BID DOCUMENTS FOR

GRAND LIARD MARSH AND RIDGE RESTORATION (BA-68)

PLAQUEMINES PARISH, LOUISIANA





STATE OF LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY

OCTOBER 8, 2013



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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 January 16th, 2014.

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: Grand Liard Marsh and Ridge Restoration

PROJECT NUMBER: **BA-68**

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: <u>cpra.bidding@la.gov</u> 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 <u>MANDATORY</u> PRE-BID CONFERENCE WILL BE HELD at <u>9:00AM CST</u> on <u>Tuesday</u>, <u>December 17th, 2013</u> at <u>Buras Auditorium, 35619</u> <u>Highway 11, Buras, LA 70041.</u>

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

A HIGHLY ENCOURAGED JOBSITE VISIT WILL BE HELD at <u>12:30 PM CST</u> on <u>Tuesday</u>, <u>December 17th, 2013</u> at <u>the Yellow Cotton Marina at</u> <u>the end of Duvic Pump Road in Boothville-Venice, LA</u>

The jobsite visit is not mandatory, but it is highly encouraged for those submitting a bid. The Jobsite Visit being conducted by CPRA will facilitate access to project features that are located on **private property**. Outside of the recommended site visit, the Contractor may not have access to the features located on private property. As the project area will be accessible by boat, an airboat **will not** be required for the Jobsite Visit. Contractors shall be responsible for providing their own transportation to the project area and any boat launching fees.

Contact Kenneth Bahlinger at (225) 342-7362 if directions are needed to the Mandatory Pre-Bid Conference or the highly encouraged Jobsite Visit.

Bids shall be accepted from Contractors who are licensed under LA. R.S. 37:2150-2163 for the classification of <u>Heavy Construction</u>. 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 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 (A)(1)(c). No bid may be withdrawn for a period of thirty (30) 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 (A) (1)(b), the provisions and requirements of this Section, those stated in the advertisement bids, and those required on the bid form shall not be considered as informalities and shall not be waived by any public entity.

When this project is financed either partially or entirely with State Bonds or federal funds, the award of this Contract is contingent upon the granting of lines of credit, the sale of bonds by the Bond Commission or the commitment of federal 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 Entrepreneurship 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** (400) consecutive calendar days for the Base Bid, subject to such extensions as may be granted under Section GP-44 of the General Provisions and acknowledges that this construction time will start on or before the date specified in the written "Notice to Proceed" from the Owner.

LIQUIDATED DAMAGES:

The Bidder shall agree to pay as Liquidated Damages the amount of **Two Thousand One Hundred Fifty Dollars (\$2,150.00)** 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 shall 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 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. Contractors who are not in attendance for the entire Pre-Bid Conference will be considered to have not attended.

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

ARTICLE 3

BIDDER'S REPRESENTATION

3.1 Each Bidder by making his bid represents that:

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

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

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

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

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

3.2 The Bidder must be fully qualified under any State or local licensing law for Contractors in effect at the time and at the location of the work before submitting his bid. In the State of Louisiana, Revised Statutes 37:2150, et seq. will be considered, if applicable.

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

ARTICLE 4

BID DOCUMENTS

4.1 Copies

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

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

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

4.1.2 Complete sets of Bid Documents shall be used in preparing bids; neither the Owner nor the Engineer assumes 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 model numbers, drawings, cuts, performance and test data and any other information necessary for an A statement setting forth any evaluation. 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 plans and specifications 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. Facility Planning shall be consulted prior to issuance of such an addendum and shall approve such issuance. 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 and shall be signed by the person or persons legally authorized to bind the Bidder to a Contract.

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

(a) Signature on bid is that of any corporate

officer or member of a partnership or partnership in commendam listed on most current annual report on file with Secretary of State.

(b) Signature on bid is that of authorized representative of corporation, partnership, or other legal entity and bid is accompanied by corporate resolution, certification as to the corporate principal, or other documents indicating authority.

(c) Corporation, partnership, or other legal entity has filed in the 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. 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 Facility Planning and Control 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, Office of Facility Planning and Control, 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 Facility Planning and Control 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, <u>and license number</u> 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.0. 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 the Owner mitigate the General shall 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) each 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 approved for an amount equal to or greater than the contract amount, or must be an insurance company domiciled in Louisiana or owned by Louisiana residents. If surety is qualified other than by listing on the Treasury list, the contract amount may not exceed fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance and may not exceed the amount of \$500,000. However, a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A. M. Best's Key Rating Guide shall not be subject to the \$500,000 limitation, provided that the contract amount does not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide nor fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance. The Bond shall be signed by the surety's agent or attorney-in-fact. The Bond shall be in favor of the Coastal Protection and Restoration Authority.

8.2 Time of Delivery and Form of Bond

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

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

8.2.3 The Bidder shall require the

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

ARTICLE 9

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 Form to be Used

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

9.2 Award

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

9.2.2 In accordance with Louisiana Law, when the Contract is awarded, the successful Bidder shall, at the time of the signing of the Contract, execute the Non-Collusion Affidavit included in the Contract Documents

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM

FO: Facility Planning and Control	BID FOR:	Grand Liard
P.O. Box 94095		Marsh and Ridge
Claiborne Building		Restoration Project
Baton Rouge, LA 70804		(BA-68)

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: the Coastal Protection and Restoration Authority and dated: October 8, 2013.

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

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

Dollars (\$)

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

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

Not Applicable	Dollars (\$	Not Applicable)
Alternate No. 2 (Not Applicable) for the lump sum of:		
Not Applicable	Dollars (\$	Not Applicable)
Alternate No. 3 (Not Applicable) for the lump sum of:		
Not Applicable	Dollars (\$	Not Applicable)
NAME OF BIDDER:		
ADDRESS OF BIDDER:		
LOUISIANA CONTRACTOR'S LICENSE NUMBER:		
NAME OF AUTHORIZED SIGNATORY OF BIDDER:		
TITLE OF AUTHORIZED SIGNATORY OF BIDDER:		
SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDE	R **:	
DATE:		

* The <u>Unit Price Form</u> 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(A)(1)(c) or RS 38:2212(O).

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:	Grand Liard

Marsh and Ridge______ Restoration Project

restoration

<u>(BA-68)</u>

(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:	Base Bid or	Alt.# Mobilization	and Demobilization	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
1	1	Lump Sum		
DESCRIPTION:	Base Bid or	Alt.# Clearing and	Grubbing	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
2	1	Lump Sum		
DESCRIPTION:	🛛 Base Bid or 🗆	Alt.# Marsh Creati	on Hydraulic Dredging	
REF. NO.	QUANTITY:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
3	3,442,824	Cubic Yard		
DESCRIPTION:	⊠ Base Bid or □	Alt.# Earthen Cont	tainment Dike	
REF. NO.	QUANTITY:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
4	29,275	Linear Foot		
DESCRIPTION:	🛛 Base Bid or 🗆	Alt.# Earthen Ridg	je	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
5	16,780	Linear Foot		
DESCRIPTION:	Base Bid or	Alt.# Construction	Surveys	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
6	1	Lump Sum		
DESCRIPTION:	Base Bid or	Alt.# Steel Sheet P	Piling	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
7	45,626	Square Foot		
DESCRIPTION:	🛛 Base Bid or 🗆	Alt.# Sand Fill		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
8	22,569	Cubic Yard		

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

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

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:	Grand Liard

Marsh and Ridge_____ Restoration Project

(BA-68)

(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:	Base Bid or	Alt.# Settlement P	lates		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
9	11	Each			
DESCRIPTION:	Base Bid or	Alt.# Access Dred	ging		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
10	1	Lump Sum			
DESCRIPTION:	Base Bid or	Alt.# Pipeline Ren	noval		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
11	1	Lump sum			
DESCRIPTION:	Base Bid or	Alt.# Not Applical	ole		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable
DESCRIPTION:	Base Bid or	Alt.# Not Applical	ole		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable
DESCRIPTION:	Base Bid or	Alt.# Not Applical	ole		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable
DESCRIPTION:	Base Bid or	Alt.# Not Applical	ole		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable
DESCRIPTION:	Base Bid or	Alt.# Not Applical	ole		
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
Not Applicable	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

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) **GRAND LIARD MARSH & RIDGE RESTORATION PROJECT (BA-68)** Name of Project

<u>BA-68</u> Project No.

STATE OF ______

PARISH OF _____

ATTESTATIONS AFFIDAVIT

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

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

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

(a) Public bribery (R.S. 14:118)(b) Corrupt influencing (R.S. 14:120)

(c) Extortion (R.S. 14:66)(d) Money laundering (R.S. 14:23)

- B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:
 - (a) Theft (R.S. 14:67)
 (b) Identity Theft (R.S. 14:67.16)
 (c) Theft of a business record (R.S.14:67.20)
 (d) False accounting (R.S. 14:70)
 - (e) Issuing worthless checks (R.S. 14:71)

- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Contractors; misapplication of payments (R.S. 14:202)
- (i) Malfeasance in office (R.S. 14:134)

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

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

<u>BA-68</u> 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 _____, 2013, 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:

<u>Statement of Work</u>: 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. _____
 Site Code _____

 State ID No. _____
 Site Code _____

in strict accordance with Contract Documents prepared by Owner.

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

<u>Time for Completion</u>: 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.

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

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 <u>eight (8)</u> counterparts, each of which shall, without proof or accountancy for the other counterparts, be deemed an original thereof.

WITNESSES:	COASTAL PROTECTION AND RESTORATION AUTHORITY				
	BY:				
	Jerome Zeringue, Executive Director				
	BY:				
	SURETY:				
	BY: ATTORNEY IN FACT				
	ADDRESS				

TELEPHONE NUMBER

STATE OF LOUISIANA

_

_

STATE OF LOUISIANA PARISH OF _____

PROJECT NO.	
NAME	
LOCATION:	

AFFIDAVIT

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

PART I.

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

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 d.

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 _____, 2013.

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 wellknown technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

- a. <u>Acceptance</u>: 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. <u>Addenda</u>: 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. <u>Application of Payment</u>: 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. <u>Bid</u>: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.
- f. <u>Bidder</u>: The person, association of persons, firm, or corporation submitting a proposal for the Work.
- g. <u>Bidding Requirements</u>: The Advertisement for Bids, Instructions to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.
- h. <u>Change Order</u>: 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. <u>Claim</u>: 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. <u>Contract</u>: 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. <u>Contract Documents</u>: 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.

- 1. <u>Contract Price</u>: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Contract.
- m. <u>Contract Time</u>: The number of calendar days specified in the Contract for completion of the Work, together with any extensions authorized through change orders.
- n. <u>Contractor</u>: The person, association of persons, firm, or corporation entering into the duly awarded Contract.
- o. <u>Contracting Agency</u>: The State of Louisiana, Coastal Protection and Restoration Authority (CPRA).
- p. <u>Day</u>: 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. <u>Design Report</u>: A written report by the Engineer which provides the design methodology for the Work.
- r. <u>Effective Date of the Contract</u>: The date indicated in the Contract on which it becomes effective.
- s. <u>Engineer</u>: The State of Louisiana, Coastal Protection and Restoration Authority, or its designee.
- t. <u>Equipment</u>: 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. <u>Extension of Contract</u>: 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. <u>Federal Sponsor</u>: The federal agency which has been tasked, if applicable, to manage the implementation of the project.
- w. <u>Field Order</u>: 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. <u>Laboratory</u>: The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.

- y. <u>Laws and Regulations</u>; <u>Laws or Regulations</u>: Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- z. <u>Materials</u>: 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. <u>Milestone</u>: A principal event specified in the Contract Documents relating to an intermediated completion date or time prior to the Contract Times.
- bb. <u>Notice of Award</u>: 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. <u>Notice to Proceed</u>: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.
- dd. <u>Owner</u>: The Owner is the State of Louisiana (State) which acts through the Contracting Agency.
- ee. <u>Performance and Payment Bond</u>: 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. <u>Plans</u>: 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. <u>Project Site</u>: The location where the Work is to be performed as stated in the Contract Documents.
- hh. <u>Resident Project Representative</u>: An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.
- ii. <u>Right-of-way</u>: That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.
- jj. <u>Samples</u>: 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. <u>Shop Drawings</u>: 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.
- 11. <u>Specifications</u>: 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. <u>Structures</u>: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.
- oo. <u>Subcontractor</u>: 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. <u>Submittals</u>: 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. <u>Special Provisions</u>: That part of the Contract Documents which amends or supplements these General Provisions.
- ss. <u>Surety</u>: 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. <u>Temporary Structures</u>: 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. <u>Work Plan</u>: 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, latest 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:

- a. Examine the Bidding Documents including the Plans and Specifications and any Addenda or related data identified in the Bidding Documents;
- b. 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;
- c. Become familiar and satisfied with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of the Work;
- d. 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;

- e. 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
- f. 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 the Appendix. Prevailing Wage Determination Schedules are subject to modification by the United States Department of Labor. The Contractor is responsible for utilizing the most current Prevailing Wage Determination Schedule. These documents can be downloaded from the following link: <u>http://www.wdol.gov/dba.aspx#3</u>. 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 upon National Oceanic and Atmospheric Administration (NOAA) or similar data for the regional geographic area.

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

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 aids (I.E., warning signs, lighted marker buoys) and any repairs performed on them;

- h. Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);
- i. The amount of time lost to severe weather or personnel injury, etc;
- j. Notes regarding compliance with the Progress Schedule;
- k. Visitor log (Instructions for format will be furnished by the Field Engineer).

