water (+1.70 feet NAVD88).

- 30.4 Removal: Following completion of dredging, removal of the submerged pipeline and any required leveling of spoil material, all pilings or pipes shall be removed to depth at least ten feet (10') below existing ground. All material removed shall become property of the Contractor and shall be removed and disposed of in a manner approved by the Owner and Engineer from the Work Area prior to demobilization. Materials being disposed shall be in accordance with Title 33, part VII, sub-part 1 (Solid Waste) of the Louisiana Environmental Regulatory Code, latest revision (<http://www.deq.state.la.us/portal/tabid/1674/Default.aspx>). The Contractor is responsible for any and all costs associated with the disposal of removed materials.

TS-31 PRE-CONSTRUCTION AND AS-BUILT SURVEYS – BEACH AND DUNE

- 31.1 Survey Requirements: All profile surveys shall be conducted using either differential leveling techniques or GPS with RTK (real time kinetic) correction. If differential leveling techniques are used, the Contractor shall close all level loops and the closure shall be less than four-hundredths of a foot (0.04'). All onshore points shall be within five feet (+/- 5') horizontally of the established profile line. All offshore points shall be within twenty feet (+/- 20') horizontally of the established profile line. Payment surveys must extend a minimum of five hundred feet (500') seaward (south) of the seaward toe of dune fill and a minimum of two hundred fifty feet (250') landward (north) of the landward toe of beach/dune or sand flat fill. If a fathometer is used to survey the offshore portion of the profile, the bathymetric survey and rod survey must overlap a minimum of thirty feet (30'). A six inch (6") diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking into the bottom.
- 31.2 Profile Line Azimuths: Profile line surveys shall be conducted along the azimuth lines shown in the Plans. The survey baseline on each profile line is Range 0+00. Data points collected seaward (south) of the baseline shall be reported as a positive offset while data points landward (north) of the baseline shall have a negative offset. A sufficient number of points shall be taken along each line to ensure adequate description of topographic features, such as the dimensions of slope breaks, dune crest, foreshore, and intersections of the fill with the existing grade or bottom, with a maximum elevation difference of one foot (1') between adjacent points. Data points shall be taken at a spacing of not more than twenty feet (20'). The product shall be a continuous line representing the entire fill template of the beach and dune.
- 31.3 Survey Documentation: All survey work shall be documented with copies supplied to the Engineer. The as-built pay surveys may be required to be conducted in the presence of the Engineer or their representative, at the option of the Engineer. The Contractor shall provide at least three (3) Days advance notice to the Engineer and Resident Project Representative prior to conducting surveys.
- 31.4 Deliverables to the Engineer: Deliverables to the Engineer shall include a hard copy form and an electronic format of the survey data in one of the ASCII formats appearing in Appendix III (preferably Format #3). No other formats are acceptable. Additional information to be provided to the Engineer shall include any corrections and field notes.
- 31.5 Pre-Construction Survey: Pre-construction surveys shall be conducted by the Contractor. The surveys will be used by the Engineer to update the Plans and prepare the final cross-sections for the Plans. The Contractor shall not commence construction until all cross-sections have been updated to incorporate the Contractor's dune, beach, and sand flat fill area pre-construction surveys and permission to proceed is provided in writing by the Engineer. A minimum of fourteen (14) working Days will be required to update the project Plans upon receipt of the pre-construction survey data.
- 31.6 As-Built Survey: If determined by the Engineer to be an accurate representation of the post-construction fill placement, the Contractor's as-built survey records will be used to compute the volume placed for payment purposes. The Engineer, at their discretion, may verify the as-built survey re-

sults of the Contractor. The Engineer's survey will be used for payment purposes if, in the Engineer's opinion, a significant difference is found between the Contractor's as-built survey and the Engineer's survey.

- 31.7 Check Surveys: The Contractor shall collect check profiles in the beach and dune fill area as required by the Engineer to document permit compliance and adherence to the contract documents. Check surveys will not be used to estimate fill volumes for payment.
- 31.8 Survey Field Notes Submittal: The Contractor shall submit survey field notes to the Engineer upon completion of each survey to expedite review of payment requests. All field notes, survey and volume computations, and the records used by the Contractor to compute the payment fill quantity shall be furnished to the Engineer with the Application for Progress Payment and Final Application for Payment.
- 31.9 Survey Discrepancy: If there is a discrepancy between surveys conducted by the Contractor and the Engineer, the respective surveyors will attempt to resolve the survey discrepancy. If an agreement cannot be reached, the Engineer's survey will be used as the basis for payment.
- 31.10 Grade Stakes: Any and all grade stakes used in the project area shall be composed of either cane poles or metal conduit pipe. The Contractor shall remove all grade stakes from each completed section immediately after the section has been completed. If metal conduit pipe is used, upon completion of construction in an area, the Contractor shall conduct a search using a suitable sensitive metal detector to find each and every stake placed by the Contractor in the area. The search and removal of all grade stakes shall be certified by the Contractor. The Contractor will not be eligible for payment until the Contractor certifies that all grade stakes have been removed. Sections of the beach upon which the search for, and removal of, grade stakes is complete shall be documented in the Daily Progress Report. Any grade stakes left in the fill area will be the sole responsibility and liability of the Contractor. Any injuries to people that may occur because grade stakes were left in the fill area by the Contractor will be the responsibility and the liability of the Contractor. If the Contractor fails to remove grade stakes in a timely manner, the Owner may have the stakes removed and deduct the cost from the Contractor's final payment. The Contractor shall maintain a log of the grade stakes documenting the placement and removal of each grade stake. The grade stakes shall be marked with the number, Station, and Range to facilitate logging.

