BID DOCUMENTS FOR

BAYOU DUPONT III EARTHEN TERRACES (BA-164)

PLAQUEMINES PARISH, LOUISIANA









STATE OF LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY

JUNE 2016



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- 3. Project Layout
- 4. Access Corridor
- 5. Terrace Creation Area Layout
- 6. Bathymetry And Magnetometer Data
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ADVERTISEMENT FOR BIDS

Sealed bids will be received for the State of Louisiana by the Coastal Protection and Restoration Authority, 150 Terrace Avenue, Conference Room 1-152, Baton Rouge, Louisiana 70802 until 2:00 P.M., <u>Wednesday, October 5, 2016</u>.

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

FOR: BAYOU DUPONT III – EARTHEN TERRACES

Plaquemines Parish, Louisiana

PROJECT NUMBER: **BA-164**

Complete Bid Documents for this project are available in electronic form. They may be obtained without charge and without deposit from www.coastal.la.gov/resources/doing-business-with-cpra/bids/. Printed copies can also be obtained from:

COASTAL PROTECTION AND RESTORATION AUTHORITY (CPRA)

150 Terrace Avenue Baton Rouge, LA 70804 Attn: Renee McKee

E-mail: cpra.bidding@la.gov Phone: (225) 342-0811 Fax: (225) 342-4674

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

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

A MANDATORY PRE-BID CONFERENCE WILL BE HELD at 10:00 am on Wednesday, September 21, 2016 at Estelle Playground, 5801 Leo Kerner Lafitte Parkway, Marrero, LA 70072.

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 12:00 pm on Wednesday, September 21, 2016 at Estelle Playground, 5801 Leo Kerner Lafitte Parkway, Marrero, LA 70072

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. The jobsite visit will begin with the portion of the project area accessible only by airboat. Contractors shall be responsible for providing their own airboat and any rental and boat launching fees.

Contact Devyani Kar at (225) 342-6312 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. 37:2150-2192 for the classification of <u>Heavy</u> <u>Construction or Specialty: Dredging</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 (10) working days prior to the day on which bids are to be opened.

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

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

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

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

STATE OF LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY MICHAEL R. ELLIS, EXECUTIVE DIRECTOR

INSTRUCTIONS TO BIDDERS

COMPLETION TIME:

The Bidder shall agree to fully complete the contract within **One Hundred Eighty** (180) 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 Dollars** (\$2,000.00) for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the contract completion date stated on the "Notice to Proceed" or as amended by change order.

ARTICLE 1

DEFINITIONS

1.1 The Bid Documents include the following:

Advertisement for Bids

Instructions to Bidders

Bid Form

Bid Bond

General Provisions

Special Provisions

Technical Specifications

Construction Drawings

Contract Between Owner and Contractor and Performance and Payment Bond

Affidavit

User Agency Documents (if applicable)

Change Order Form

Recommendation of Acceptance

Other Documents (if applicable)

Addenda issued during the bid period and acknowledged in the Bid Form

- 1.2 All definitions set forth in the General Provisions and the Special Provisions are applicable to the Bid Documents, unless otherwise specifically stated or written.
- 1.3 Addenda are written and/or graphic instruments issued by the Engineer prior to the opening of bids

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

- 1.4 A bid is a complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein supported by data called for by the Bid Documents.
- 1.5 Base bid is the sum stated in the bid for which the Bidder offers to perform the work described as the base, to which work may be added, or deleted for sums stated in alternate bids.
- 1.6 An alternate bid (or alternate) is an amount stated in the bid to be added to the amount of the base bid if the corresponding change in project scope or materials or methods of construction described in the Bid Documents is accepted.
- 1.7 A Bidder is one who submits a bid for a prime Contract with the Owner for the work described in the Bid Documents.
- 1.8 A Sub-bidder is one who submits a bid to a Bidder for materials and/or labor for a portion of the work.
- 1.9 Where the word "Engineer" is used in any of the documents, it shall refer to the Prime Designer of the project, regardless of discipline.