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

GP-11 HURRICANE AND SEVERE STORM PLAN

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

- a. What type of actions will be taken before storm strikes at the Project Site. The plan should specify what weather conditions or wave heights will require shutdown of the Work and removal of equipment, personnel, etc.
- b. Notes from continuous monitoring of NOAA marine weather broadcasts and other local commercial weather forecasts.
- c. Equipment list with details on their ability to handle adverse weather and wave conditions.
- d. List of safe harbors or ports and the distance and travel time required to transfer equipment from the Project Site.
- e. Hard copies of any written approvals or operations schedules associated with the use of the safe harbors or ports.
- f. Method of securing equipment at the safe harbors or ports.
- g. List of tug boats and work boats and their respective length, horsepower, etc. which will adequately transfer the equipment to safe harbor or port under adverse weather conditions.
- h. Methods which will be used to secure equipment left onsite during adverse weather conditions.
- i. Evacuation or immediate reaction plans to be taken by personnel for sudden storm occurrences.
- j. Operations procedures which will be used to secure critical dredging equipment such as spuds, swing wires, anchor wires, or tugs during adverse weather conditions.

k. Communications protocol with local law enforcement and fire and rescue agencies.

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

GP-12 HEALTH AND SAFETY PLAN AND INSPECTIONS

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

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

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

GP-13 PROGRESS MEETINGS AND REPORTS

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

GP-14 PRE-CONSTRUCTION CONFERENCE

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

GP-15 CONTRACT INTENT

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

GP-16 ENGINEER AND AUTHORITY OF ENGINEER

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

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

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

GP-17 CONFORMITY WITH PLANS AND SPECIFICATIONS

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

GP-18 CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS

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

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

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

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

GP-19 SUBCONTRACTS

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

GP-20 WORKERS, METHODS, AND EQUIPMENT

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

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

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

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

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

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

GP-21 ACCIDENT PREVENTION, INVESTIGATIONS, AND REPORTING

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

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

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

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

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

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

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

GP-24 LAND RIGHTS

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

GP-25 UTILITIES

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

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

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

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

GP-26 PERMITS

Federal and State permits that are required to perform the Work, such as the Department of the Army Permit, Coastal Use Permit, and LDEQ Clean Water Permit have been secured by the Owner. Permit conditions affecting the construction processes have been included in these Specifications. Copies of these permits will be provided to the Contractor at the preconstruction 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 nonconforming work shall also be removed prior to the Work being accepted. No materials shall be placed outside of the Project Site.

GP-28 OWNER INSPECTION

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

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

GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE

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

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

GP-30 CONSTRUCTION STAKES, LINES, AND GRADES

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

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

GP-31 CONTRACTOR'S RESPONSIBILITY FOR WORK

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

GP-32 ENVIRONMENTAL PROTECTION

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

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

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

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

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

GP-33 SANITARY PROVISION

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

GP-34 PAYMENT OF TAXES

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

GP-35 RADIO AND TELEPHONES

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

GP-36 NAVIGATION

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

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

These rules can be found on the Internet at:

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

GP-37 OBSTRUCTION TO NAVIGATION

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

GP-38 MARINE VESSELS AND MARINE ACTIVITIES

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

All 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, equipment, together with vouchers bearing written certification by the Contractor. In any case, the Engineer shall certify to the amount, including an allowance of fifteen percent (15%) for jobsite and home office overhead indirect expenses and profit due to the Contractor. Where such change involves a subcontractor, an allowance of ten 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 an 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 acceptance 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:
 - i. A written warranty by the manufacturer for each piece of installed project equipment or apparatus furnished under the Contract.
 - ii. Any necessary repair of replacement of the warranted equipment during the guarantee period at no cost to the Owner.
 - iii. 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:
 - i. Abuse or improper modification, maintenance, or operation by anyone other than the Contractor; or
 - ii. 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:
 - i. Observations by the Owner or Engineer; or
 - ii. Recommendations by the Engineer or payment by the Owner; or
 - iii. Use of the Work by the Owner; or
 - iv. Issuance of a notice of acceptance by the Owner pursuant to the provisions of GP-53, or failure to do so; or

- v. Any inspection, test, or approval by others; or
- vi. 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-58 of these General Provisions and in accordance with any other provision of this Contract, the Owner may withhold such amounts from any payment as may be necessary to protect himself from loss on account of:

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

Furthermore, nothing contained in this Section shall be deemed to limit the right of the Owner to withhold liquidated damages, as stated in the Instructions to Bidders and as permitted under Section SP-7 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 disabilities. Any act of discrimination committed by the Contractor, or failure to comply with these statutory obligations when applicable, shall be grounds for termination of the Contract.

GP-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 <u>www.epls.gov</u>.

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 LOCATION OF WORK

The Work site is located in Plaquemines Parish, LA and is only accessible by boat. The Project area is located along the east bank of Bayou Grand Liard, west of Venice, LA. The borrow area is accessible traveling down the Empire Waterway into the Gulf of Mexico and is located approximately 2 miles south of Scofield Island. See Sheet 3 of the Plans for additional details.

SP-2 WORK TO BE DONE

The Contractor shall provide all labor, materials, and equipment necessary to perform the Work. The Work shall be performed in accordance with these Specifications and in conformity to the lines, grades, and elevations shown on the Plans or as directed by the Engineer. Except for hydraulic and mechanical dredging operations, all work performed by the Contractor shall be limited to daylight hours only. Any exception shall be requested in writing by the Contractor to the Engineer. Prior written authorization from the Owner shall be required in order to deviate from this stipulation. Quantity calculations, layouts, shop drawings, and construction sequencing of the Work shall be provided in the Work Plan.

2.1 Bid Items

The Work associated with each Bid Item is listed in the Schedule of Bid Items shown on the Louisiana Uniform Public Work Bid Form. Additional details on these items are listed in the Technical Specifications. The following are major tasks of the Work associated with the Bid Items, all quantities have been estimated:

- 2.1.1 Mobilization and Demobilization of personnel and equipment at or to the Project Site;
- 2.1.2 Clearing and Grubbing of the Earthen Ridge alignment prior to construction of the Earthen Ridge;
- 2.1.3 Construction of the Marsh Creation Areas by hydraulic dredging and placement of 3,442,824 cubic yards of offshore borrow material;
- 2.1.4 Construction and maintenance of 29,275 linear feet of Earthen Containment Dikes;
- 2.1.5 Construction and maintenance of 16,780 linear feet of Earthen Ridge by mechanically dredging and placing material from Bayou Grand Liard (primary borrow) and the interior Marsh Creation Areas (secondary borrow);
- 2.1.6 Performance and administration of Construction Surveys;
- 2.1.7 Construction of eight Sheet Pile Closure Structures consisting of 45,626 square feet of steel sheet piling;
- 2.1.8 Placement of 22,569 cubic yards of Sand to assist in the construction of the Sheet Pile Closures Structures;

- 2.1.9 Installation of four Marsh Creation Area and seven Earthen Ridge Settlement Plates;
- 2.1.10 Access Dredging of material for equipment access and dredge discharge line access channel, depending on equipment needs;
- 2.1.11 Removal and disposal of existing orphaned and abandoned pipelines;

SP-3 BID AND CONTRACT DATES

Milestone	Location or Recipient	Date Due	Specification
Advertisement for Bids	Publications	As advertised	
Mandatory Pre-Bid Conference and Optional Jobsite Visit	Provided in Advertisement For Bids	As advertised	Advertisement For Bids
Questions on Bid Documents	cpra.bidding@la.gov	As Stated in Instruction To Bidders	-
Effective Date of the Contract	Contractor and Owner	Stated in Contract	Contract
Start of Contract Time	Contractor and Owner	As stated in Notice to Proceed	GP-7
List of Subcontractors	Submit to Engineer	Prior to awarding Subcontracts	GP-19
End of Contract Time	At Project Site	400 Calendar Days after Notice to Proceed	Instructions to Bidders and Contract

SP-4 DELIVERABLES

- 4.1 Prior to Pre-Construction Conference
 - 4.1.1 The Contractor shall submit the following documents to the Engineer two weeks prior to the Pre-Construction Conference specified in GP-14:
 - 4.1.1.1 Work Plan as specified in GP-8 and SP-6;
 - 4.1.1.2 Progress Schedule as specified in GP-9;
 - 4.1.1.3 Copy of typical Daily Progress Report as specified in GP-10.
 - 4.1.1.4 Hurricane and Severe Storm Plan as specified in GP-11;
 - 4.1.1.5 Health and Safety Plan as specified in GP-12.
 - 4.1.2 The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference specified in GP-14:
 - 4.1.2.1 Updates to all plans and schedules based on comments from the Engineer;
 - 4.1.2.2 Additional construction corridors that differ from what is shown on the Plans (subject to approval by the Engineer and permit modifications).

4.2 During Construction

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

- 4.2.1 The results of all surveys and calculations as specified in TS-2;
- 4.2.2 Progress Schedule as specified in GP-9;
- 4.2.3 Daily Progress Reports as specified in GP-10;
- 4.2.4 Copies of all inspection reports;
- 4.2.5 All Change Orders, Field Orders, Claims, Clarifications, and Amendments;
- 4.2.6 Results of any materials testing.
- 4.3 Administrative Records
 - 4.3.1 Notice of Intent to Dredge

At least 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.

U.S. Coast Guard Sector New Orleans Command Center 201 Hammond Hwy Metairie, LA 70005 504-846-5923

4.3.2 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 U.S. Coast Guard, Sector New Orleans Command Center, 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.

4.3.3 Dredging Aids

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.

4.3.4 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 and Engineer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special dispositions of the finds should be made. The Contractor shall report any observed unauthorized removal or destruction of such resources by any person to the Owner and Engineer so the appropriate State of Louisiana authorities can be notified. The Contractor shall not resume Work at the site in question until State authorities have rendered judgment concerning the artifacts of interest.

4.4 Post Construction

The Contractor shall contact the Engineer by phone or electronic mail, 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. The following documents shall also be submitted to the Engineer:

- 4.4.1 Copies of all delivery slips, which shall include the source of construction materials, date of delivery, exact quantity, and size of materials delivered with each shipment to the Project Site;
- 4.4.2 As-Built Drawings as specified in GP-55.
- 4.5 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:

Submittal	Location or Recipient	Date Due	Specification
Work Plan	Engineer	14 days prior to the Pre- Construction Conference	GP-8 and SP-6
Progress Schedule	Engineer	14 days prior to the Pre- Construction Conference	GP-9
Turbidity Control Plan	Engineer	14 days prior to the Pre- Construction Conference	TS-13
Typical Daily Progress Report	Engineer	14 days prior to the Pre- Construction Conference	GP-10
Hurricane and Severe Storm Plan	Engineer	14 days prior to the Pre- Construction Conference	GP-11
Health and Safety Plan	Engineer	14 days prior to the Pre- Construction Conference	GP-12
Work Plan and Schedule Updates	Engineer	Pre-Construction Conference	GP-9 and SP-6
Construction Corridors	Engineer	Pre-Construction Conference	SP-4.1.2.2
Pre-Construction Meeting	Contractor and Engineer	As determined by the Engineer after Notice to Proceed is issued	GP-14
Pre-Construction Survey	Engineer	21 Days Prior to Start of Excavation or Dredging	TS-2
Results of Surveys and Calculations	Engineer	During Construction	TS-2
Progress Schedule	Engineer	During Construction	GP-9
Daily Progress Reports	Resident Project Representative	Daily by 12pm (noon).	GP-10
Progress Meetings and Reports	At Project Site	Bi-Weekly or as determined at the Pre-Construction Meeting	GP-13
Copies of Inspection Reports	Engineer	During Construction	GP-38
Results of Materials Testing	Engineer	During Construction	SP-4
Notice of Intent to Dredge	Coast Guard	30 Days Prior to Commencement of Work	SP-4
Notice to Mariners	Engineer	7 Days Prior to Start of Dredging	SP-4
Delivery Slips	Engineer	5 Days Prior to the Anticipated Completion Date	SP-4
Written Notice of Completion of Work	Engineer	Upon Completion of Work	GP-33
As-Built Drawings	Engineer	Prior to Final Inspection as Scheduled by the Engineer	GP-55

Table 1 Summary of Submittals

SP-5 CONTACT INFORMATION

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

Coastal Protection and Restoration Authority (CPRA) 4500 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:

<u>CPRA Project Engineer</u> Tye Fitzgerald, P.E. P.O. Box 44027 Baton Rouge, LA 70804 Phone: (225) 342-4496 Fax: (225) 342-6801 E-mail: tye.fitzgerald@la.gov <u>CPRA Field Engineer</u> Barry Richard, P.E. 2045 Lakeshore Drive, Suite 309 New Orleans, LA 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-6 WORK PLAN SUPPLEMENTAL

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

- 6.1 Dredge Data Sheet as specified in SP-9;
- 6.2 Overview of Mobilization and Access Operations
- 6.3 Overview of Surveys
- 6.4 Layout and construction schedule for pipeline, timber piles, and debris removal;
- 6.5 Layout and construction schedule for Earthen Containment Dikes;
- 6.6 Layout and construction schedule for Earthen Ridge;
- 6.7 Layout and construction schedule for Sheet Pile Closure Structures, including Sand Fill;
- 6.8 Layout and schedule for dredge slurry pipeline;
- 6.9 Layout and schedule for dredged material placement and dewatering of Marsh Creation Areas;
- 6.10 Turbidity Control.

SP-7 FAILURE TO COMPLETE ON TIME

For each day the Work remains incomplete beyond the Contract Time, as specified in SP-3, or Extension of Contract Time, as specified in GP-44, the sum of two-thousand one hundred fifty dollars (\$2,150) 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-8 TRANSPORTATION

During construction layout, construction, and until final inspection and acceptance, the Contractor shall provide a safe and reasonable means of transportation to and from the dock, staging area, and construction areas for Owner and Engineer personnel. The schedule for dates, times, and pickup location for transportation shall be arranged by the Owner with the Contractor prior to Mobilization.