TS-32 PRE-CONSTRUCTION AND AS-BUILT SURVEYS – MARSH

- 32.1 Survey Requirements: All profile surveys shall be conducted using either differential leveling techniques or GPS with RTK (real time kinetic) correction. If differential leveling techniques are used, the Contractor shall close all level loops and the closure shall be less than four hundredths of a foot (0.04'). All onshore points shall be within five feet (+/- 5') horizontally of the established profile line. All offshore points shall be within twenty feet (+/- 20') horizontally of the established profile line. The pre-construction surveys shall extend at least one hundred feet (100') landward (north) of the northern toe of the primary dike or northern top of the secondary fill source/access channels, whichever is most landward, and at least fifty feet (50') seaward (south) of the southern limit of marsh fill. The as-built survey shall extend at least 100 feet landward (north) of the northern toe of the primary dike or northern top of bank of secondary fill source/access channels, whichever is most landward, and at least fifty feet (50') seaward (south) of the southern limit of marsh fill. A six inch (6") diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking into the bottom when a survey rod is used to conduct marsh surveys. It may be feasible to survey the marsh pre-construction profiles with a fathometer. If the Contractor elects to survey with a fathometer, verification of its accuracy in shallow water shall be accomplished with rod and level or RTK GPS points every three hundred feet (300') along each profile. Submission of the fathometer record may be required to verify quality data was collected.

- 32.2 Profile Line Azimuths: Profile line surveys shall be conducted along the azimuth shown in the Plans. The survey baseline on each profile line is Range 0+00. Data points collected seaward (south) of the baseline shall be reported as a positive offset while data points landward (north) of the baseline shall have a negative offset. A sufficient number of points shall be taken along each line to ensure adequate description of topographic features, such as the primary dike, slope breaks, dike crest, and intersections of the fill with the existing grade or bottom, containment dikes, and beach section, with a maximum elevation difference of one foot (1') between adjacent points. Data points shall be taken at a spacing of not more than fifty feet (50'). The product shall be a continuous line representing the entire fill template of the marsh.
- 32.3 Survey Documentation: All survey work shall be documented with copies supplied to the Engineer. The as-built pay surveys may be conducted in the presence of the Engineer or their representative, at the option of the Engineer. The Contractor shall provide three (3) working Days advance notice to the Engineer prior to conducting surveys. The Contractor shall submit survey field notes to the Engineer upon completion of each survey to expedite review of payment requests. All field notes, survey and volume computations, and the records used by the Contractor to compute the Contractor's estimate of payment fill quantity shall be furnished to the Engineer with the Application for Progress Payment and Final Application for Payment.
- 32.4 Deliverables to the Engineer: Deliverables to the Engineer shall include hard copy form and electronic format of the survey in one of the ASCII formats appearing in Appendix III (preferably format #3). No other formats are acceptable. Additional information to be provided to the Engineer shall include any corrections and field notes.
- 32.5 Pre-Construction Marsh Survey: The Contractor shall conduct a pre-construction survey and submit it to the Engineer for use in the calculation of marsh fill volumes. The Contractor shall not commence construction of the marsh fill until all cross-sections, based upon the Contractor's marsh fill area pre-construction survey, have been incorporated into the Plans for the project and accepted by the Engineer, unless permission to proceed is provided in writing by the Engineer. A minimum of 14 working Days will be required to update the project Plans upon receipt of the pre-construction survey data.
- 32.6 Check Surveys: The Contractor shall collect check profiles in the marsh fill area as required by the Engineer to document permit compliance and adherence to the contract documents. Check surveys will not be used to estimate fill volumes for payment. The Contractor shall collect check profiles to document the construction access channels. Two parallel profiles along the length of the each access channel shall be collected after excavation of the channel and prior to marsh fill.
- 32.7 As-built Survey: The Contractor shall perform the marsh fill as-built survey no earlier than 30 Days following completion of marsh fill placement within a given fill section. The Contractor may perform the as-built survey in a similar manner as to the pre-construction survey. However, it is anticipated that the constructed marsh may be in a semi-liquid state and conventional surveying may be difficult. The Contractor must propose their marsh as-built survey method at least 14 Days prior to the Pre-Construction Conference and demonstrate that it will provide acceptable results before the Engineer approves this surveying method.
- 32.8 Survey Field Notes Submittal: The Contractor shall submit survey field notes to the Engineer upon completion of each survey to expedite review of payment requests. All field notes, survey and volume computations, and the records used by the Contractor to compute the payment fill quantity shall be furnished to the Engineer with the Application for Progress Payment and Final Application for Payment.
- 32.9 Survey Discrepancy: If there is a discrepancy between surveys conducted by the Contractor and the Engineer, the respective surveyors will attempt to resolve the survey discrepancy. If an agreement

cannot be reached, the Engineer's survey will be used as the basis for payment.