ARTICLE 2

PRE-BID CONFERENCE

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

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

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

ARTICLE 3

BIDDER'S REPRESENTATION

- 3.1 Each Bidder by making his bid represents that:
- 3.1.1 He has read and understands the Bid Documents and his bid is made in accordance therewith.
- 3.1.2 He has visited the site and has familiarized himself with the local conditions under which the work is to be performed.
- 3.1.3 His bid is based solely upon the materials, systems and equipment described in the Bid Documents as advertised and as modified by addenda.
- 3.1.4 His bid is not based on any verbal instructions contrary to the Bid Documents and addenda.
- 3.1.5 He is familiar with the Code of Governmental Ethics requirement that prohibits public servants and/or their immediate family members from bidding on or entering into contracts; he is aware that the Designer and its principal owners are considered Public Servants under the Code of Governmental Ethics for the limited purposes and scope of the Design Contract with the State on this Project (see Ethics Board Advisory Opinion, No. 2009-378 and 2010-128); and neither he nor any principal of the

Bidder with a controlling interest therein has an immediate family relationship with the Designer or any principal within the Designer's firm. (see La. R.S. 42:1113). Any Bidder submitting a bid in violation of this clause shall be disqualified and any contract entered into in violation of this clause shall be null and void.

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

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

ARTICLE 4

BID DOCUMENTS

- 4.1 Copies
- 4.1.1 Bid Documents may be obtained from the Coastal Protection and Restoration Authority as stated in the Advertisement for Bids.
- 4.1.1.2 In addition to the availability of printed Bid Documents, the Coastal Protection and Restoration Authority will provide the Bid Documents in electronic format. They may be obtained without charge and without deposit as stated in the Advertisement for Bids.
- 4.1.1.2.2 Where electronic distribution is provided, all other plan holders are responsible for their own reproduction costs.
- 4.1.2 Complete sets of Bid Documents shall be used in preparing bids; neither the Owner nor the Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.
- 4.1.3 The Owner or Engineer in making copies of the Bid Documents available on the above terms, do so only for the purpose of obtaining

bids on the work and do not confer a license or grant for any other use.

- 4.2 Interpretation or Correction of Bid Documents
- 4.2.1 Bidders shall promptly notify the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids of any ambiguity, inconsistency or error which they may discover upon examination of the Bid Documents or of the site and local conditions.
- 4.2.2 Bidders requiring clarification or interpretation of the Bid Documents shall make a written request to the Coastal Protection and Restoration Authority contact person listed in the Advertisement for Bids, to reach him at least seven days prior to the date for receipt of bids.
- 4.2.3 Any interpretation, correction or change of the Bid Documents will be made by addendum. Interpretations, corrections or changes of the Bid Documents made in any other manner will not be binding and Bidders shall not rely upon such interpretations, corrections and changes.

4.3 Substitutions

- 4.3.1 The materials, products and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitutions shall be allowed after bids are received.
- 4.3.2 No substitution will be considered unless written request for approval has been submitted by the Proposer and has been received by the Engineer at least seven (7) working days prior to the opening of bids. (RS38:2295C) Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including model numbers, drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. It shall be the responsibility of the proposer to

include in his proposal all changes required of the Bid Documents if the proposed product is used. Prior approval is given contingent upon supplier being responsible for any costs which may be necessary to modify the space or facilities needed to accommodate the materials and equipment approved.

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

4.4 Addenda

- 4.4.1 Addenda will be mailed or delivered to all who are known by the Coastal Protection and Restoration Authority to have received a complete set of Bid Documents.
- 4.4.2 Copies of addenda will be made available for inspection wherever Bid Documents are on file for that purpose.
- 4.4.3 Except as described herein, addenda shall not be issued within a period of seventy-two (72) hours prior to the advertised time for the opening of bids, excluding Saturdays, Sundays, and any other legal holidays. If the necessity arises of issuing an addendum modifying the Bid Documents within the seventy-two (72) hour period prior to the advertised time for the opening of bids, then the opening of bids shall be extended at least seven but no more than twenty-one (21) working days, without the requirement of readvertising. The revised time and date for the opening of bids shall be stated in the addendum.
- 4.4.4 Each Bidder shall ascertain from the Coastal Protection and Restoration Authority prior to submitting his bid that he has received all addenda issued, and he shall acknowledge their receipt on the Bid Form.
- 4.4.5 The Owner shall have the right to extend the bid date by up to (30) thirty days without the requirement of re-advertising. Any such extension shall be made by addendum issued by the Coastal Protection and Restoration Authority.