During Mobilization, construction layout, construction, Demobilization, and until Final Inspection and Acceptance, should the Contractor utilize a boat, quarters barge, or quarters and stay at the project area overnight, then the Contractor shall provide room and board for the Resident Project Representative.

The Contractor shall provide the Engineer, Resident Project Representative, Federal Sponsor, and other representatives from the State daily access to an air boat (4 passenger capacity) with an operator, as necessary, to properly inspect the Earthen Containment Dikes, Earthen Ridge, and the Marsh Creation Areas during the duration of construction activities.

The Contractor shall provide a boat with an operator for the exclusive use of the Engineer and/or Resident Project Representative around the project area for the duration of the project. The boat shall have the following features:

- 1. an enclosed cabin space
- 2. capable of maintaining 25 knots (29 mph)
- 3. six (6) passengers capacity
- 4. Coast Guard certified
- 5. operable marine radio
- 6. all safety equipment required by the Coast Guard for the size and type of vessel
- 7. draft of three feet (3') or less

The Contractor shall supply the fuel and any required maintenance for the airboat and boat for the duration of the project. All mechanical malfunctions of the boat shall be repaired or replaced within twelve (12) hours after malfunction or after the Contractor is directed by the Engineer.

In the event that the Contractor refuses, neglects, or delays compliance with these requirements, the specific facilities may be furnished and maintained by the Owner, and the cost thereof will be deducted from any amounts due, or to become due, to the Contractor.

The costs associated with providing all transportation stated above shall be included in the lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-9 DREDGE DATA SHEET

The Contractor shall complete the dredge data sheet in Appendix B 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 for informational purposes only. The data is pertinent to the evaluation of the proposed dredges and their capability to perform the Work. The bidder may only omit data or information that is considered to be proprietary.

SP-10 OFFICE OF OWNER

The Contractor shall provide an office for the Engineer and Resident Project Representative at the Project Site. This office shall be for the sole use of the Engineer or Resident Project Representative, suitably sized, and provided with electricity, lighting, heat, air conditioning, telephone service, and internet service. The office furnishings shall include a work table, drafting table, stool, and two chairs. Additionally, the office shall include a refrigerator and microwave. The office shall include locking doors for security purposes.

In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use another necessary office at the expense of the Contractor. The cost for providing and furnishing this office shall be included in the contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-11 LANDOWNER AND PIPELINE REQUIREMENTS

The Owner has obtained all temporary easements, servitudes, and right-of-way agreements required for construction of the project. The agreements executed with landowners for the Work at the site contain special requirements pertaining to access routes and insurance. A land rights memorandum is included in Appendix C. The Contractor shall give reasonable notice to landowner (Grantor) prior to initiation of access to the said lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project. The Contractor shall abide by the stipulations set forth by the respective landowners below:

Nugon Property Resources, LLC P.O. Box 17064 Baton Rouge, LA 70893-7064 Phone: (504) 893-2739

Louisiana Land & Exploration Company c/o ConocoPhillips Company 706 Bayou Black Dr. Houma, LA 70361 Phone: (985) 853-3009

Campbellton Corporation 880 Commerce Road West, Suite 104 New Orleans, LA 70123 Phone: (504) 828-1118 Plaquemines Parish Government 8056 Highway 23 Belle Chasse, LA 70037 Phone: (504) 297-55780

<u>State Water Bottoms</u> State Land Office, Division of Administration (SLO) Attn: Administrator Phone: (225) 342-4575

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

The Contractor shall notify all pipeline and utility companies at least seventy-two (72) hours in advance of any construction work. All pipelines located within one hundred fifty feet (150') of the Earthen Ridge and Containment Dike alignments, Marsh Creation Areas, Sheet Pile Closure Structures, Borrow Areas, and dredge discharge line access channel shall be probed and their locations marked with buoys or flagged stakes prior to any excavation or installation of the dredge slurry pipeline, for the duration of construction activities. The Contractor shall maintain all buoys and flagged stakes during construction. No excavation, anchoring, or spudding shall be permitted within fifty feet (50') of any pipeline in the dredge line access channel, Borrow Areas, Earthen Ridge, Earthen Containment Dike, or the Marsh Creation Areas. No hydraulic dredging shall be permitted within five hundred feet (500') of any existing pipeline in the Gulf of Mexico.

Dredge Slurry Pipeline Corridor:

Gulf South Pipeline Harold Sill (504) 415-1864

Texas Eastern Transmission Jerome Snyder (985) 876-6761 ext. 6851

Chevron Pipeline Keith Schaubhut (Paradis Division) (507) 415-0593 Columbia Gulf Transmission Darren Duhon (Integrity Management) (337) 266-4672

Southern Natural Gas Kurt Cheramie (Empire Division) (985) 233-6417

Hilcorp Energy Company George Moss (985) 397-1325

Louisiana State Gas Corporation Morris P. Hebert (985) 879-2731

Tennessee Gas Pipeline Pat Adams (985) 223-6139

SP-12 OYSTER LEASE RESTRICTIONS

All oyster leases within the fill area, borrow areas, and access routes have been acquired and extinguished. The dredge discharge line access channel has a buffer of oyster lease acquisitions which extend 150 feet on each side of the center line shown on Sheet 29 of the Plans. There are no oyster lease restrictions for performing the Work within these boundaries. The Contractor shall not impact oyster lease areas outside of the acquired lease areas. Decanted water shall not be released to the West of Bayou Grand Liard.

SP-13 THREATENED AND ENDANGERED SPECIES

The Endangered Species Assessment for this project identifies Sea Turtles, Smalltooth Sawfish, and nesting birds 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 and in the permit regarding construction activities:

All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep–water routes (e.g., marked channels) whenever possible.

If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish must cease. Operation of any moving mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

The cutterhead shall remain completely buried in the bottom material during dredging operations.

If pumping water through the cutterhead is necessary to dislodge material or to clean the pumps or cutterhead, etc., the pumping rate shall be reduced to the lowest rate possible until the cutterhead is at mid-depth, where the pumping rate can then be increased.

During dredging, the pumping rates shall be reduced to the slowest speed feasible while the cutterhead is descending to the channel bottom.

SP-14 CONSTRUCTION SEQUENCING

The Engineer's general recommendations for construction sequencing are listed in the subsections below. The Contractor may propose a different Construction Sequence in the Work Plan. Specific requirements regarding Construction Sequencing for the Marsh Creation Areas are included in TS-8.5 of these Specifications. The Engineer acknowledges that certain construction items listed below may occur simultaneously.

- 14.1 <u>Construction Sequencing</u>:
 - 14.1.1 Access Dredging
 - 14.1.2 Debris and Timber Pile Removal
 - 14.1.3 Pipeline Removal
 - 14.1.4 Dredge Slurry Pipeline Deployment
 - 14.1.5 Earthen Containment Dikes
 - 14.1.6 Sheet Pile Closure Structures (Earthen Containment)
 - 14.1.7 Earthen Ridge
 - 14.1.8 Sheet Pile Closure Structures (Earthen Ridge)
 - 14.1.9 Marsh Creation Areas

SP-15 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.

- 15.1 Minimum Scope and Limits of Insurance
 - 15.1.1 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.

15.1.2 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:

Initial Contract Amount	Minimum Insurance	
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	

15.1.3 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 thirdparty bodily injury and property damage liability for owned, hired and nonowned 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 automobiles and/or watercraft, and such vehicles are utilized in the execution of the contract, then hired and nonowned coverage is acceptable. If automobiles and/or watercraft are not utilized in the execution of the contract, then automobile and/or watercraft coverage is not required.

15.1.4 Excess Umbrella

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

15.1.5 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.

15.1.6 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.

- 15.2 Other Insurance Provisions
 - 15.2.1 The policies are to contain, or be endorsed to contain, the following provisions:
 - 15.2.1.1 Worker's Compensation and Employers Liability Coverage
 - 15.2.1.1.1 The insurer shall agree to waive all rights of subrogation against the Owner, its officers, agents, employees and volunteers for losses arising from Work performed by the Contractor for the Owner.
 - 15.2.1.2 General Liability Coverage
 - 15.2.1.2.1 The Owner, its officers, agents, employees and volunteers are to be added as additional insureds as respects liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor, premises owned, occupied or used by the Contractor. ISO Form CG 20 10 (current

form approved for use in Louisiana), or equivalent, is to be used.

- 15.2.1.2.2 The Contractor's insurance shall be primary as respects the Owner, its officers, agents, employees and volunteers. The coverage shall contain no special limitations on the scope of protection afforded to the Owner, its officers, officials, employees or volunteers. Any insurance or self-insurance maintained by the Owner shall be excess and non-contributory of the Contractor's insurance.
- 15.2.1.2.3 The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the policy limits.

15.2.1.3 All Coverages

- 15.2.1.3.1 Coverage shall not be canceled, suspended, or voided by either party (the Contractor or the insurer) or reduced in coverage or in limits except after 30 days written notice has been given to the Owner. Tenday written notice of cancellation is acceptable for nonpayment of premium. Notifications shall comply with the standard cancellation provisions in the Contractor's policy.
- 15.2.1.3.2 Neither the acceptance of the completed Work nor the payment thereof shall release the Contractor from the obligations of the insurance requirements or indemnification agreement.
- 15.2.1.3.3 The insurance companies issuing the policies shall have no recourse against the Owner for payment of premiums or for assessments under any form of the policies.
- 15.2.1.3.4 Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the Owner, its officers, agents, employees and volunteers.
- 15.2.2 Acceptability of Insurers

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

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

15.2.3 Verification of Coverage

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

State of Louisiana Coastal Protection and Restoration Authority 450 Laurel Street Baton Rouge, LA, 70801 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.

15.2.4 Subcontractors

Contractor shall include all subcontractors as insureds under its policies <u>OR</u> 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.

15.2.5 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 or claim that may arise from the performance of this contract.

15.2.6 Indemnification/Hold Harmless Agreement

Contractor agrees to protect, defend, indemnify, save, and hold harmless, the State of Louisiana, all State Departments, Agencies, Boards and Commissions, its officers, agents, servants, employees and volunteers, from and against any and all claims, damages, expenses and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur, or in any way grow out of, any act or omission of Contractor, its agents, servants and employees, or any and all costs, expenses and/or attorney fees incurred by Contractor as a result of any claims, demands, suits or causes of action, except those claims, demands, suits or causes of action arising out of the negligence of the State of Louisiana, all State Departments, Agencies, Boards, Commissions, its officers, agents, servants, employees and volunteers.

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

15.3 Performance and Payment Bond

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

The Owner shall record within thirty (30) days the Contract Between Owner and Contractor and Performance and Payment Bond with the Clerk of Court in the Parish in which the Work is to be performed.

END OF PART II - SPECIAL PROVISIONS

PART III TECHNICAL SPECIFICATIONS

TS-1 MOBILIZATION AND DEMOBILIZATON

1.1 Description

The Contractor shall provide all labor and equipment necessary to move personnel, equipment, construction materials (including dredge pipeline), and incidentals to and from the Project Site. This shall include but is not limited to establishing offices, buildings, and other facilities necessary for the Work. As part of this Bid Item, the Contractor shall obtain bonds, required insurance, and include any other preconstruction expenses necessary to perform the Work. This section shall exclude the cost of construction materials listed in the Schedule of Bid Items.

1.2 Arbitrary Mobilization and Demobilization by Contractor

The Owner shall pay for only one Mobilization and Demobilization effort. Should the Contractor demobilize prior to completing the Work, subsequent remobilization shall be performed at no cost to the Owner.

1.3 Ratio of Mobilization and Demobilization Effort

Ten percent (10%) of the lump sum price will be paid to the Contractor upon acceptance of the Work Plan, twenty percent (20%) upon the start of Earthen Ridge construction, and thirty percent (30%) upon completion of dredge pipeline. The remaining forty percent (40%) will be paid to the Contractor upon completion of Demobilization.

1.4 Justification of Mobilization and Demobilization Costs

In the event that the Engineer considers the amount in this item, which represents Mobilization and Demobilization respectively, 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 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

Payment for Mobilization and Demobilization shall be paid for at the contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization". Payment shall constitute full compensation for moving personnel, equipment, supplies, and incidentals to and from the job site and establishing offices, buildings, and other facilities for the work, obtaining bonds, insurance, permit application fees, and any other associated expenses.

TS-2 CONSTRUCTION SURVEYS

2.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to perform Pre-Construction, Process, and As-Built Surveys at the locations shown on the Plans and as outlined in these Specifications. **Pre-Construction Surveys** are those required to be conducted prior to the commencement of Work. A Pre-Construction survey shall be performed to serve as a baseline for fill and dredge quantities. **Process Surveys** are conducted during construction for quality control, partial payment, and acceptance. **As-Built Surveys** are post construction surveys to be performed after the completion of all Work. Accepted Process Surveys, where applicable, may serve as As-Built Surveys at the discretion of the Engineer.

Secondary monuments CRMSBA-SM-14, N367, C179, and J370 are part of CPRA's Secondary GPS Network and shall be used for horizontal and vertical control. Data sheets for these control points are included in Appendix F. All surveys shall be performed by personnel who are approved by the Engineer and under the direct supervision of a professional land surveyor or engineer licensed in the State of Louisiana. All survey drawings shall be signed and sealed by the Louisiana licensed professional surveyor, or professional engineer, under which supervision of the surveys were conducted. Survey data shall reference the North American Datum of 1983 (NAD 83), Louisiana South Zone, U.S. Survey Foot for horizontal control, and the North American Vertical Datum of 1988 (NAVD 88) Geoid 03 (2004.65), U.S. Survey Foot for vertical control. All survey point files shall be submitted, in x,y,z .csv format, to the Engineer and Resident Project Representative .