- 32.10 Grade Stakes: Any and all grade stakes used in the project area shall be composed of cane poles or metal conduit pipe to facilitate recovery of the stakes. The Contractor shall remove all grade stakes from each completed section immediately after the section has been completed. The Contractor will not be eligible for payment until the Contractor certifies that all grade stakes have been removed. Sections of the marsh upon which the search for, and removal of, grade stakes is complete shall be documented in the Daily Progress Report. Any grade stakes left in the fill area will be the sole responsibility and liability of the Contractor. Any injuries to people which may occur because grade stakes were left in the fill area by the Contractor will be the responsibility and the liability of the Contractor. If the Contractor fails to remove grade stakes in a timely manner, the Owner may have the stakes removed and deduct the cost from the Contractor's final payment. Stakes should be embedded sufficiently to be stable through the fill process and to be vertically stable and not subject to settlement. These stakes shall have the minimum and maximum tolerance elevation delineated in non-identical colors. A reference elevation shall be recorded on the top of each stake to enable verification that the stake has not settled during construction. Each stake shall clearly indicate the target marsh elevation of +2.5 feet NAVD88. The Contractor shall maintain a log of the grade stakes documenting the placement and removal of each grade stake. The grade stakes shall be marked with the number, Station, and Range to facilitate logging.

TS-33 PRE-CONSTRUCTION MAGNETOMETER SURVEY

Prior to any excavation, the Contractor shall call Louisiana One Call at 1-800-272-3020 to locate any utility lines in the area. The Contractor shall then perform a magnetometer survey of the access channels, excavation areas, conveyance corridor, turbidity control structure footprint, and submerged pipeline corridor. The survey shall be conducted using a Geometrics G-882 magnetometer or equivalent. A minimum of two (2) magnetometer survey lines shall be run along the length of the access channels, primary dike excavation areas, and turbidity control structure footprint. The Contractor shall perform, at a minimum, three (3) magnetometer survey lines within the Empire Waterway parallel to the conveyance corridor alignment. The Contractor shall perform a magnetometer survey within any borrow area prior to dredging. Survey lines shall be spaced sufficiently to adequately detect pipelines, utilities, or obstructions within the conveyance corridor or borrow area. The Contractor shall submit the proposed survey alignment for the conveyance corridor with the Work Plan along with a listing and description of the equipment to be used in the Work Plan for approval by the Engineer prior to conducting surveys. The Contractor shall submit the results and interpretation of the magnetometer survey at least three (3) Days prior to any excavation.

TS-34 PRE-CONSTRUCTION, POST CONSTRUCTION, AND AS-BUILT SURVEYS – BORROW AREAS

- 34.1 The Contractor shall perform pre-construction and as-built bathymetric surveys in borrow areas MR-A and/or MR-B and/or MR-E if these borrow areas are used in construction of the project. The surveys shall cover the entire borrow area even if only a section of the borrow area has been dredged. The surveys may be either single-beam or multi-beam bathymetry. For single beam, the with-current survey lines shall be no more than 50-feet apart with sufficient cross-current tie lines to verify the with-current lines. Regardless, the single beam cross-current tie-lines shall be no more than 500 feet apart. The multi-beam survey shall have 100% coverage with sufficient tie lines to verify the data.
- 34.2 The Contractor shall perform pre-construction, post-construction (pay), and as-built bathymetric surveys of Borrow Area 35-E to determine pay quantities for hydraulic placement of marsh fill. The post-construction survey is defined as the survey for pay and does not have to cover the entire borrow area. The as-built survey is the final survey of the entire borrow area used for documentation purposes and shall cover the entire borrow area. The Contractor shall delineate the area to be surveyed for pay; all sections of the borrow area may be surveyed once to determine pay volumes for hydraulic placement

of fill. The bathymetric surveys shall be at a grid spacing of no more than 50 feet (survey lines shall be oriented north-south and east-west).

- 34.3 For all borrow area surveys, the survey lines shall extend a minimum of 100 feet from the edge of the area to be surveyed. A bathymetric plot and an electronic copy of the bathymetric survey shall be furnished to the Engineer in a format provided in Appendix III (preferably format #3). Bar check results, the survey scroll or BIN file, and verification of real-time tide corrections shall also be furnished to the Engineer. Bathymetric surveys not tide corrected in real-time will not be accepted. The bathymetric survey shall be performed using a Model 449 Innerspace depth sound recorder or equivalent using a single beam at 209 KHz. Hydrographic surveys shall be performed in accordance with EM 1110-2-1003, dated 30 November 2013. A final as-built borrow area survey shall be conducted and the data submitted prior to payment for as-built surveys.
- 34.4 Tide Correction: All vertical measurements shall be tide corrected and reported in NAVD88; predicted tides will not be accepted. The Contractor shall use measured tides for all hydrographic surveying tidal corrections. Tidal measurements shall be made within 3 miles of the area to be surveyed along the open Gulf of Mexico coast and not within a navigation channel (such as Empire Waterway) or in Bastian or Caprien Bays unless a tide study conducted by the Contractor and accepted by the Engineer supports the use of tide gages in the navigation channels or in the bay. Tides shall be corrected in real-time using a telemetry based system. Data will only be accepted when the signal is present allowing for real-time tidal corrections.