ARTICLE 5

BID PROCEDURE

- 5.1 Form and Style of Bids
- 5.1.1 Bids shall be submitted on the Louisiana Uniform Public Work Bid Form provided by the Engineer.
- 5.1.2 All blanks on the Bid Form shall be filled in manually in ink or typewritten.
- 5.1.3 Bid sums shall be expressed in both words and figures, and in case of discrepancy between the two, the written words shall govern.
- 5.1.4 Any interlineation, alteration or erasure must be initialed by the signer of the bid or his authorized representative.
- 5.1.5 Bidders are cautioned to complete all alternates should such be required in the Bid Form. Failure to submit alternate prices will render the bid non responsive and shall cause its rejection.
- 5.1.6 Bidders are cautioned to complete all unit prices should such be required in the Bid Form. Unit prices represent a price proposal to do a specified quantity and quality of work.
- 5.1.7 Bidders are strongly cautioned to ensure that all blanks on the bid form are completely and accurately filled in.
- 5.1.8 Bidder shall make no additional stipulations on the Bid Form nor qualify his bid in any other manner.
- 5.1.9 The bid shall include the legal name of Bidder. Written evidence of the authority of the person signing the bid shall be submitted at the time of bidding.

The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable under any of the following conditions:
(a) Signature on bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership, limited liability company, limited liability

- partnership, or other legal entity listed in the most current business records on file with the Secretary of State
- (b) Signature on bid is that of authorized representative as documented by the legal entity certifying the authority of the person.
- (c) Legal entity has filed in the appropriate records of the Secretary of State, an affidavit, resolution or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office. A bid submitted by an agency shall have a current Power of Attorney attached certifying agent's authority to bind Bidder. The name and license number on the envelope shall be the same as the entity identified on the Bid Form.
- 5.1.10 On any bid in excess of fifty thousand dollars (\$50,000.00), the Contractor shall certify that he is licensed under R.S. 37: 2150-2173 and show his license number on the bid above his signature or his duly authorized representative.

5.2 Bid Security

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

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

surety to sign the bid bond shall result in the rejection of the bid.

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

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

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

5.3 Submission of Bids

5.3.1 The Bid shall be sealed in an opaque envelope. The bid envelope shall be identified on the outside with the name of the project, and the name, address, and license number of the Bidder. The envelope shall contain only one bid form and will be received until the time specified and at the place specified in the Advertisement for Bids. It shall be the specific responsibility of the Bidder to deliver his sealed bid to Facility Planning and Control Department at the appointed place and prior to the announced time for the opening of bids. Late delivery of a bid for any reason, including late delivery by United States Mail, or express delivery, shall disqualify the bid.

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

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 shall the Owner mitigate the General Contractor's losses or reimburse the General Contractor for losses caused by these events.

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

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

ARTICLE 8

PERFORMANCE AND PAYMENT BOND

8.1 Bond Required

8.1.1 The Contractor shall furnish and pay for a Performance and Payment Bond written by a company licensed to do business in Louisiana, which shall be signed by the surety's agent or attorney-in-fact, in an amount equal to 100% of

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

8.2 Time of Delivery and Form of Bond

- 8.2.1 The Bidder shall deliver the required bond to the Owner simultaneous with the execution of the Contract.
- 8.2.2 Bond shall be in the form furnished by the Coastal Protection and Restoration Authority, entitled CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND, a copy of which is included in the Bid Documents.