Surveys that were administered and utilized during engineering and design are shown on the Plans and in Appendix G. The following sections include provisions for resurveying some of these lines for verification purposes, and performing additional surveys to better facilitate acceptance and payment.

2.2 Accuracy and Methodology

All surveys shall be conducted using the 5 cm accuracy standard. The Contractor shall use Digital Leveling Instruments, Real Time Kinematic (RTK) and Global Positioning System (GPS) receivers, and software necessary to achieve the required survey accuracy. A six inch (6") diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking past the bottom.

2.3 Pre-Construction Surveys

The following subsections include details on the Pre-Construction Surveys to be performed by the Contractor after the Pre-Construction Conference and prior to construction. This survey shall be used to verify the alignment of the various project features and provide updated fill volumes and dredge quantities. Drawings of the plan views and cross sections shall be developed from these surveys, by the Contractor, and submitted to the Engineer for review. Elevations, coordinates, lines, and grades shall be shown on the drawings. The Contractor shall also calculate the projected quantities for the Earthen Containment Dikes, Earthen Ridge, Sand Fill, Steel Sheet Piling, Marsh Creation Areas, Offshore Borrow Area, and Construction
and Dredge Discharge Line Access Channels. The projected quantities shall be calculated using a method that is approved by the Engineer. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum. Correction methods must be submitted in the Contractor's Work Plan for review and approval by the Owner and Engineer.

2.3.1 Temporary Bench Marks (TBMs)

The Contractor shall install TBMs as necessary to perform the survey. Horizontal and vertical coordinates shall be determined for all TBMs installed. The Contractor shall maintain the TBMs for the duration of the Work. In the event that a single TBM is disturbed and/or destroyed, the TBM shall be reinstalled by approved personnel at the expense of the Contractor. If multiple TBMs are destroyed, the Engineer may require the TBMs to be reinstalled by a Professional Surveyor licensed in the State of Louisiana, at the expense of the Contractor.

2.3.2 Baselines

The baseline shall be surveyed and staked at all points of inflection and transect intersections as shown on the Plans. The baseline shall be shown on the plan view drawings. The baseline that was established and utilized during engineering and design is shown on Sheet 28 on the Plans.

2.3.3 Earthen Containment Dikes

For construction layout, the Earthen Containment Dike footprint (marsh side toe and crest, outside crest and toe shown on Plan Sheet 14) shall be surveyed and staked out at each point of inflection shown on Sheets 6 through 8 of the Plans. As a baseline for the Process Surveys, cross sections shall also be surveyed every 250 feet perpendicular to the Earthen Containment Dike centerline. Each cross section shall include the four points mentioned above and extend 25 feet beyond the toe with horizontal and vertical positions recorded at each point. Details of this survey shall be included in the Work Plan.

2.3.4 Earthen Ridge

For construction layout, the Earthen Ridge footprint (marsh side toe and crest, outside crest and toe shown on Plan Sheet 15) shall be surveyed and staked out at each point of inflection shown on Sheets 6 through 8 of the Plans. As a baseline for the Process Surveys, cross sections shall also be surveyed every 250 feet perpendicular to the Earthen Ridge centerline. Each cross section shall include the four points mentioned above and extend 25 feet beyond the toe with horizontal and vertical positions recorded at each point. Details of this survey shall be included in the Work Plan.

2.3.5 Sheet Pile Closure Structures

The centerline of the Sheet Pile Closure Structure alignment shall be surveyed and staked at 20 foot intervals and all interior angles. Crosssectional surveys, perpendicular to the centerline, shall then be performed at each staked location. These cross-sectional surveys shall extend 150 feet on each side of the centerline. Elevations shall be surveyed and recorded every 15 feet and at sudden changes in topography greater than 1 foot along these survey lines. Details of this survey shall be included in the Work Plan.

2.3.6 Marsh Creation Areas

The survey transects shown on Sheets 6 through 8 and Sheet 28 of the Plans shall be surveyed to verify design Marsh Creation Area conditions. Elevations shall be surveyed and recorded every 25 feet, and at major changes in topography greater than one foot, along these survey transects and shall extend to the centerline of the Earthen Ridge and Containment Dike alignments. So that interior Earthen Ridge and Containment Dike borrow areas are captured in this survey, the Contractor shall not begin the Pre-Construction Marsh Creation Area survey until construction of the Earthen Ridge and Containment Dike for the respective Marsh Creation Area has been accepted by the Engineer. Details of this survey shall be included in the Work Plan.

2.3.7 Offshore Borrow Areas

The Offshore Borrow Area Pre-Construction Survey shall consist of transects taken in a grid configuration spacing no more than 100 feet apart, as shown on Sheets 26 of the Plans. These transects shall extend 100 feet beyond the limit of pay with shots recorded every 20 feet. As per TS-8.4 should the Contractor request dredging material from the West Offshore Borrow Area, it shall be surveyed (see Sheet 27 of the Plans) prior to dredging in that Borrow Area.

Bar check results, the survey scroll or BIN file, and verification of real-time tide corrections shall also be furnished to the Engineer. The Pre-Construction Offshore Borrow Area survey must be submitted to and approved by the Engineer prior to Mobilization of the dredge pipe and hydraulic dredge.

2.3.8 Settlement Plates

The elevation of the top of pipe and base of the settlement plate shall be recorded and reported to the nearest tenth of a foot (0.1') NAVD 88 upon installation.

2.3.9 Magnetometer Survey

In an effort to verify locations and depths of pipelines and other underwater obstructions, a design magnetometer survey has been performed in preparation for this project. The design magnetometer survey encompassed the Offshore Borrow Areas, Marsh Creation Area access routes, Earthen Ridge, and Marsh Creation Areas (see Appendix G).

The Contractor shall perform Pre-Construction Magnetometer Surveys in the Dredge Discharge Line Access Channel, Offshore Borrow Areas, Earthen Ridge Borrow Areas, Earthen Containment Dike Borrow Areas, Marsh Creation Areas, and at all Sheet Pile Closure Structure locations. Methodology, line spacing, and other technical details of this survey shall be included in the Work Plan. The Borrow Area and all proposed access corridor Pre-Construction Magnetometer Surveys, including actual track lines, shall be provided to the Engineer prior to any excavation, dredging, or installation of dredge pipe. Once the remaining Pre-Construction Magnetometer Surveys are complete, the Contractor shall submit them to the Engineer, including actual track lines. This does not relieve the Contractor of responsibilities set forth in GP-25.

2.3.10 Pipeline Locations

All pipelines located within 150 feet of the Earthen Ridge and Earthen Ridge Borrow Areas, Containment Dikes and Containment Dike Borrow Areas, Marsh Creation Areas, Offshore Borrow Areas, and Dredge Discharge Line Access Channel shall be probed for depth and their locations marked prior to equipment access, excavation dredging, and installation of the dredge pipeline and shall be maintained for the duration of construction activities. The Contractor shall submit the probed depth to the Engineer upon completion of this task.

2.3.11 Construction and Dredge Discharge Line Access Channels

A bathymetric survey of the proposed Construction and Dredge Discharge Line Access Channels was performed in preparation for this project in an effort to determine the dredging that may be required to access the Project Area and provide flotation for equipment. A centerline profile shall be surveyed and recorded at 500 foot intervals in accordance to the layout and coordinates shown on Plan Sheet 29. Cross sections of the Construction and Dredge Discharge Line Access Channel shall also be surveyed at 1000 foot intervals. These cross sections shall extend 250 feet on each side of the centerline profile. In addition, Bayou Transects 6 through 45 shall be surveyed as shown on Sheet 28 of the Plans. The elevation and coordinates at each cross section/transect shall be recorded in 20 foot intervals. The Construction and Dredge Discharge Line Access Pre-Construction Survey shall be submitted and approved by the Engineer prior to Mobilization of the mechanical dredge and dredge pipe. Details of the survey shall be included in the Work Plan.

2.3.12 Grade Stakes

Grade Stakes shall be installed and surveyed by the Contractor at locations necessary to monitor fill elevations during construction as required. Horizontal and vertical coordinates shall be determined for all Grade Stakes installed. The top elevation of each Grade Stake shall be obtained to determine the proper placement of the gauge sign. The Grade Stakes shall be assembled and installed per the guidelines shown on Sheet 24 on the Plans. Each Marsh Creation Area shall include a minimum quantity of Grade Stakes

as outlined below:

Marsh Creation Area A:	15 Grade Stakes
Marsh Creation Area B:	12 Grade Stakes
Marsh Creation Area C:	12 Grade Stakes
Marsh Creation Area D:	8 Grade Stakes

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

2.4 Process Surveys

The surveys associated with the subsections below shall serve as basis for partial payment and/or acceptance for several Bid Items listed in the Louisiana Uniform Public Works Bid Form included in these Specifications. Drawings of the plan views, cross sections, and calculations of quantities of materials shall be developed from these surveys, by the Contractor, and submitted to the Engineer for review, acceptance, and/or partial payment. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum.

2.4.1 Earthen Containment Dikes

During Earthen Containment Dike construction, and until final acceptance of the respective Marsh Creation Area, the Contractor shall resurvey the cross sections taken in TS-2.3.3. These surveys shall be performed monthly and as stated in TS-6.7 for acceptance. These Process Survey cross sections shall extend 25 feet beyond the limits of the Earthen Containment Dike borrow areas with horizontal and vertical positions recorded in 25 foot intervals. Additionally a monthly centerline profile shall be surveyed and recorded every 25 feet. The Engineer may require additional Earthen Containment Dike cross sections (locations chosen by the Engineer) to be surveyed during Project Construction. Details of these surveys shall be included in the Work Plan.

2.4.2 Earthen Ridge

During Earthen Ridge construction, and until final acceptance of the respective Marsh Creation Area, the Contractor shall resurvey the cross sections taken in TS-2.3.4. These surveys shall be performed monthly and as stated in TS-7.6 for acceptance. These Process Survey cross sections shall extend 25 feet beyond the limit of the Earthen Ridge borrow areas with horizontal and vertical positions recorded in 25 foot intervals. Additionally a monthly centerline profile shall be surveyed and recorded every 25 feet. The Engineer may require additional Earthen Ridge cross sections (locations chosen by the Engineer) to be surveyed during Project Construction. Details of this survey shall be included in the Work Plan.

2.4.3 Marsh Creation Areas

The Process Surveys associated with the Marsh Creation Areas shall be composed of Grade Stake surveys and resurveying the transects shown on Sheets 6 through 8 and 28 of the Plans. First lift Process Surveys for each Marsh Creation Area shall be solely based on Grade Stake data. Second lift Process Surveys for each Marsh Creation Area shall be composed of the resurveyed Pre-Construction transects stated in TS-2.3.6, with elevations recorded every 50 feet along the transect lines. These second lift surveys will not begin until the daily Grade Stake data indicates that the second construction lift has reached the target elevation, and are accepted by the Engineer. Details of this survey shall be submitted in the Work Plan.

Marsh Creation Area Process Surveys shall also include x,y,z data representing the intersection of the dredged fill material with the Earthen Ridge and Containment Dike.

2.4.4 Offshore Borrow Area

The Contractor shall delineate the dredged area to be surveyed for pay; the dredged section of the borrow area shall be surveyed to determine pay volumes for hydraulic placement of marsh fill material. The bathymetric survey shall be at a grid spacing of no more than 100 feet (see Plan Sheets 26 and 27). The survey lines shall extend a minimum of 100 feet from the edge of the area to be surveyed. Bar check results, the survey scroll or BIN file, and verification of real-time tide corrections shall also be furnished to the Engineer.

Process surveys to be used for payment shall include x,y,z data representing the area of borrowed material and does not have to cover the entire borrow area. A bathymetric plot and an electronic copy of the bathymetric survey shall be furnished to the Engineer

2.4.5 Settlement Plates

The mud line and top of pipe elevations of the Earthen Ridge and/or Marsh Creation Area Settlement Plates shall be recorded and reported to the nearest tenth of a foot (0.1') NAVD 88 weekly during Construction of the Earthen Ridge and/or Marsh Creation Areas. This information shall be provided to the Engineer in the Daily Reports.

2.4.6 Sheet Pile Closure Structures

Sheet Pile Closure Process Surveys shall be performed a minimum of three (3) times during construction of each Sheet Pile Closure Structure. The first shall be performed once the Sand Fill has been placed; the second after the sheet pile has been driven; and the third once the Earthen Ridge fill has encapsulated the sheet piling. These surveys shall follow the surveys described in TS-2.3.5. Sand Fill placement, with calculated volumes, must be submitted and accepted by the Engineer prior to the installation of the steel sheet piling for the respective Sheet Pile Closure Structure. The second survey must be submitted and approved by the Engineer prior to placement of the Earthen Ridge fill material. The Engineer shall evaluate the process surveys to determine if the fill is to be accepted or modified as per grades shown on the Plan Sheets 16 through 23 and specified in TS-9 and TS-10.

The Contractor shall perform additional survey transects along the Sheet Pile Closure Structure feature as deemed necessary by the Engineer.

2.4.7 Grade Stakes

Grade Stake elevations shall be recorded daily, and submitted in the weekly reports, based on a visual inspection of the mud line once hydraulic dredging has begun in that respective cell. Daily readings shall continue through final acceptance of the respective Marsh Creation Area. The Contractor shall resurvey the Grade Stakes monthly to maintain the accuracy of the visual inspections.