TS-35 PRE-CONSTRUCTION SURVEYS – CONVEYANCE CORRIDOR

- 35.1 General: Survey lines shall be surveyed perpendicular to the conveyance corridor alignment. Survey lines shall be surveyed every five hundred feet (500') along the conveyance corridor alignment from Station 00+00 to 475+00 except where specified for crossings at Highway 11, Louisiana Highway 23, Empire Harbor Canal, navigational crossings, and booster pump locations. Survey lines shall also be surveyed every five hundred feet (500') along the submerged pipeline corridor alignments from Borrow Area 35-E to Shell Island East and West. Survey lines shall extend one hundred fifty feet (150') beyond the limits of the conveyance corridor and submerged pipeline corridors.
- 35.2 Highway 11 Crossing: Survey lines shall be surveyed parallel to the conveyance corridor alignment. Survey lines shall include a survey line along the conveyance corridor alignment and three (3) survey lines spaced at twenty-five foot (25') intervals from, and to each side, of the conveyance corridor alignment. Survey lines shall extend from conveyance corridor alignment Stations 004+50 to 008+20.
- 35.3 Empire Harbor Canal Crossing: At Empire Harbor Canal crossing the survey lines should be perpendicular to the conveyance corridor alignment and spaced at fifty foot (50') intervals from conveyance corridor alignment Stations 18+00 to 23+00. All survey lines shall extend one hundred fifty feet (150') beyond the limits of the conveyance corridor.
- 35.4 Louisiana Highway 23 Crossing: Survey lines shall be surveyed parallel to the conveyance corridor alignment. Survey lines shall include a survey line along the conveyance corridor alignment and three (3) survey lines spaced at twenty-five foot (25') intervals from, and to each side, of the conveyance corridor alignment. Survey lines shall extend from conveyance corridor alignment Stations 035+20 to 041+30.
- 35.5 Navigational Crossings: At navigational crossings the survey lines should be perpendicular to the conveyance corridor alignment and spaced at fifty foot (50') intervals from three hundred feet (300') before the navigational crossing centerline to three hundred feet (300') beyond the navigational cross-

ing centerline measured along the corridor alignment and shall include all temporary sidecast disposal areas. All survey lines shall extend one hundred fifty feet (150') beyond the limits of the conveyance corridor.

- 35.6 Booster Pump Locations: At booster pump locations the survey lines should be perpendicular to the conveyance corridor alignment and spaced at fifty foot (50') intervals from five hundred feet (500') before and five hundred feet (500') beyond the proposed center location of the excavation for booster pump cooling and shall include all temporary sidecast disposal areas. All survey lines shall extend one hundred fifty feet (150') beyond the limits of the conveyance corridor.

TS-36 AS-BUILT SURVEYS – CONVEYANCE CORRIDOR

The conveyance corridor including highway, canal, and navigational crossings, booster pump locations utilized, and temporary sidecast disposal areas shall be surveyed as specified in TS-35 by the Contractor following removal of the sediment pipeline and completion of construction activities.

TS-37 AS-BUILT SURVEY – ACCESS CHANNEL

Following excavation of the access channels and construction of the primary dike but prior to the hydraulic placement of marsh fill, the Contractor shall survey the complete length of the access channels (primary and, if excavated, the secondary fill sources for the primary dike). The survey shall consist of three (3) survey lines spaced fifty feet apart and centered on the centerline of the access channels. A bathymetric plot and an electronic copy of the bathymetric survey shall be furnished to the Engineer in a format provided in Appendix III (preferably format #3). Bar check results, the survey scroll or BIN file, and verification of real-time tide corrections shall also be furnished to the Engineer. Bathymetric surveys not tide corrected in real-time will not be accepted. The bathymetric survey shall be performed using a Model 449 Innerspace depth sound recorder or equivalent using a single beam at 209 KHz. Hydrographic surveys shall be performed in accordance with EM 1110-2-1003, dated 30 November 2013. The cost of this survey shall be included in Line Item 006, Primary Containment Dikes. This survey is not for payment purposes but will be used to document the general condition of the access channels prior to filling.

TS-38 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 navigable waterways 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 transfers.

TS-39 WORK AREA AND TEMPORARY FENCING

The construction and borrow area limits available to the Contractor for accomplishing the Work are shown in the Plans. The Contractor shall accomplish the Work in such a manner so as to minimize disruption to boat traffic. The Contractor will be required to exclude the public, for safety purposes, from the Work areas in the immediate vicinity of the hydraulic fill placement, grading and transporting operations, or any other area which may be dangerous to the public. The storage areas shall be kept neat, orderly, and in a safe manner. Temporary fencing and cautionary signage shall be used by the Contractor, if necessary, to exclude the public from Work and storage areas.