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

ARTICLE 9

FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 Form to be Used

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

9.2 Award

- 9.2.1 Before award of the Contract, the successful Bidder shall furnish to the Owner a copy of a Disclosure of Ownership Affidavit stamped by the Secretary of State, a certified copy of the minutes of the corporation or partnership meeting which authorized the party executing the bid to sign on behalf of the Contractor.
- 9.2.2 In accordance with Louisiana Law, when the Contract is awarded, the successful Bidder shall, at the time of the signing of the Contract, execute the Non-Collusion Affidavit included in the Contract Documents
- 9.2.3 When this project is financed either partially or entirely with State Bonds, the award of this Contract is contingent upon the sale of bonds by the State Bond Commission. The State shall incur no obligation to the Contractor until the Contract between Owner and Contractor is duly executed.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

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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.

^{*} 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(B)(5).

LOUISIANA UNIFORM PUBLIC WORK BID FORM **UNIT PRICE FORM**

	Facility Planning and Control P.O. Box 94095				ing Project	
Claiborne Building			(BA-164)			
	uge, LA 70804	_	Plaquemines Parish, LA			
	rovide name and addre	ess of owner)			to provide name of project and other identifying information)	
UNIT PRICES: 7	This form shall be	used for any and all wor	k required by the	Bidding Documents and describ	ed as unit prices. Amounts shall be stated in figures and or	nly in figures.
DESCRIPTION:	■ Base Bid or □	Alt.#Mobilization ar	nd 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.#Terracing / Med	chanical Dredging			
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
2	9,679	Linear Feet				
DESCRIPTION:	■ Base Bid or □	Alt.# Construction S	burveys			
REF. NO.	QUANTITY:	UNIT OF MEASURE:		UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
3	1	Lump Sum				
DESCRIPTION:	☐ Base Bid or ☐	Alt.#Not Applicable				
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 Applicable				
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 Applicable				
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 Applicable				
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 Applicable				
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.

TO:

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

BID BOND

FOR

COASTAL PROTECTION AND RESTORATION AUTHORITY PROJECTS

	Date:
KNOW ALL MEN BY THESE PRESENTS:	
That	of
alternates, lawful money of the United States, for I	, as Surety, ana, Coastal Protection and Restoration Authority cent of the total amount of this proposal, including all payment of which sum, well and truly be made, we bind cessors and assigns, jointly and severally firmly by
Management Service list of approved bonding co that the amount for which it obligates itself in this company with at least an A - rating in the latest pr	current U. S. Department of the Treasury Financial mpanies as approved for an amount equal to or greater instrument or that it is a Louisiana domiciled insurance finting of the A. M. Best's Key Rating Guide. If surety ount may not exceed ten percent of policyholders' surplus ide.
	d to do business in the State of Louisiana and that this et. This Bid Bond is accompanied by appropriate power
THE CONDITION OF THIS OBLIGATE submitting its proposal to the Obligee on a Contract	ION IS SUCH that, whereas said Principal is herewith et for:
within such time as may be specified, enter into the	et be awarded to the Principal and the Principal shall, e Contract in writing and give a good and sufficient bond ons of the Contract with surety acceptable to the Obligee, oligation shall become due and payable.
PRINCIPAL (BIDDER)	SURETY
BY:AUTHORIZED OFFICER-OWNER-PARTNER	BY: AGENT OR ATTORNEY-IN-FACT(SEAL)

BAYOU DUPONT III – EARTHEN TERRACES	<u>BA-164</u>
Name of Project	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)

- (c) Extortion (R.S. 14:66)
- (b) Corrupt influencing (R.S. 14:120)
- (d) Money laundering (R.S. 14:23)
- B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:
 - (a) Theft (R.S. 14:67)
 - (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 employees in the state of Louisiana are legal citizens of the United States or are legal aliens.
- B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.
- C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