2.4.8 Construction and Dredge Discharge Line Access Channels

Once the Contractor deems all access channels are acceptable for construction, or prior to hydraulic dredging, the Access Channels shall be resurveyed, in accordance with TS-2.3.11. This shall be done to ensure that the channels are constructed to the lines, grades, and elevations shown on Plan Sheet 9 should they be necessary for the Contractor.

2.5 As-Built Surveys

The As-Built Surveys of the Earthen Ridge and Containment Dikes, Marsh Creation Areas, Sheet Pile Closure Structures, Offshore Borrow Area, Dredge Discharge Line Access Channel, and Settlement Plates shall be surveyed by the Contractor after construction is complete and/or consist of the accepted Process Surveys. Final payment will not be recommended until the As-Built Survey deliverables and Work have been accepted by the Engineer. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum.

2.5.1 Earthen Containment Dikes

The Earthen Containment Dike As-Built Survey shall be composed of the last monthly cross-sections and accepted centerline profile Process Survey for the respective Marsh Creation Area collected per TS-2.4.1.

2.5.2 Earthen Ridge

The Earthen Ridge As-Built Survey shall incorporate the accepted Process Surveys for all of the Earthen Ridge alignment as outlined in TS-4.2. Once all Marsh Creation Areas have been accepted for final payment, the Contractor shall re-survey the entire Earthen Ridge as outlined in TS-2.4.2. This additional survey shall not negate the previously accepted surveys. The Contractor shall develop drawings which include the cross sections, plan views, elevations, and lengths from the Process Surveys. The dates, elevations, and lengths for each Process Survey shall be superimposed onto the corresponding fill areas on the plan views. The As-Built length for the Earthen Ridge shall be stated linear feet.

2.5.3 Marsh Creation Areas

The Marsh Creation Area As-Built Surveys shall incorporate the accepted Process Surveys for all Marsh Creation Areas outlined in TS-2.4.3. The Contractor shall develop drawings which include the cross sections, plan views, elevations, and volumes from the Process Surveys. The dates, elevations, and in-place volumes for each Process Survey shall be superimposed onto the corresponding Marsh Creation Area on the plan views. The As-Built quantities of in-place Marsh Creation material shall be calculated in cubic yards.

2.5.4 Offshore Borrow Area

The Offshore Borrow Area As-Built Survey shall incorporate the accepted Process Surveys of the Offshore Borrow Areas. The Contractor shall also resurvey transects P1 through P36 (see Plan Sheet 26) of the borrow area as part of this As-Built Survey submittal. Should the secondary Offshore Borrow Area be dredged, the Contractor shall also resurvey transects P77 through P109 (see Plan Sheet 27) of the borrow area as part of this As-Built Survey submittal. The Contractor shall develop drawings which include the cross sections, plan views, elevations, and volumes from the accepted Process Surveys. Bathymetric surveys not tide corrected in real-time will not be accepted. The dates, elevations, and volumes for each Process Survey shall be superimposed onto the corresponding Borrow Area on the plan views. The As-Built quantities of offshore material borrowed shall be stated in cubic yards.

2.5.5 Settlement Plates

The Settlement Plate As-Built Survey shall incorporate the data from the Process Surveys.

2.5.6 Sheet Pile Closure Structure

The Sheet Pile Closure Structure As-Built Surveys shall incorporate the accepted Process Surveys for all Sheet Pile Closure Structures outlined in TS-2.4.6. The Contractor shall develop drawings which include the cross sections, plan views, elevations, and quantities from the process surveys. The dates, elevations, and quantities for each process survey shall be superimposed onto the corresponding Sheet Pile Closure Structure on the plan views. The As-Built quantities of Sand Fill shall be stated in cubic yards. The As-Built quantities of Sheet Piling shall be stated in square feet.

2.5.7 Construction and Dredge Discharge Line Access Channels

The Contractor shall survey the dredged (if performed) portion of the Access Channels to verify that the required backfilling has been achieved. The Construction and Dredge Discharge Line Access Channels shall be resurveyed in accordance with TS-2.3.11.

2.5.8 Post Construction Marsh Creation Area Surveys

The Contractor shall perform Post Construction Surveys, on all Marsh Creation Areas, at 15 and 30 days after the final lift has been accepted. Transect elevations shall be surveyed and recorded every fifty feet (50') along every other designated transect line, starting at Sta. 20+00, that bisects the Bayou Grand Liard Baseline on Plan Sheet 28. Settlement Plates in the Marsh Creation Areas shall be included in this survey. The results of this survey are for informational purposes only and shall not affect final acceptance and payment of the Marsh Creation Area.

2.6 Deliverables

The Pre-Construction, Process, As-Built, and Post Construction Surveys shall be stamped by a professional land surveyor or engineer licensed in the State of Louisiana. The Contractor shall provide the details for the survey layout in the Work Plan.

The Pre-Construction survey drawings and projected material quantities shall be submitted to the Engineer for review prior to excavation. Three copies shall be provided on 11"x17" paper and one digital copy provided in AutoCAD.

The Process Survey drawings, linear footage of Earthen Containment Dikes and Earthen Ridge, Marsh Creation Area in-place material quantities, Offshore Borrow Area dredged material quantities, and supporting calculations shall be submitted to the Engineer for review, in order to receive acceptance and partial payment. Three copies shall be provided on 11"x17" paper and one digital copy provided in AutoCAD. Process Survey point files shall be submitted to the Engineer, in digital format, within two day of being recorded.

The As-Built Survey, linear footage of Earthen Containment Dike and Earthen Ridge, Marsh Creation Area in-place material quantities, Offshore Borrow Area dredged material quantities, and supporting calculations shall be submitted to the Engineer by the date provided in SP-3 in order to receive acceptance and final payment. Three copies shall be provided on 11"x17" paper and two digital copies provided in AutoCAD. The survey shall incorporate all field changes, change orders, quantities of materials placed and offshore dredged quantities. All revisions shall be shown in red and be easily distinguishable from the original design.

Point files of the Pre-Construction, Process, and As-Built Surveys shall be included in the digital copies, organized by transect and feature, and shall contain the following information:

- 2.6.1 Point Number;
- 2.6.2 Northing (NAD 83 U.S. ft.);
- 2.6.3 Easting (NAD 83 U.S. ft.);
- 2.6.4 Geoid 03 (2004.65);

- 2.6.5 Elevation of top of soil (NAVD 88 ft.);
- 2.6.6 Elevation of the water level (if applicable) (NAVD 88 ft.);
- 2.6.7 Description.
- 2.7 Measurement and Payment

Payment for Surveys shall be made at contract lump sum price for Bid Item No. 6, "Construction Surveys". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment to perform the Pre-Construction, Process, and As-Built Surveys specified herein.

The Contractor may request partial payments for Construction Surveys. Thirty percent (30%) of the lump sum cost will be paid following acceptance of the Pre-Construction Surveys, excluding the Marsh Creation Pre-Construction Survey. Thirty percent (30%) of the lump sum cost will be paid following acceptance of the Earthen Ridge. Forty percent (40%) of the lump sum cost will be upon submission of the complete set of As-Built Surveys.

TS-3 PIPELINE REMOVAL

3.1. Scope

Several small abandoned pipelines are known to exist within the Project Area and portions shall be removed to allow for construction of the Earthen Ridge and Earthen Containment Dikes. The Contractor shall furnish all materials, labor, and equipment necessary to flush and capture all contents, cut, remove, cap, and properly dispose approximately 3,400 feet of pipeline as shown on the Plans and stated in these Specifications. The pipelines shall be removed prior to construction of the Earthen Ridge and Containment Dikes.

3.2. Method

The Contractor shall locate and remove pipelines associated with the following Coastal Use Permits (the approximate locations of these pipelines are shown on Sheet 7 of the Plans):

- P19860021 (Approximately 1,000 feet of 4" Pipeline)
- P19841123 (Approximately 1,501 feet of 2" Pipeline)
- P19850368 (Approximately 888 feet of 4" Pipeline)

The Contractor shall be responsible for removing, testing, transporting, and disposing all hazardous and nonhazardous waste, equipment, and materials in a manner that complies with all federal, state, and local regulations. The project area shall be kept free from accumulation of waste materials and debris at all times. All pipelines being removed shall be surveyed for naturally occurring radioactive material (NORM) and asbestos. If any pipe is wrapped in asbestos, an asbestos abatement specific license is required to strip and remove the asbestos off the pipe in the areas necessary for pipeline removal. Complete stripping is not required (unless necessary for disposal). If any materials are determined to be hazardous, the Contractor shall ensure that all pipes are removed, wrapped, and properly disposed according to the Department of Environmental Quality standards is the responsibility of the Contractor. No explosives shall be allowed. Caution and care shall be taken to secure safe transportation to a disposal site. The Contractor shall submit a proposed work detail and access routes for equipment used for Pipeline Removal in the Work Plan for approval.

3.3. Access

All equipment for Pipeline Removal shall access the project area via state water bottoms and Bayou Grand Liard as shown on Plan Sheet 3. Access to the internal areas shall be through open waters or approved by the Engineer.

3.4. Acceptance

The Engineer will verify that the pipelines have been removed and disposed as specified in TS-3.2. The Contractor shall measure and record the NORM levels, presence/absence of asbestos, total length of pipeline removed daily, and submit all formal documentation from the disposal drop off site.

3.5. Measurement and Payment

Payment for Pipeline Removal shall be made at the contract lump sum price for Bid Item No. 11 "Pipeline Removal". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary for proper removal, and disposal, of the Work specified herein.

TS-4 CLEARING AND GRUBBING

4.1 Scope

This work shall consist of clearing, grubbing and disposal of trees, snags, logs, brush, stumps, shrubs, rubbish, and timber piles from the Earthen Ridge alignment prior to performing earthwork in that area. The Contractor shall submit a proposed work detail and access routes for equipment used to facilitate Clearing and Grubbing in the Work Plan for approval.

4.2 Timber Pile Removal

The Contractor shall be responsible for the removal and disposal of the timber piles listed in Table 2. The Contractor shall remove all piles to the extent that is does not interfere with construction. Once removed, all piles shall be disposed offsite in accordance will all state regulations. The Contractor is responsible for any and all costs associated with the disposal of removed materials.

Table 2 Timber Pile Removal Locations

Point	Northing	Easting	Top of Pile Elevation (ft, NAVD 88)
1	297808.0017'	3872313.7280'	0.7'
2	297804.0527'	3872315.9280'	0.6'
3	297799.5967'	3872318.4650'	0.2'
4	297797.4900'	3872321.4120'	-1.1'
5	297795.6984'	3872321.5790'	0.3'
6	297795.3482'	3872320.2600'	-0.2'
7	297791.1392'	3872322.9450'	0.6'
8	297787.4979'	3872325.4910'	0.5'
9	297781.5946'	3872328.0320'	0.7'
10	297778.5760'	3872330.3300'	-0.9'
11	297777.7726'	3872330.0700'	0.2'
12	297774.1558'	3872333.0460'	0.4'
13	296455.7851'	3873708.6580'	2.2'
14	296428.1944'	3873709.1870'	2.7'
15	294673.8619'	3873977.6790'	2.9'
16	294670.2775'	3873980.8220'	3.0'
17	294271.8667'	3874322.4860'	5.4'
18	294269.1152'	3874318.9090'	5.4'
19	294259.2507'	3874294.5770'	5.6'
20	294257.4281'	3874291.1680'	5.6'
21	294175.0781'	3874265.2220'	8.2'
22	294171.3956'	3874269.8790'	8.0'
23	291660.0040'	3875087.3680'	2.7'
24	291654.9249'	3875084.9520'	3.0'
25	291650.2955'	3875084.1670'	3.0'
26	291644.9235'	3875084.8200'	2.8'
27	291643.4331'	3875089.2830'	2.6'
28	291642.8671'	3875090.2680'	2.0'
29	291642.7465'	3875090.5080'	2.3'
30	291640.2092'	3875094.6940'	0.3'
31	281959.5897'	3875331.1090'	1.3'
32	281953.7383'	3875325.9000'	2.1'
33	281952.9159'	3875333.6740'	1.8'
34	281948.6855'	3875339.4450'	0.4'
35	281947.4039'	3875330.5070'	1.3'
36	281944.7026'	3875337.2270'	1.7'
37	281939.6902'	3875333.3350'	1.6'

4.3 Protection of Existing Vegetation

Trees and other vegetation outside the work limits shown on the Plans shall be protected from damage throughout the duration of the construction period. Any damages resulting from the Contractor's operations or neglect shall be repaired or replaced by the Contractor.

Earthen fill, stockpiling of materials, excavation equipment parking, tracking, and excessive foot and vehicular traffic shall not be allowed outside the limits of work. Vegetation damaged by any of these or similar actions shall be replaced with viable vegetation of the same species, similar condition, and like size unless otherwise approved by the Engineer.

All roots one inch or greater in diameter which are cut, broken or otherwise severed during construction operations shall have the end smoothly cut perpendicular to the root level or below existing grade. Roots exposed during excavation or other operations shall be covered with moist earth and/or backfilled as soon as possible to prevent the roots from drying out.

4.4 Clearing and Grubbing

All trees, snags, logs, brush, stumps, shrubs, rubbish and similar materials shall be cleared from within the limits of the fill footprint of the Earthen Ridge and extend five feet beyond those limits of fill. Unless otherwise specified, all stumps, roots and root clusters having a diameter of one inch or larger shall be grubbed out.

4.5 Disposal

All vegetative materials cleared and grubbed shall be removed and placed in the Marsh Creation Area by the contractor such that it does not interfere or delay the construction of the Earthen Ridge and Containment Dikes. The Contractor shall show their expected disposal locations in the Work Plan for review and approval. Rubbish, debris, and trash: such as plastics, large boards or timbers shall be gathered and disposed offsite in an approved location. **Burning is prohibited for this project.**

4.6 Measurement and Payment

Payment for all Clearing and Grubbing activities shall be made at contract lump sum price for Bid Item No. 2, "Clearing and Grubbing". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment to perform all tasks associated with Clearing and Grubbing.