TS-40 CONSTRUCTION ACCESS

The Contractor shall limit construction access to the fill area to the locations shown in the Plans or as approved by the Engineer. The Contractor may dredge the construction access channels as shown in the Plans. This material shall be placed within the designated areas noted in the Plans or used to construct the primary containment dike. The access features (ramps, roads, etc.) must be restored to the pre-construction condition upon project completion at the cost of the Contractor, except as noted in the Plans. The Contractor shall exercise caution when accessing and driving in the fill area with vehicles or Equipment. In the event that damage is caused by the Contractor outside the authorized dredge and fill areas, the Contractor shall restore all damage to inlet jetties, vegetation, or any other structure or natural feature to pre-construction conditions or better. The Contractor will not receive final payment until all damage is restored to the satisfaction of the Owner and Engineer.

- 40.1 Spoil Area: Paralleling either side of the construction access channels, spoil areas have been identified to place material excavated while accessing the project site. Material may be placed within the spoil area such that the final grade elevation does not exceed +3.0 feet, NAVD88 upon completion of the project. Rehandling of the material placed within the areas designated solely as spoil areas is not permitted.
- 40.2 Spoil and Rehandling Area: Paralleling either side of the access channels, spoil and rehandling areas have been identified to place material excavated while accessing the project site. Material may be placed within the spoil and rehandling areas up to an elevation of +7.0 feet, NAVD88. Material placed in these areas and above +3.0 feet, NAVD88 may be used to backfill the access channel and construct the primary dike. Upon completion of the project, the contractor will be required to grade the spoil and rehandling areas to achieve a final elevation not to exceed +3.0 feet, NAVD88.

TS-41 MISPLACED MATERIAL, PLANT MACHINERY, EQUIPMENT OR APPLIANCE

Should the Contractor, during the progress of the Work, lose, discard, throw overboard, sink, or misplace any material, plant, machinery, equipment, or appliance, which in the opinion of the Engineer should be removed, the Contractor shall recover and remove the same with the utmost dispatch. The Contractor shall give immediate notice, with description and location of such material, plant, machinery, equipment, or appliance, to the Engineer. Should the Engineer discover such material, plant, machinery, equipment, or appliance, the Engineer may locate through electronic means or buoy the material, plant, machinery, equipment, or appliance, and may notify the Contractor of its location. Removal of the material, plant, machinery, equipment, or appliance shall be the responsibility of the Contractor and cost of the removal will be paid for by the Contractor. Should the Contractor refuse, neglect, or delay compliance with the above requirements, such material, plant, machinery, equipment, or appliance 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 the Contractor's Bond. The liability of the Contractor for the removal of a vessel wrecked or sunk without fault or negligence shall be limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33-U.S.C. 410 et.seq.), or most recent version, if any.

TS-42 FINAL CLEAN-UP

Final clean-up shall include the removal of the Contractor's plant and all Equipment or Materials either for disposal or reuse. The Contractor shall remove all non-perishable debris, trash, and garbage from the site of Work prior to Final Acceptance. Plant and/or Equipment or Materials to be disposed of shall only be disposed of in a manner and at locations approved by the Engineer. 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, water areas, underwater in the Gulf of Mexico, Bastian Bay or in any harbors, passes, or inlets, or other areas adjacent to the Work site. Any stakes or other markers placed by the Contractor must be removed as a part of the final clean-up. All stakes, including grade stakes, placed during the fill operation shall be completely removed and shall not be left buried in the fill. Upon completion of

the final clean-up (i.e. removal of all stakes, debris, and equipment), the beach/dune fill shall be redressed to eliminate any undrained pockets, ridges, and depressions in the hydraulic fill surfaces prior to Final Acceptance; the Contractor may use a dragged pipe for this task.

End of PART III TECHNICAL SPECIFICATIONS

PART IV ENVIRONMENTAL PROTECTION PROVISIONS

EP-1. SCOPE

The Environmental Protection of the Contract Documents address Contractor responsibilities for the prevention of pollution and other environmental damage as the result of construction operations under the Contract Documents, including those measures set forth in the Technical Specifications. For the purpose of this Specification, pollution and other environmental damage are defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; degrade the utility of the environment for aesthetic, cultural, and/or historical purposes; or unnecessarily damage/destroy environmental resources. The control of pollution and damage requires consideration of air, water, land, and the marine environment and includes management of construction activities, visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants. The Contractor shall fulfill these Environmental Protection Provisions at the Contractor's expense.

EP-2. QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection for all items set forth herein. The Contractor shall record in the Daily Progress Report any problems in complying with laws, regulations, and ordinances, as well as project permits, and corrective action taken.

EP-3. PERMITS

The Contractor shall comply with all requirements under the terms and conditions set out in all permits applicable to the Work. The Owner has received the appropriate permits and approvals from the Louisiana Department of Natural Resources (LDNR), the U.S. Army Corps of Engineers (USACE), and the Louisiana Department of Environmental Quality (DEQ). These permits are included in the Appendices and are part of the Contract Documents. Specifically, the Contractor will familiarize themselves with general and specific conditions contained in the LDNR Coastal Use permit, the USACE 404 permit, the Louisiana DEQ permit and the Louisiana Department of Wildlife and Fisheries (LDWF) Fill Area permit. Any other licenses, easements, or approvals required, including, but not limited to, those which may be required by Plaquemines Parish, or the Owner, shall be secured and paid for by the Contractor.