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 SIGNATOR	RY OF BIDDER
DATE	TITLE OF AUTHORIZED SIGNATOR	RY OF BIDDER
	SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER/AFFIANT	_
Sworn to and subscribed before m	e by Affiant on the day of, 20_	<u>_</u> .
	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 da	v of	2016, by
(CONTRACTOR NAME) hereinafter called the "C and the State of Louisiana Coastal Protection and Ro Director executing this contract, and hereinafter ca	Contractor", whose business addres estoration Authority, herein representation	ss is,
Witnesseth that the Contractor and the covenants; consideration and agreement herein con		nises and the mutual
Statement of Work: The contractor shall furequired to build, construct and complete in a thoro		erform all of the work
Project No	Site Code	
in strict accordance with Contract Docume	ents prepared by Owner.	
It is recognized by the parties herein that s and not of limitation, the Plans, Specifications (in Technical Specifications), Any Addenda thereto, In Bids, Affidavit, Bid Form, Bonds (Bid, Pe Documentation, Notice of Award, Notice to Procee obligations upon the parties herein, and said parties and obligations. For these purposes, all of the Documents are incorporated herein by reference we Documents were herein set out in full.	including General Provisions, Sp astructions To Bidders, this Contra- erformance, and Payment), any d, Change Orders, and Claims, if a es thereby agree that they shall be provisions contained in the afor	pecial Provisions, and act, Advertisement For Submitted Post-Bid any, impose duties and a bound by said duties rementioned Contract
<u>Time for Completion</u> : The work shall be of the Owner and shall be completed within date.		
Liquidated Damages: Contractor shall \$ per day for each consecutive calendar of day beyond the completion time.		
Compensation to be paid to the Contractor full consideration for the performance of the contract represents the Contract Price.		

<u>Performance and Payment Bond</u> : To these p	resents personally came and intervened
, herein acting for	, a corporation organized
and existing under the laws of the State of	, and duly authorized to transact business in the
State of Louisiana, as surety, who declared that ha	ving taken cognizance of this contract and of the
Construction Documents mentioned herein, he hereby	in his capacity as its Attorney in Fact obligates his
said company, as Surety for the said Contract	or, unto the said Owner, up to the sum of
Dollars (\$). By issuance of this bond, to	he 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: Michael Ellis, Executive Director		
	BY:		
	SURETY:		
	BY:ATTORNEY IN FACT		
	ADDRESS		
	TELEPHONE NUMBER		

STATE OF LOUISIANA

STATE OF LOUISIANA		
PARISH OF		
	PROJECT NO.	
	NAME	
	LOCATION:	

AFFIDAVIT

PART I.

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

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

PART II.

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

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

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

That affiant, if subject to the provisions of this section, does hereby agree to the penalties involved for the violation of this section.	be subject to
AFFIANT	
SWORN TO AND SUBSCRIBED BEFORE ME THIS DAY OF	, 2016.
NOTARY	

PART I GENERAL PROVISIONS

GP-1 DEFINITION OF TERMS

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

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

<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.

<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.

<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.

A.S.T.M.: American Society for Testing and Materials.

<u>Bid</u>: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.

<u>Bidder</u>: The person, association of persons, firm, or corporation submitting a proposal for the Work.

<u>Bidding Requirements</u>: The Advertisement for Bids, Instructions to Bidders, Form of Bid Security, if any, and Bid Form with any supplements.

<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.

<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.

<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.

<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.

<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.

<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.

<u>Contractor</u>: The person, association of persons, firm, or corporation entering into the duly awarded Contract.

<u>Contracting Agency</u>: The State of Louisiana, Coastal Protection and Restoration Authority (CPRA).

<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.

<u>Design Report</u>: A written report by the Engineer which provides the design methodology for the Work.

<u>Earthen Terrace</u>: An earthen structure created from in-situ material, shaped into dimensions as shown in the Plans.

<u>Effective Date of the Contract</u>: The date indicated in the Contract on which it becomes effective.

<u>Engineer</u>: The State of Louisiana, Coastal Protection and Restoration Authority, or its designee.

<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>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.

<u>Federal Sponsor</u>: The federal agency which has been tasked, if applicable, to manage the implementation of the project.

<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.

<u>Laboratory</u>: The firm, company, or corporation which is used to test materials and is approved for use by the Engineer.

<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.

<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.

<u>Milestone</u>: A principal event specified in the Contract Documents relating to an intermediated completion date or time prior to the Contract Times.