TS-5 DREDGING FOR CONSTRUCTION AND DREDGE DISCHARGE LINE ACCESS CHANNEL

5.1 Scope

Access Dredging shall consist of removing and satisfactorily placing all material required to Mobilize/Demobilize equipment to/from the Project Area. Depending on draft requirements of the Contractor's equipment, access channels may not be

required at all locations shown on the Plans. Access channels are permitted to a maximum elevation of -8.0' NAVD 88 and a maximum bottom width of 60.0'. **It is not mandatory that the contractor dredge to this depth and width.** The limits of this work shall conform to the lines and grades shown on Sheets 9 and 29 of the Plans and in the permit. Tolerances outside these requirements must be approved by the Engineer and may be subject to permit modification. The access channels shall be maintained in a useable configuration for the construction duration of the project.

5.2 Method

The Contractor shall mechanically dredge the Construction and Dredge Discharge Line Access Channel, as needed, to provide the necessary floatation for construction equipment. The Contractor shall use a mechanical dredge to perform this work in accordance to the lines, grades, and elevations shown on the Plans. The Contractor shall submit to the Engineer the method and equipment intended to be used to complete dredging of access channels in the Work Plan.

5.3 Disposal

Dredged material shall be deposited in the temporary disposal areas as shown on Plan Sheet 9 or as directed by the Engineer. This material must conform to the elevations, grades, and lines shown on the Plans. Upon completion of the Project, the temporary disposal area shall be reworked to within ± 0.5 ° of the original grade by re-depositing material back into the excavated access channel, to the maximum extent practicable. Any material that is deposited elsewhere than indicated on the plans, unless authorized by the Engineer, shall be removed and deposited in approved areas at the Contractor's expense. Additionally, the Contractor shall be responsible for restoring unauthorized disposal areas to pre-project conditions at their own expense.

5.4 Construction and Maintenance

Side slopes of the channels shall be cut true to the proper cross section. The access channels shall be maintained, as needed by the Contractor, to transport equipment and materials to and from the project area for the duration of the construction.

5.5 Navigation

The Contractor shall mark the channels and disposal areas in accordance with the rules and regulations of the U.S. Coast Guard.

5.6 Acceptance

The Construction and Dredge Discharge Line Access Channels are considered complete when the temporary disposal material is backfilled into the access channels and the bottom depth of the temporary disposal area is back to the original grade to the maximum extent practicable. Pre-Construction and As-Built surveys shall be used for verification.

5.7 Measurement and Payment

Payment for Construction and Dredge Discharge Line Access Channel shall be made at contract lump sum price for Bid Item No. 10, "Access Dredging". Price and payment shall constitute full compensation for all materials, labor, supplies and equipment required for dredging the channels and maintaining the dredged channels to the necessary depth for the duration of construction. Sixty percent (60%) of the lump sum payment shall be made upon acceptance of the Dredge Discharge Line Access Channel Process Survey. The remaining forty percent (40%) will paid upon acceptance as specified in TS-5.6.

TS-6 EARTHEN CONTAINMENT DIKES

6.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct and maintain the Earthen Containment Dikes in accordance with these Specifications and in conformity to the lines, grades, elevations, and tolerances shown on the Plans.

6.2 Materials and Construction

The boundaries of the Earthen Containment Dikes are depicted on the Plans. The eastern side of the Earthen Containment Dike for Marsh Creation Area A shall be constructed using material from the back bayou access channel and interior in-situ material to the lines, grades, and elevations specified in the Plans. The north and southern sides of the containment dike for Marsh Creation Area A shall be constructed using interior in-situ material to the lines, grades, and elevations specified in the Plans or as directed by the Engineer. The Earthen Containment Dikes for Marsh Creation Areas B, C, and D shall be constructed using interior in-situ material to the lines, grades, and elevations specified in the Plans or as directed by the Engineer. The Earthen Containment Dikes for Marsh Creation Areas B, C, and D shall be constructed using interior in-situ material to the lines, grades, and elevations specified in the Plans or as directed by the Engineer. The Earthen Ridge shall serve as the western containment dike for all Marsh Creation Areas.

The interior borrow pits for Earthen Containment Dike construction shall be re-filled during hydraulic dredging. Geotechnical boring logs showing material characteristics can be found in Appendix H (boring locations are shown on Plan Sheet 28).

The Contractor shall submit an Earthen Containment Dike construction and maintenance plan in the Work Plan. The Contractor shall take all precautions necessary to prevent turbid water from flowing into adjacent properties and onto areas outside the construction limits. Therefore, the Contractor may be required to construct, temporarily degrade, or gap containment dikes to better control effluent discharge problems persist during construction.

6.3 Access

All equipment for Earthen Containment Dike construction shall access the project area via state water bottoms and Bayou Grand Liard as shown on Plan Sheet 3. Access to the internal areas shall be through open water to the maximum extent possible. Proposed access routes for equipment used to facilitate the construction of the Earthen Containment Dikes shall be submitted in the Work Plan for approval. Any access route that requires travel across existing marsh must first be approved by the Engineer.

6.4 Tolerance

Construction of the Earthen Containment Dikes shall be as close to the elevations and sections shown on the Plans as possible. The maximum elevation is +5.0' NAVD 88 and the minimum elevation is +4.5' NAVD 88.

6.5 Maintenance of Earthen Containment Dikes

The Earthen Containment Dikes shall be maintained to the tolerances stated in TS-6.4. Maintenance of the Earthen Containment Dikes shall continue until final acceptance of the respective Marsh Creation Area. The Process Surveys described in TS-2.4.1 shall be used to determine if a maintenance lift is required on the Earthen Containment Dikes. The Engineer may require the Contractor to perform a maintenance lift based on their evaluation of the Process Surveys. If maintenance of certain reach of Earthen Containment Dike is deemed necessary, the Engineer may require the Contractor to suspend hydraulic dredging operations until the minimum elevation listed in TS-6.4 has been attained.

6.6 Degradation of Earthen Containment Dikes

Upon final acceptance of the Marsh Creation Areas, the Owner may require that the Earthen Containment Dikes be gapped or degraded to the same elevation as the Marsh Creation Areas. Whether a reach of containment dikes should be gapped or degraded shall be determined by the Engineer once construction of the Marsh Creation Area is complete. Location and width of gaps shall be determined by the Engineer. Spoil from dike degradation or gapping shall be used to fill any low lying areas within the Marsh Creation Areas that may exist as a result of the Earthen Containment Dike borrow pits, unless otherwise instructed by the Engineer.

6.7 Acceptance

The Engineer will verify that the Earthen Containment Dikes have been constructed as specified in TS-6.2, and to the tolerances stated in TS-6.4. Once the Contractor has constructed a minimum reach of 1000 linear feet, the Earthen Containment Dike may be surveyed for acceptance and partial payment, per TS-2.4.1. A reach of Earthen Containment Dike will be deemed Acceptable once the Process Surveys confirm that the desired template has been attained. The Engineer may require material placed above the elevation tolerance to be removed at the Contractor's expense. Acceptance by the Engineer does not relieve the Contractor of their responsibility to maintain the Earthen Containment Dikes until final acceptance of the respective Marsh Creation Area.

6.8 Measurement and Payment

Payment for Earthen Containment Dikes shall be made at the contract unit price per linear foot for Bid Item No. 4 "Earthen Containment Dikes". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction, maintenance, and degradation of all required containment and performing all Work as specified herein. The Contractor shall receive ninety percent (90%) of the total payment once the Earthen Containment Dikes are accepted. The Engineer, at their discretion, may verify the Process/As-Built survey results of the

Contractor by conducting an independent survey. The Engineer's survey will be used for acceptance purposes if, in the Engineer's opinion, a significant difference is found between the Contractor's Process/As-Built survey and the Engineer's survey.

The Contractor may request partial payments for the Earthen Containment Dike in 1000 foot continuous, unbroken sections. The linear footage calculated for partial payment shall be determined by the centerline profile survey and acceptance shall be based on the cross-section surveys (see TS-2.4.1). The Final Payment, remaining ten percent (10%), shall be paid to the Contractor upon final acceptance of the Marsh Creation Areas.

TS-7 EARTHEN RIDGE

7.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct and maintain the Earthen Ridge in accordance with these Specifications and in conformity to the lines, grades, elevations, and tolerances shown on the Plans.

7.2 Materials and Construction

The boundaries of the Earthen Ridge are depicted on the Plans. The Earthen Ridge shall be constructed using material from Bayou Grand Liard (primary borrow) and the interior in-situ Marsh Creation Area material (secondary borrow) to the lines, grades, and elevations specified on Plan Sheet 15, or as directed by the Engineer. The Contractor shall dredge the primary borrow source to the maximum -12.0' NAVD 88 elevation and lines and grades shown on the Plans, prior to dredging the secondary borrow source.

The borrow pits inside the Marsh Creation Areas shall be re-filled with material from the hydraulic dredging operations. Geotechnical boring logs showing material characteristics can be found in the design geotechnical report located in Appendix H (boring locations are shown on Plan Sheet 28). The Earthen Ridge shall not be gapped or degraded unless the Contractor is directed to do so by the Engineer.

The Contractor shall submit an Earthen Ridge construction plan in the Work Plan. Should the Contractor have an alternate method for construction of the Earthen Ridge they may submit it in the Work Plan for approval by the Engineer.

7.3 Access

All equipment for Earthen Ridge construction shall access the project area via state water bottoms and Bayou Grand Liard as shown on Plan Sheet 3. Access to the internal Marsh Creation Areas shall be through open water to the maximum extent possible. Proposed access routes for equipment used to facilitate the construction of the Earthen Ridge shall be submitted in the Work Plan for approval. Any access route that requires travel across existing marsh must first be approved by the Engineer.

7.4 Tolerance

Construction of the Earthen Ridge shall be to the lines, grades, and elevations shown on the Plans and these Specifications. The maximum elevation is +5.0' NAVD 88 and the minimum elevation is +4.5' NAVD 88.

7.5 Maintenance of the Earthen Ridge

The Earthen Ridge shall be maintained to the tolerances stated in TS-7.4. Maintenance of the Earthen Ridge shall continue until final acceptance of the respective Marsh Creation Area. The Process Surveys described in TS-2.4.2 shall be used to determine if a maintenance lift is required on the Earthen Ridge. The Engineer may require the Contractor to perform a maintenance lift based on their evaluation of the Process Surveys. If maintenance of certain a reach of Earthen Ridge is deemed necessary, the Engineer may require the Contractor to suspend hydraulic dredging operations until the minimum elevation listed in TS-7.4 has been attained.

7.6 Acceptance

The Earthen Ridge shall be constructed to the tolerance stated in TS-7.4. Once the Contractor has constructed a minimum reach of 1000 linear feet, and a 21 day waiting period has passed, the Earthen Ridge may be surveyed for acceptance, per TS-2.4.2. A reach of Earthen Ridge will be deemed acceptable once the Process Surveys listed in TS-2.4.2 confirm that the desired template has been attained. All points along the centerline profile survey must meet the +4.5' NAVD 88 minimum elevation tolerance. Additionally, the cross-section surveys shall verify that the desired template shown on Sheet 15 of Plans has been attained. The Engineer may require material placed above the elevation tolerance to be removed at the Contractor's expense. Acceptance by the Engineer does not relieve the Contractor of their responsibility to maintain the Earthen Ridge until the second Construction Lift has been accepted for the respective Marsh Creation Area.

7.7 Measurement and Payment

Payment for Earthen Ridge shall be made at the contract unit price per linear foot for Bid Item No. 5 "Earthen Ridge". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction, and maintenance of all required ridge material and performing all Work as specified herein. The Contractor shall receive ninety percent (90%) of the total payment once the Earthen Ridge is accepted. The Engineer, at their discretion, may verify the Process/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 Process/As-Built survey and the Engineer's survey. Per GP-47, there will be no payment for placement of Earthen Ridge material in excess of the lines, grades, and elevations shown on the Plans and stated in these Specifications, unless specified by the Engineer.

The Contractor may request partial payments for the Earthen Ridge in 1000 foot continuous, unbroken sections. The linear footage calculated for partial payment

shall be determined by the centerline profile survey, and acceptance shall be based on the cross-section surveys (see Section 2.4.2). The Final Payment, remaining ten percent (10%), shall be paid to the Contractor upon final acceptance of the Marsh Creation Areas.

TS-8 MARSH CREATION HYDRAULIC DREDGING

8.1 Scope

Marsh Creation Hydraulic Dredging shall consist of borrow area excavation and satisfactory placement of dredged material in the designated Marsh Creation Areas in accordance with these Specifications and in conformity to the lines, grades, and elevations shown on the Plans or as directed by the Engineer. East Offshore Borrow Area dredging elevations are between -33.5 to -39.5 feet NAVD 88 as shown on Plan Sheet 4. The material to be dredged may consist of sand, silt, clay, muck, or shell. However, it is the Engineer's opinion that the Borrow Area material predominantly consists of fine clays and silts. Analyses were performed on material from the Borrow Areas which were deemed suitable for this project. Additional materials such as logs, stumps, snags, tires, scrap and other debris may be encountered within the specified limits of dredging and shall be removed and disposed of by the Contractor. For additional information on the soil characteristics of the offshore borrow material, see the boring logs in Appendix H.