EP-4. SUBCONTRACTORS

Assurance of compliance with all sections of the Contract by Subcontractors shall be the responsibility of the Contractor, including compliance with all environmental and permit requirements.

EP-5. NOTIFICATION

The Engineer will notify the Contractor of any known noncompliance with the aforementioned Federal, State, or Local laws or regulations, permits, and other elements of the Contractor's environmental protection plan. Nevertheless, it remains the sole responsibility of the Contractor to comply with all applicable Federal, State, or Local Laws and Regulations, permits, and all elements of the Environmental Protection Plan (EPP). If there is known non-compliance, the Engineer will determine what action will be taken and such response will be transmitted to the Contractor by the Engineer, which may include stopping construction of the project until the Contractor complies with the EPP. It will also be the Contractor's responsibility that all Subcontractors shall com-

ply with all applicable laws, regulations, permit requirements, and all elements of the EPP.

EP-6. PROTECTION OF ENVIRONMENTAL RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent Work under this Contract shall be protected during the entire period of this Contract. To meet this requirement, the Contractor shall confine all activities to areas defined by the Plans and Specifications. The Contractor shall, at all times, maintain adequate stakes or other markers required to delineate and layout work areas, access areas and corridors, protected land or environmental resources, no entrance areas, and sensitive areas to ensure the protection of resources. The disturbance of lands and waters that are outside the limits of construction as marked in the Plans is prohibited, except as found necessary and approved by the Engineer. The Contractor shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials into streams, lakes, marshlands, bays, or the Gulf of Mexico. The Contractor shall also conduct his work in such manner as to prevent the placement of any fill material and the discharge of project-related discharges of turbid effluent and runoff into streams, lakes, marshlands, bays, or the Gulf of Mexico. All waterways shall be cleared as soon as practicable of false work, stakes, piling, debris, or other obstructions placed during construction operations and not a part of the finished Work. Details regarding environmental protection shall be as stated in the following subparagraphs.

- 6.1 Protection of Land Resources: Prior to the beginning of any construction, and at the request of the Contractor, the Owner and Engineer shall identify land resources (if any) to be preserved within the Contractor's Work area. Unless indicated in the Plans or directed by the Owner, the Contractor shall not remove, cut, deface, injure, or destroy land resources including sand dune, marsh or berm vegetation, trees, shrubs, vines, grasses, topsoil, and landforms without direct written permission from the Engineer. No ropes, cables, or guys shall be fastened or attached to any trees for anchorage unless specifically authorized by the Engineer. Where such special emergency use is allowed, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following paragraphs. The Contractor will be responsible for the replacement of any damaged or destroyed vegetation outside the fill area and the restoration of any water bottoms and land forms to the satisfaction of the Engineer. Failure to replace damaged or destroyed vegetation or failure to restore damaged water bottoms and land forms outside the fill area by the Contractor may result in replacement by the Owner; the cost of replacement will be deducted from monies due to the Contractor or from monies that will be due to the Contractor by the Owner.
- 6.2 Work Area Limits: Isolated areas (if any) within the Work area that are to be saved and protected shall be identified by the Engineer and marked or fenced by the Contractor. All survey monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be made visible by lighting. The Contractor shall convey to all Subcontractors and personnel the purpose of marking and/or protection for all necessary objects.
- 6.3 Retardation and Control of Runoff: Runoff from the construction site shall be controlled by the Contractor by the construction, maintenance, and operation of primary and secondary retention dikes, temporary water control structures or spill boxes, routing of effluent and discharge through fill and water discharge areas, use of turbidity control measures such as silt curtains, and active management of all effluent, discharge, and runoff. Dikes will be constructed as shown in the Plans and described in the Technical Specifications and maintained in continuous repair to allow settling of fine materials from dredging, or as required by permit documents.
- 6.4 Disposal of Solid Wastes: Solid wastes (including cleared debris) and rubbish resulting from the Contractor's activities shall be picked up daily and placed in containers. These containers shall be removed from the beach area and emptied on a regular schedule. The Contractor shall empty containers when three-quarters full and will avoid overflow conditions. The Contractor shall not burn any rubbish at the Project Site. Disposal of rubbish shall be at an approved off-site location and in a manner

that complies with State and Local Laws and Regulations. The Contractor shall be solely responsible for all costs associated with the collection, removal, and disposal of rubbish. All handling and disposal shall be conducted to prevent contamination. No steel, cables, wire, pipe, drums or any other solid waste or debris shall be permitted to be disposed overboard into the waters of the Gulf of Mexico or any other water body. Disposal of solid wastes or debris in the Gulf of Mexico is a violation of State and Federal laws. If such debris is found, the debris shall be removed by the Contractor at his own cost, or the Owner shall remove the debris and the cost of removal will be deducted from monies due, or will become due, to the Contractor from the Owner.