<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.

<u>Notice to Proceed</u>: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.

Owner: The Owner is the State of Louisiana (State) which acts through the Contracting Agency.

<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.

<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.

<u>Project Site</u>: The location where the Work is to be performed as stated in the Contract Documents.

<u>Resident Project Representative</u>: An authorized representative of the Engineer who is responsible to inspect the Work and materials furnished by the Contractor.

<u>Right-of-way</u>: That entire area reserved for constructing, maintaining, and protecting the proposed improvement, structures, and appurtenances of the Work.

<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.

<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.

<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.

State: The State of Louisiana.

<u>Structures</u>: Bridges, plugs, weirs, bulkheads, berms, dams, levees, and other miscellaneous construction encountered during the Work and not otherwise classified herein.

<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.

<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.

Successful Bidder: The lowest responsible Bidder whom the Owner makes an award.

<u>Special Provisions</u>: That part of the Contract Documents which amends or supplements these General Provisions.

<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.

<u>Temporary Structures</u>: Any non-permanent structure required while engaged in the prosecution of the Contract.

Work: All work specified herein or indicated on the Plans.

<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 <u>Louisiana Standard Specifications for Roads and Bridges</u>, 2006 edition. The Bidder understands that all quantities for performing the Work have been estimated by the Engineer, and that the Bid shall be the sum of the quantities multiplied by their respective unit rates. The Contract shall be awarded by the Owner through a comparison of all bids. It is the responsibility of each Bidder before submitting a Bid to:

- 2.1. Examine the Bidding Documents including the Plans and Specifications and any Addenda or related data identified in the Bidding Documents;
- 2.2. Visit the Project Site to become familiar with the local conditions if they are believed to affect cost, progress, or the completion of the Work;
- 2.3. Become familiar and satisfied with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of the Work;
- 2.4. Study and correlate all information known to the Bidder including observations obtained from Bidder's visits, if any, to the Project Site, with the Bidding Documents;

- 2.5. Submit a written notice to the Engineer within three (3) days regarding any conflicts, errors, ambiguities, or discrepancies discovered in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidder; and
- 2.6. Determine that the Bidding Documents are generally sufficient to convey an understanding of all terms and conditions for completing the required Work.

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

GP-3 AVAILABILITY OF PLANS AND SPECIFICATIONS

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

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

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

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

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

The Contractor shall abide by laws set forth in the Davis-Bacon Act of 1931 which states that all laborers and mechanics employed by recipients, the recipient's contractors, or

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

GP-5 PRE-BID CONFERENCE AND SITE VISIT

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

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

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

GP-6 NOTICE OF AWARD

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

GP-7 NOTICE TO PROCEED AND CONTRACT TIME

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

Alternate Bid(s), and the Alternate Bid(s) is awarded and included in the Contract, the Contract Time associated with the Alternate Bid(s) will be as provided in the Instructions To Bidders.

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:

All of the elements in the Work Plan, including updates;

A work order issued from Louisiana One Call ordering all their subscribers in the project area to mark their utilities:

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 aides (I.E., warning signs, lighted marker buoys) and any repairs performed on them;
- h. Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);

- i. The amount of time lost to severe weather or personnel injury, etc;
- j. Notes regarding compliance with the Progress Schedule;
- k. Visitor log (Instructions for format will be furnished by the Field Engineer).