8.2 Method

The dredge equipment and attendant plant shall be in satisfactory operating condition, capable of efficiently performing the Work as set forth on the Plans and Specifications, and shall be subject to inspection by the Owner or Engineer prior to beginning the Work and at all times during construction. Waves, stage fluctuations, and weather conditions within the Borrow Area of the project can prove difficult for some equipment. The Contractor shall include an equipment protection plan for acceptance and approval by the Engineer in the Work Plan prior to the Pre-Construction Conference. The Dredge Data Sheet, including a complete description of the equipment the Contractor intends to use for dredging (size, horsepower, production rate, draft, etc.) must be completed and submitted with the Work Plan. The Dredge Data Sheet may be found in Appendix B.

8.3 Dredge Location Control

No dredging shall be performed except as depicted on the Plans. No hydraulic excavation may take place within five hundred feet (500') of any existing pipeline or submerged transmission line.

The Contractor will be required to pay any costs, fines, or other expenses related to dredging outside of the borrow limits, beyond authorized depths, or any other permit violations resulting from Contractor negligence. If the Contractor does not pay costs, fines, or other expenses related to dredging outside of the borrow limits and/or permit limits, the Owner will deduct said costs, fines, and expenses from payments due the Contractor. Additionally, said costs, fines, and expenses may be recovered from the Contractor's bond for payment.

8.3.1 Horizontal Control

The Contractor is required to have electronic positioning equipment that will locate the dredge when operating in the borrow area. The Contractor shall keep this equipment functioning on the dredge at all times during construction and when the dredge is within one (1) mile of the borrow area. The Contractor is required to calibrate the equipment as required by the manufacturer. Proof of calibration shall be submitted to the Owner and Engineer. Continuous location of the dredge shall be monitored at all times during dredging operations. The location is to be computed by coordinates in the Louisiana State Plane South Coordinate System, NAD 1983 (Lambert Conformal Conic) with a range error not to exceed six feet (6'). Positions shall be recorded at least every ten (10) minutes and furnished daily as part of the Contractor's Daily Quality Control Reports, along with the track of the dredge in relation to the dredge site. The Contractor's method of documenting the location of the dredge shall be submitted to the Owner and Engineer for review and approval with the Contractor's Work Plan.

8.3.2 Dredging Elevations

The Contractor is also required to have a dredging depth indicator capable of gauging and recording the depth being dredged at all times for each piece and type of dredging plant being utilized. The instrument may be a graph type paper or electronic recorder. The paper or depth record produced by this instrument shall be submitted daily with the Daily Quality Control Report. Flagging or marking the winch cables is not an acceptable option to fulfill this instrument requirement. The indicators shall be in plain view of Operators and Resident Project Representative and be adjusted to the reference datum, NAVD 88 (Geoid 03 2004.65). The Contractor shall use surveying equipment and methodology specified in TS-2.2 Accuracy and Methodology to achieve this vertical datum if possible. If the borrow area is out of the range of the specified equipment, the Contractor shall use measured tides to adjust dredging depth to the reference datum. Proposed tide correction methods and measurements must be submitted in the Contractor's Work Plan for review and approval by the Owner and Engineer. The maximum depth of cut is shown on the Plans.

8.4 Borrow Area

The Contactor shall dredge from the offshore East Borrow Area, shown on Plan Sheet 4, unless otherwise approved by the Engineer. A secondary offshore West Borrow Area has been permitted for use by the Contractor. The Contractor shall submit a request and be approved by the Engineer prior to moving to the secondary offshore borrow area. A description of expected offshore borrow use shall be included in the Work Plan.

8.5 Material Placement

The Contractor shall not begin hydraulic dredging until the Earthen Ridge and Containment Dikes have been accepted for the respective Marsh Creation Area. A two lift construction sequence shall be used to construct the Marsh Creation Areas. The Contractor cannot begin placing fill material on Construction Lift 2 until the first lifts for <u>all four</u> Marsh Creation Areas have been accepted as described in TS-8.10. The Engineer reserves the right to change the elevations of Construction Lift 2 based on the observed settlement of the first lift. The construction lifts shall follow one of the two sequences specified below. The Contractor shall include their chosen construction sequence in the Work Plan.

_	Table 5 Construction Sequence One (North to South)	
1	Marsh Creation Area A	Lift 1: +3.0 to +3.5' NAVD 88
2	Marsh Creation Area B	Lift 1: +3.0 to +3.5' NAVD 88
3	Marsh Creation Area C	Lift 1: +3.0 to +3.5' NAVD 88
4	Marsh Creation Area D	Lift 1: +3.0 to +3.5' NAVD 88
5	Marsh Creation Area A	Lift 2: +2.5 to +3.0' NAVD 88
6	Marsh Creation Area B	Lift 2: +3.0 to +3.5' NAVD 88
7	Marsh Creation Area C	Lift 2: +2.3 to +2.8' NAVD 88
8	Marsh Creation Area D	Lift 2: +2.5 to +3.0' NAVD 88

Table 3 Construction Sequence One (North to South)

Table 4 Construction Sequence Two (South to North)	
Marsh Creation Area D	Lift 1: +3.0 to +3.5' NAVD 88
Marsh Creation Area C	Lift 1: +3.0 to +3.5' NAVD 88
Marsh Creation Area B	Lift 1: +3.0 to +3.5' NAVD 88
Marsh Creation Area A	Lift 1: +3.0 to +3.5' NAVD 88
Marsh Creation Area D	Lift 2: +2.5 to +3.0' NAVD 88
Marsh Creation Area C	Lift 2: +2.3 to +2.8' NAVD 88
Marsh Creation Area B	Lift 2: +3.0 to +3.5' NAVD 88
Marsh Creation Area A	Lift 2: +2.5 to +3.0' NAVD 88
	Marsh Creation Area D Marsh Creation Area C Marsh Creation Area B Marsh Creation Area A Marsh Creation Area D Marsh Creation Area C Marsh Creation Area B

The Contractor shall prevent discharge material from flowing into adjacent properties and onto areas outside the construction limits. Only decanted water shall be discharged from the Marsh Creation Areas. Any material that is deposited other than as indicated on the Plans or as approved by the Engineer may be required, by the Engineer, to be removed and deposited in approved areas at the Contractor's expense. Excess runoff of dredged material onto adjacent marshes shall be prevented by maintaining a sufficient distance from the discharge pipe to Earthen Containment Dikes or through controlling discharge flow rates.

Effluent control shall be maintained by the use of spillboxes/dewatering structures as described in TS-13. The Contractor may be required by the Engineer to operate the dredge at a specified lower production rate and/or to temporarily suspend dredging operations to allow the material to settle and dewater thereby ensuring project elevation and layout is obtained. If the Contractor is required by the Engineer to stop dredging, no additional payments will be granted until dredging activities are allowed to continue.

The Engineer reserves the right to vary the width and grade of the Marsh Creation template from the lines and grades shown on the Plans. The cross sections shown on the Plans were used for the purpose of estimating bid quantities of borrow cut material. Pay quantities will be based on Pre-Construction, Process, and As-Built Surveys in accordance to TS-8.11.

8.6 Restoration of Marsh Damages

The Contractor will be responsible for the restoration of any damages caused by unnecessary and/or careless operation during construction of the Marsh Creation Areas. Restoration may include the placement of additional dredged material to project elevations within the areas of damage at the expense of the Contractor and will be performed at the discretion and direction of the Engineer. All construction corridors in the Marsh Creation Areas shall be repaired by pumping additional material into the area to target marsh elevation.

8.7 Pipeline Leaks

The Contractor shall maintain a tight discharge pipeline at all times. The joints shall be constructed to preclude spillage and leakage. If leaks occur, they shall be promptly repaired. The Contractor will transport the Engineer or Resident Project Representative to the leak repair site for visual inspection. Failure to repair leaks or change the method of operation which causes excessive material loss, as determined by the Engineer, during transport to discharge site will result in suspension of dredging operations and require prompt repair or change of operation to prevent leakage as a prerequisite to the resumption of dredging.

8.8 Tolerance

Placement of hydraulic fill slurry in the Marsh Creation Areas shall be within the elevations and templates shown on the Plans, with vertical tolerances as follows:

	Lift 1 (feet, NAVD 88)	Lift 2 (feet, NAVD 88)
Cell A	Min:+3.0 Max:+3.5	Min:+2.5 Max:+3.0
Cell B	Min:+3.0 Max:+3.5	Min:+3.0 Max:+3.5
Cell C	Min:+3.0 Max:+3.5	Min:+2.3 Max:+2.8
Cell D	Min:+3.0 Max:+3.5	Min:+2.5 Max:+3.0

8.9 Grade Stakes

The Contractor shall be required to install grade stakes within the Marsh Creation Areas to monitor fill elevations. Each Marsh Creation Area shall include the minimum quantity of Grade Stakes as outlined below:

Marsh Creation Area A: 15 Grade Stakes Marsh Creation Area B: 12 Grade Stakes Marsh Creation Area C: 12 Grade Stakes Marsh Creation Area D: 8 Grade Stakes

The stakes shall be embedded at least six feet (6°) into the soil or at a depth sufficient to resist the stakes being moved by fill material placement, tides, or weather. The grade stakes shall be surveyed and maintained throughout construction. Grade Stakes damaged during fill placement shall immediately be repaired or replaced to

maintain the minimum quantity stated above. Materials, flagging, and markings for the Grade Stakes shall be marked as shown on Plan Sheet 24 and approved by the Engineer before installation. After final acceptance of the Marsh Creation Area, the Grade Stakes shall be removed as directed by the Engineer. Proposed Grade Stake locations shall be included in the Work Plan and approved by the Engineer.

8.10 Acceptance

A Marsh Creation Area shall be accepted, by the Engineer, once it meets its final target marsh fill elevation, as stated in TS-8.8, for the respective Marsh Creation Area. To determine if target Marsh Creation Area elevations have been attained throughout both Construction Lifts, Grade Stake elevations shall be recorded daily and reported to the Engineer weekly. The Grade Stake data shall be considered the primary (and only) survey in determining when the first Construction Lift has reached the target elevation. All of the Grade Stakes must be within the tolerance of the first Construction Lift in order to be accepted. In regards to the second Construction Lift, the Grade Stake data shall be utilized to make a preliminary determination that the target elevation has been reached. Once the Engineer accepts that the Grade Stake data indicates that the second Construction Lift has reached target elevation, a topographic survey shall be performed in accordance with TS-2.4.3. At least 80% of the survey points must be within the tolerance of the second Construction Lift for it to be accepted. All Marsh Creation Area surveys shall be witnessed by the Engineer or Resident Project Representative. A Construction Lift is accepted once the Engineer has reviewed and accepted the Process Survey, ensuring the lift has met the elevation and tolerances specified in TS-8.5 and TS-8.8 for the respective Marsh Creation Area. If a Marsh Creation Area is below the target/minimum elevation specified in TS-8.8 at the end of the second Construction Lift, and if the Contractor has not dredged the entire quantity of material specified in the Contract, then the Engineer may require the Contractor to place additional material prior to acceptance. Once a lift has been accepted, dewatering shall continue. The Engineer may require material placed above the elevation tolerance to be removed.

8.11 Measurement and Payment

Payment for all work described in this section shall be paid for at the contract unit price per cubic yard dredged for Bid Item No. 3, "Marsh Creation Hydraulic Dredging". Price and payment shall constitute full compensation for furnishing all plant, labor, materials and equipment for dredging, satisfactory placement of dredged material into designated areas, all operations necessary for dewatering of spoil material, and placement of Grade Stakes. Payment will be based on the result of the comparison of the Offshore Borrow Area Pre-Construction and Process/As-Built surveys. The Engineer will verify the pay quantities provided by the Contractor based on the Pre-Construction and Process/As-Built surveys conducted by the Contractor and accepted by the Engineer. The Engineer, at their discretion, may verify the As-Built survey results of the Contractor. 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. There will be no payment for over-dredging in excess of the quantities, lines, grades, and elevations shown on the Plans and stated in these Specifications, unless specified by the Engineer.

The Contractor may request partial payments monthly. The volume calculated for the partial payment will be determined by the Process Survey cross sections of the Offshore Borrow Area (see TS-2.4.4) that are submitted by the Contractor and accepted by the Engineer. Final Payment will be based on the accepted Process/As-Built Surveys of the Offshore 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 re-survey of the Offshore Borrow Area, which will not be used as a basis for payment.

TS-9 SAND FILL

9.1 Scope

The Sand Fill material is required for vertical placement of the Steel Sheet Piles used in the Sheet Pile Closure Structures. The Contractor shall furnish all of the materials, labor, and equipment necessary to construct and maintain the Sand Fill in accordance with the Specifications and in conformity to the lines, grades, elevations, and tolerances shown on the Plans. The Sand Fill shall be maintained by the Contractor to the greatest extent possible until the sheet pile is driven and the Earthen Ridge fill material is placed on top in accordance with the Plans and these Specifications.

9.2 Material and Construction

The Construction limits of the Sand Fill for each sheet pile closure structure are depicted on the Plans. Sand Fill shall be placed to the lines, grades, and elevations specified in the Plans as necessary to facilitate the installation of each Sheet Pile Closure Structure. Additional details of the Sand Fill placement can be found on Plan Sheets 17 through 23.

The Sand Fill shall be non-plastic and reasonably free from foreign materials and contaminants. Sand shall conform to Section 1003.07 of the <u>Louisiana Standard</u> <u>Specifications for Roads and Bridges</u>, latest edition and consist of the following properties

Sieve	% Passing
1/2"	100
No. 10	75-100
No. 200	0-10

The gradation of the Sand Fill shall be tested for conformity with this Specification using the LADOTD TR-407 grain size distribution test. The test shall be performed in a certified lab. The test results shall be presented numerically and graphically, and submitted to the Engineer for written approval prior to delivery to site. Laboratory testing shall be furnished at the expense of the Contractor. Geotechnical boring logs showing the soil characteristics at each closure structure can be found in Appendix H (Boring locations are shown on Plan Sheet 28).