- 6.5 Disposal of Chemical Waste: Chemical waste shall be stored in corrosion resistant containers, removed from the work area, and disposed of in accordance with Federal, State, and Local regulations. The Contractor shall perform all maintenance of Equipment, including, but not limited to, refueling, filter changes, and replacement of hydraulic lines in a manner so as not to contaminate soils, ground or surface waters, or any other natural resources.
- 6.6 Disposal of Discarded Materials: Discarded materials other than those which can be included in the solid waste category will be handled by the Contractor as directed by the Engineer.
- 6.7 Use of Equipment: Outside the fill areas as marked in the Plans, any wheeled or tracked vehicle used on the Project Site is prohibited in and adjacent to existing vegetated wetlands, bay shorelines, gulf shorelines, or any other sensitive areas, unless authorized by the Engineer. Any damage to wetland vegetation or change in the existing elevation (e.g., ruts, tracks, inappropriate excavation) of greater than six inches (6") in wetland areas, bay bottom, flats, etc., occurring on the site or adjacent property, as a result of construction operations, shall be repaired by the Contractor, at no additional expense to the Owner. Marsh buggy use on existing vegetated areas and wetlands outside of the fill areas is strictly prohibited.
- 6.8 Siltation / Turbidity Control: The Contractor shall conduct Work in a manner that will not cause damaging siltation or pollution of any water bodies. All applicable Federal and State regulations of agencies and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the Contract.
- 6.9 Protection of Water, Fish, and Wildlife Resources: The Contractor shall keep construction activities under continued surveillance, management, and control to minimize interference with, disturbance to, and damage of water, fish, and wildlife resources. Species that require specific consideration, as well as measures for their protection, will be addressed in the Contractor's EPP prior to the beginning of project construction.
- 6.10 Protection of Commercial Fisheries: The Contractor shall note that bays, water bottoms, creeks, and ponds in the vicinity of the project may include numerous publicly- and privately-issued leases for the cultivation and harvest of commercial fishery resources. The location of publicly-issued oyster leases in the vicinity of the project is depicted in Appendix IX. The Contractor shall conduct all aspects of its operations to avoid any and all impacts to such leases.
- 6.11 Water Discharge: Water overflow from marsh and beach fill construction activities may be discharged into the Gulf of Mexico and Bastian Bay. The dewatering locations are shown in the Plans, but the number of discharges is at the discretion of the Contractor. The Contractor must provide a Turbidity Control Plan detailing means and methods for any discharge of water outside the project footprint. The plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains shall be used at all outflow areas. The Turbidity Control Plan must be submitted to the Owner fourteen (14) Days prior to the Pre-Construction Conference.
 - 6.11.1 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. The rate of discharge must be manually controllable with the ability to completely shut off dis-

charge through the structure.

- 6.11.2 In the event that the Owner or Engineer observes signs of the discharge of turbid waters which form noticeable plumes outside the limits of work, the Owner may, at its sole discretion, require that the Contractor immediately initiate twice daily turbidity sampling with reports submitted to the Owner. No additional compensation will be paid to the Contractor for this work.
- 6.12 Protection of Air Resources: The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, Equipment, processes, and Work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Louisiana and all Federal emission and performance laws and standards.
- 6.13 Dispensing of Fuel: Secondary containment, which is capable of holding at a minimum 110% of the tank contents, must be provided by the Contractor for each fuel storage tank. Fuel dispensers shall have a four foot by four foot (4' x 4'), 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be eight inches (8") minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the Contractor shall immediately contain the spill and contact the Owner and the appropriate local authorities. The Contractor will be solely responsible for any fines, penalties, or other legal activities related to fuel spills.
- 6.14 Temporary Sanitary Facility: The Contractor shall furnish and maintain chemical toilets for use by its employees, Subcontractors, Engineer, Resident Project Representative, and the Owner on the Project Site. Chemical toilets shall be cleaned on a regular basis to ensure that odor does not become a nuisance. The Contractor shall be responsible to coordinate, maintain, and monitor a cleaning schedule that is appropriate for the number of Contractor personnel on site.
- 6.15 Storage of Lubricants: All lubricants and other potential liquid pollutants shall be stored in sealed, non-corrosive containers. Individual containers shall be stored in metal pans with borders banded up and welded at the corners right below the bibb. Pans shall be deep enough to prevent contamination of the ground. Pans shall be kept clean of all spillage or leakage.

EP-7. PROTECTION OF MIGRATORY AND OTHER PROTECTED BIRDS

- 7.1 The Contractor shall take nonlethal hazing measures to discourage the establishment of birds nesting in the project areas beginning no later than April 15. The purpose of this requirement is to discourage the nesting of birds protected by the U.S. Fish and Wildlife Service (USFWS) and the LDWF. Protected bird species most likely to be encountered include, but are not limited to, least terns, black skimmers, and brown pelicans. The Contractor is encouraged to employ personnel familiar with protected birds to allow for easy identification of birds encountered during the execution of Work under this Contract.
- 7.2 The Contractor shall patrol twice daily gulf-side beaches, associated sand flats and overwash areas, and island fill areas to identify any nesting birds from April 15 through September 15. This effort includes not only existing beaches, dunes and sand flats, but dunes, dune slopes, marsh flats, and other areas of island fill created during the execution of Work. The Contractor shall especially patrol/traverse unvegetated or sparsely vegetated sand flats, overwash areas, and island fill areas, such as the created dune, which are prime nesting habitat. The Contractor should note that created island habitat are premium nesting habitats; consequently, increased patrols of created island habitat may be required to preclude the initiation of nesting on these areas prior to the installation of sand fencing. Such patrols shall continue throughout the period of construction, or until all Work (including grading and shaping, sand fence installation, and access activities) is completed for acceptance sections. In the

event that the Contractor discovers any evidence of nests or eggs of any protected bird species, the Contractor shall immediately cease Work in the immediate vicinity of the nest and shall immediately notify the Owner and Engineer. The Contractor may propose measures in addition to twice daily patrols for Engineer consideration.