9.3 Access

All equipment for Sand Fill construction shall access the project area via state water bottoms, Bayou Grand Liard, and the back bayou as show on Plan Sheet 3. Proposed access routes for equipment used to facilitate the construction of the Sand Fill shall be submitted in the Work Plan for approval. Any access route that requires travel across existing marsh must first be approved by the Engineer.

9.4 Tolerance

Construction of the Sand Fill shall be to the elevations and areas shown on the Plans, with a maximum crest vertical tolerance of plus one-half of one foot (0.5') above target elevation for the corresponding Sheet Pile Closure Structure. Additional details for the Sand Fill can be found on the Plans.

9.5 Acceptance

The Engineer will verify that the Sand Fill has been constructed as specified in TS-9.2, and to the tolerances in TS-9.4, based on the As-Built surveys conducted by the Contractor. The Engineer may require material placed above the elevation tolerance to be removed.

9.6 Measurement and Payment

Payment for Sand Fill shall be made at the contract unit price per Cubic Yard in place for Bid Item No. 8 "Sand Fill". The price per cubic yard of Sand Fill will be paid to the Contractor upon acceptance of surveys and the volume calculation as specified in TS-2.4.6. Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction of Sand Fill for all required Sheet Pile Closure Structures and performing all Work as specified herein. Payment will be authorized only for material placed within the Sand Fill template as specified in the Plans and these Specifications. The Engineer will verify the pay quantities provided by the Contractor based on the Pre-Construction and As-Built surveys conducted by the Contractor and accepted by the Engineer. The Engineer, at their discretion, may verify the As-Built survey results of the Contractor. 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. There will be no payment for placing quantities in excess of the lines, grades, and elevations shown on the Plans and stated in these Specifications, unless specified by the Engineer.

For partial payment, the volume contained in each transect shall be calculated once a certain reach elevation is attained and accepted by the Engineer. The volume of Sand Fill placed shall be calculated using the average end area method or other methods approved by the Engineer. Volume calculations shall be stated in cubic yards and submitted to the Engineer for verification.

TS-10 STEEL SHEET PILING

10.1 Scope

The Steel Sheet Piles for the Sheet Pile Closure Structures are required for the construction of the Earthen Ridge and Containment Dikes. These Sheet Pile Closure Structures are located in deep gaps along the Earthen Ridge and Earthen Containment Dike alignments, shown on Plan Sheet 5. The work provided herein consists of furnishing all labor, material, equipment, and performance of all operations required for furnishing, hauling, and driving the steel sheet pile as specified herein and on Plan Sheets 16 through 23.

10.2 Materials

Steel sheet piles shall be ASTM A572 Grade 50 PZ-27 Sections (minimum web thickness = 0.375 in, minimum section modulus = 30.2 in³/ft, and moment of inertia = 184.2 in⁴/ft) or Engineer approved equivalent.

10.3 Fabrication

Steel sheet piles shall be fabricated in accordance with Section 807 of the <u>Louisiana</u> <u>Standard Specifications for Roads and Bridges</u>, latest Edition or Owner approved equivalent. All interior angles for the Closure Structures shall be 135 degrees.

10.4 Driving Sheet Piles

Sheet piles shall be driven with hammers adequate to drive the piles to the required depth in satisfactory condition. To maintain satisfactory alignment, sheet piles shall be driven in increments of penetration necessary to prevent distortion, twisting out of position or pulling apart at interlocks. Use of a vibratory hammer or jets will not be allowed unless otherwise approved by the Engineer.

10.5 Cutoffs

Tops of sheet piling shall be cut off or driven to a straight line at the elevation indicated on the Plans or as directed by the Engineer. If heads of sheet piles are appreciably distorted or otherwise damaged below cut-off level, damaged portions shall be removed and replaced at the expense of the Contractor. Sheet piles damaged during driving, or driven out of proper position or below cut-off elevation, shall be withdrawn and replaced with new piles at the expense of the Contractor.

10.6 Painting/Coating

Before driving, surfaces of steel sheet piling shall be cleaned and painted on the top 20 feet of the sheet. Paint system to be a 2-coat coal tar epoxy-polyamide in accordance with Section 811 of the Louisiana Standard Specifications for Roads and Bridges, latest Edition or Owner approved equivalent.

10.7 Sheet Pile Capping

All Sheet Pile Structures shall be enclosed in the Earthen Ridge and Containment Dike, and maintained throughout construction as specified in TS-6, TS-7, and shown on the Plan Sheets 16 through 23. The Contractor may be required to add material to the Earthen Ridge or Earthen Containment Dike at the location of a Sheet Pile Closure Structure, as specified by the Engineer.

10.8 Acceptance

Steel Sheet Piles shall be accepted once they have been driven to the minimum sheeting tip elevation specified on the Plans. Square footage of sheeting driven beyond the minimum sheeting tip elevation will not be accepted for payment.

10.9 Measurement and Payment

Payment for this item will be made at the contract unit price per square foot in-place for Bid Item No. 7, "Steel Sheet Piling". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction and maintenance of all required Sheet Pile Closures and performing all work specified herein. No payment shall be made for Sheet Piling that are rejected or damaged due to fault or negligence by the Contractor.

TS-11 SETTLEMENT PLATES

11.1 Scope

The Contractor shall furnish all of the materials, labor, and equipment necessary to construct, install, survey, and maintain the Settlement Plates in accordance with the Plans and these Specifications.

11.2 Materials

The Settlement Plates shall be fabricated with a four foot (4') by four foot (4') by one fourth inch ($\frac{1}{4}$ ") steel plate with a three inch (3") diameter galvanized riser pipe attached to the center of the plate with a threaded coupling. The pipe riser shall be 11 feet high to facilitate elevation readings. The top will be closed with a threaded galvanized cap. After fabrication, the plates shall be hot-dipped galvanized.

11.3 Zinc Coating

Zinc coating shall be applied in a manner and thickness quality conforming to ASTM A 123. In any case where zinc coating becomes damaged, the damaged area shall be re-galvanized with a suitable low-melting zinc base alloy as recommended by the American Hot-Dip Galvanizers Association. One coat of a vinyl wash primer followed by red top coat shall be applied over the zinc coat. All painting shall conform to Section 811 and 1008 of the Louisiana Standard Specifications for Roads and Bridges, latest edition.

11.4 Installation

The Settlement Plates must be installed and surveyed no more than three days prior to fill placement in the respective Marsh Creation Area and no more than three days prior to the respective reach of the Earthen Ridge. The settlement plate shall be surveyed as specified in TS-2. The settlement plate shall be installed on the Earthen Ridge alignment and within the Marsh Creation Areas at the locations shown on the Plans or as directed by the Owner and Engineer. The settlement plate must be placed such that the vertical pipe conforms to a vertical plumb standard of no more than 10.5° from true vertical. The pipe shall also be marked with brightly colored flagging or reflector tape. The Contractor shall exercise care when placing any construction materials in the vicinity of the settlement plate. Any damaged settlement plate shall be replaced by the Contractor at no expense to the Owner. Damaged settlement plates are defined as plates which would not accurately represent elevation of the project feature in question as determined by the Owner and 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 a manner that the density of the plate bed 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. Installed Settlement Plates shall not be stabilized by placement of fill material in excess of construction elevations. The Contractor shall minimize use of equipment in the immediate vicinity of the installed Settlement Plates to avoid excessive loading.

11.5 Maintenance

The Contractor shall maintain the Settlement Plates until the Work is completed. Any damaged Settlement Plate shall be repaired or replaced by the Contractor at no expense to the Owner.

11.6 Measurement and Payment

Payment for this item will be made at the contract unit price per each for Bid Item No. 9, "Settlement Plates". Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction and maintenance of all required settlement plates and performing all work specified herein. No payment shall be made for settlement plates that are rejected or damaged due to fault or negligence by the Contractor.

TS-12 AIDS TO NAVIGATION

12.1 General Description

Discharge lines that cross a navigable channel must be submerged. Lighted aids to navigation shall be deployed prior to commencement of any dredging operations. Lighted aids to navigation are required to maintain safe working conditions for construction in navigation channels. The Contractor shall provide, install, maintain, and remove lighted aids as specified herein at no direct pay. Any damage to existing U.S. Coast Guard or private navigation aids caused by the Contractor shall be repaired by the Contractor to U.S. Coast Guard standards at no expense to the Owner.

12.2 Navigation Aids

Aids to navigation shall be installed prior to any dredging equipment entering the Off Shore Borrow Area or placing the dredge discharge pipeline from the borrow area to the Marsh Creation Areas. Submerged pipelines and any anchors securing the pipeline shall rest on the channel and shall be marked in accordance with USCG requirements. Submerged lines shall at no time reduce the depth and width of the existing channel in which it is placed by more than one foot (1.0°) . The depth of any pipeline crossing a navigation channel shall be submitted to the USCG for publication. All submerged pipelines installed shall be marked with fluorescent orange buoys and signs stating "DANGER SUBMERGED PIPELINE" every one hundred fifty feet (150') for the length of the pipeline. "DANGER SUBMERGED PIPELINE" signs shall also be placed at the beginning and end of all submerged pipelines and at all abrupt changes of direction. Unless otherwise specified by the USCG, submerged pipelines are considered to require special marks in accordance with USCG regulations and shall have USCG approved flashing yellow lights. When the submerged line is placed in shallow water, outside the navigable channel, where the possibility exists for small boats to cross over the submerged pipeline, the pipeline shall be marked with fluorescent orange buoys and signs stating "DANGER SUBMERGED PIPELINE" every one hundred fifty feet (150') throughout the length of the submerged pipeline. The Contractor shall notify the U.S. Coast Guard in accordance with subparagraph "Notice of Intent to Dredge". The notification shall contain maps, latitude/longitude coordinates, and descriptions of lighted aids for inclusion in the Notice to Mariners.

12.3 Operation and Maintenance

The Contractor shall operate and maintain all the lighted aids and the submerged discharge line. Should lighted dredging aids to navigation leave positioned locations, or otherwise fail to function as required, the Contractor shall reposition/repair the aids within 24 hours. If any of the buoys are not maintained in the proper location or condition, the Contractor shall cease dredging operations until the buoys are maintained, replaced, or repositioned.

12.4 Removal

The Contractor shall remove all lighted dredging aids to navigation, piles, chains, anchors, submerged discharge lines, etc. from the project area upon completion of this project.

12.5 Location for Installation

No lighting is required for the marking of the perimeter of the dredge area. The dredge, anchor buoys, and floating dredge lines in the area must be marked in accordance with U.S. Coast Guard Navigation Rules. The lights must have a one mile nominal range and should be set every half mile. The cost of any work associated with lighting aids shall be included in Bid Item No. 1, "Mobilization and Demobilization".

TS-13 WATER DISCHARGE

13.1 Turbidity Control

The Contractor is required to discharge water from the Marsh Creation Areas into surrounding wetland areas to avoid impoundment of water and allow for consolidation of fill material. 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. The plan must contain methods to limit turbidity and sedimentation in open water. The turbidity control plan must be submitted in the Work Plan, fourteen (14) days prior to the Pre-Construction Conference.

13.2 Water Control Structures

The Contractor shall dewater the Marsh Creation Areas such that it minimizes the amount of material which is allowed to escape the system and flow into Bayou Grand Liard. Dewatering is not allowed through the Earthen Ridge. The Contractor shall provide temporary facilities, such as training dikes, turbidity screens, spill boxes, weirs, sedimentation berms, etc. necessary to dewater the material placed in the Marsh Creation Area. Temporary controls shall be removed by the Contractor upon completion of the Work at the Contractor's expense. The Contractor shall include proposed dewatering locations and methodology in the Work Plan, which shall be submitted to the Engineer for approval prior to construction. No plastic sheeting (such as Visqueen) will be allowed as part of a Water Control Structure.

The Contractor may use any number or design of water control structures for water discharge provided the structure is of sufficient size to discharge an appropriate volume of water and control loss of fill material. The rate of discharge must be manually controllable with the ability to completely shut off discharge through the structure. The turbidity control plan should include the quantity and type of water control structure and describe the method and timing of removal of any proposed water control structures. The cost of any water control structures associated with dewatering discharge shall be included in Bid Item No. 3, "Marsh Creation Hydraulic Dredging".

TS-14 VESSEL-SHORE TRANSFERS

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

TS-15 WORK AREA

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 areas and storage areas.

TS-16 TEMPORARY WARNING SIGNS

16.1 Scope

The Contractor shall furnish all of the materials, labor and equipment necessary to construct and install the Temporary Warning Signs in accordance with the Plans and these Specifications. The Contractor shall submit a Private Aids to Navigation Application (Form CG-2554) to the United States Department of Homeland Security, United States Coast Guard (USCG) for approval prior to dredging any access and flotation channels. The Temporary Warning Signs shall conform to Title 3, Chapter 1 of the Code of Federal Regulations which requires signage, lighted buoys, or a combination of both aids to be installed near hazards to navigation. The USCG may require that the Contractor provide the coordinates of the Temporary Warning Signs after they are installed. It shall be the Contractor's responsibility to maintain these warning sign during construction and remove them prior to final demobilization. Locations of the Temporary Warning Signs shall be included in the Work Plan.

16.2 Measurement and Payment

The cost of any work and materials associated with Warning Signs shall be included in Bid Item No. 1, "Mobilization and Demobilization".

TS-17 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 Bayou Grand Liard, Gulf of Mexico, 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 for the Marsh Creation and Earthen Ridge operation shall be completely removed and shall not be left buried in the fill.

END OF PART III – TECHNICAL SPECIFICATIONS