- 7.3 The Contractor shall include a description of daily patrols (personnel, locations, time), the patrol results (any bird observations, species observed, location, behavior, nests found), and any actions taken as a result of such patrols or observations in the Daily Progress Reports.

EP-8. POST CONSTRUCTION CLEAN-UP

The Contractor shall clean-up any area used for construction as stated in General Provisions.

EP-9. RESTORATION OF LANDSCAPE DAMAGE

The Contractor shall restore all landscape features, land resources, water resources, and fish and wildlife resources damaged or destroyed during construction operations outside the limits of the approved Work areas. Such restoration shall be in accordance with a plan submitted for approval by the Engineer. This Work will be accomplished at the Contractor's expense. Final payment to the Contractor shall not occur until the Engineer is satisfied with the Contractor's effort to restore landscape or any other damage caused by the Contractor or his Subcontractors.

EP-10. MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain constructed facilities and portable pollution control devices for the duration of the Contract or for that length of time construction activities create the particular pollutant.

EP-11. FUEL OIL TRANSFER OPERATIONS

In accordance with the U.S. Coast Guard regulations (33 CFR 156.120, or as revised or updated), couplings used in fuel oil transfer operations on any vessel with a capacity of two hundred fifty (250) or more barrels of oil (or fuel) shall be either a bolted or full-threaded connection; or a quick-connect coupling approved by the Commandant; or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker man shall be completed for each refueling operation. The U.S. Coast Guard shall also be notified prior to any refueling.

EP-12. SUBMITTALS

- 12.1 Environmental Protection Plan (EPP): At least fourteen (14) Days prior to the Pre-Construction Conference, the Contractor shall submit in writing an Environmental Protection Plan to the Engineer. Acceptance of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. The EPP shall include, but not be limited to, the following:

12.1.1 Methods for protection of features and habitats to be preserved within authorized Work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e. all vegetation, trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological and cultural resources, and environmental resources.

12.1.2 Procedures to be implemented by the Contractor to assure compliance with the environmental protection requirements outlined in Section EP-6 of the Environmental Protection Provisions

and to comply with the applicable permits, laws, and regulations. The Contractor shall address each element of Environmental Protection described in Section EP-6 of the Environmental Protection Provisions. The Contractor shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the EPP.

- 12.1.3 Procedures to be implemented by the Contractor to assure compliance with protection of water, fish and wildlife resources requirements of Section EP-6 of the Environmental Protection Provisions and to comply with the applicable permits, Laws and Regulations. The Contractor shall address each element of Protection of Water, Fish and Wildlife described in Section EP-6 of the Environmental Protection Provisions. The Contractor shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the EPP.
- 12.1.4 A list of Federal, State, and Local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.
- 12.1.5 Drawings showing locations of any proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.
- 12.1.6 Environmental monitoring plans for the jobsite, including land, water, air, and noise monitoring.
- 12.1.7 Turbidity Control Plan which describes measures to be taken by the Contractor to avoid the discharge of turbid, silt-laden, water from the project area sufficient to ensure that water bodies, wildlife, and fisheries resources, including commercial fisheries resources, will not be damaged. The Contractor must provide a Turbidity Control Plan detailing means and methods for controlling any discharge of water outside the project footprint. The plan must contain methods to limit turbidity and sedimentation in open water. Turbidity curtains shall be used at all outflow areas.
- 12.1.8 Oil spill prevention plan.
- 12.1.9 Oil spill contingency plan.
- 12.1.10 A protection plan for threatened and/or endangered species within the project area.
- 12.1.11 Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. The plan should include measures for marking the limits of use areas.
- 12.1.12 The location of the solid waste disposal area.
- 12.1.13 A statement as to the person who will be responsible for implementation of the EPP. The Contractor personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.
- 12.1.14 A statement acknowledging that the Contractor is responsible for environmental protection, including all of the Contractor's personnel and Subcontractors.
- 12.1.15 The EPP will be dated and signed by an individual of top management in charge of

the construction.

EP-13. NOISE CONTROL

The Contractor shall comply with all Federal, State, and Local sound control and noise level ordinances, regulations, and laws that apply to the Project Site. All hauling and excavating Equipment, including dredges, used on this Work shall be equipped with satisfactory mufflers or other noise abatement devices. Booster pumps used on this Work shall be equipped with either or both satisfactory mufflers and other sound abatement devices to reduce engine noise. The Engineer may request the Contractor to construct a sound barrier landward of booster pumps in order to reflect noise offshore.

End of PART IV ENVIRONMENTAL PROTECTION PROVISIONS