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

GP-11 HURRICANE AND SEVERE STORM PLAN

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

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

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

GP-12 HEALTH AND SAFETY PLAN AND INSPECTIONS

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

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

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

GP-13 PROGRESS MEETINGS AND REPORTS

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

GP-14 PRE-CONSTRUCTION CONFERENCE

A Pre-Construction Conference shall be held by the Contractor, Owner, Engineer, local stakeholders, and other appropriate personnel prior to starting construction on the date specified in the Special Provisions. This conference shall serve to establish a mutual understanding of the Work to be performed, the elements of the Progress Schedule and Work Plan, expectations for bi-weekly progress meetings, the Plans and Specifications, processing Applications for Payment, and any other items of concern. If any subcontractors are not present, another preconstruction 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, LDEQ Clean Water Permit, LDWF Fill Material License, and LADOTD highway crossing permit have been secured by the Owner. Permit conditions affecting the construction processes have been included in these Specifications. Copies of these permits will be provided to the Contractor at the pre-construction conference. These permits will not relieve the responsibility of the Contractor from obtaining any additional permits which may be needed to complete the Work. Copies of any special permits that are obtained by the Contractor must be submitted to the Owner. The Contractor shall conform to the requirements therein and display copies of the permits in a public setting at the Project Site at all times.

GP-27 PROJECT SITE CLEAN-UP

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

GP-28 OWNER INSPECTION

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

The Owner shall notify the Contractor prior to all tests, inspections, and approvals of the Work which are to be conducted at the Project Site. The Owner shall also provide the Contractor with the written results of all inspections and tests. Inspections, tests, or Payments made by the Owner shall not constitute acceptance of non-conforming Work 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/?pageName=navRulesContent.

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

GP-37 OBSTRUCTION TO NAVIGATION

The Contractor shall minimize all obstructions to navigation in compliance with pertinent U. S. Coast Guard regulations while conducting the Work. The Contractor shall promptly move any floating equipment or marine vessels which obstruct safe passage of other marine vessels. Upon completion of the Work, the Contractor shall remove all marine vessels and other floating

equipment such as temporary ranges, buoys, piles, and other marks or objects that are not permanent features of the Work.

GP-38 MARINE VESSELS AND MARINE ACTIVITIES

All marine vessels regulated by the USCG shall have the required USCG documentation that is current before being placed in service. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be made available to the Owner and Engineer and a copy shall be on board the vessel. All officers and crew shall possess valid USCG licenses as required by USCG regulations. These certificates, classifications, and licenses shall be posted in a public area on board each vessel.

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

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

GP-39 RECORD KEEPING

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

GP-40 CERTIFICATES OF COMPLIANCE

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

GP-41 SUBMITTALS

The Contractor shall review all Submittals for compliance with the requirements of the Contract prior to delivery to the Engineer. Each Submittal shall contain a signed statement by the Contractor that it complies with the Contract requirements with any exceptions explicitly

listed. The Contractor shall comply with these requirements for Submittals from Subcontractors, manufacturers, and suppliers.

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

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

GP-42 CLAIMS FOR EXTRA COST

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

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

GP-43 ALTERATION OF THE CONTRACT AND COMPENSATION

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

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

- a. By application of the unit prices in the Contract to the quantities of the items involved or subsequently agreed upon; or
- b. By mutual acceptance between the Owner and Contractor of a lump sum.

If none of the above methods is agreed upon, the Contractor, provided he is so ordered by the Owner in writing, shall proceed with the Work on a "force account" basis. In such a case, the Contractor shall keep and preserve in such form as the Engineer may direct, a correct itemized

account of the direct cost of labor, materials, equipment, together with vouchers bearing written certification by the Contractor. In any case, the Engineer shall certify to the amount, including an allowance of fifteen percent (15%) for jobsite and home office overhead indirect expenses and profit due to the Contractor. Where such change involves a subcontractor, an allowance of fifteen percent (15%) for overhead and profit shall be due the subcontractor and an allowance of ten percent (10%) shall be due the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer's estimate and as approved in an executed Change Order.

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

GP-44 EXTENSION OF CONTRACT TIME

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

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

45.1 TERMINATION FOR CAUSE

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

- a. The Work is not begun within the time specified in the Notice to Proceed; or
- b. The Work is performed with insufficient workmen, equipment, or materials to assure prompt completion; or
- c. The Contractor performs unsuitable, neglected or rejected work, refuses to remove materials; or
- d. The Work is discontinued; or
- e. The Work is not completed within the Contract Time or time extension; or

- f. Work is not resumed within a reasonable time after receiving a notice to continue; or
- g. The Contractor becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or
- h. The Contractor allows any final judgment to stand unsatisfied for a period of ten (10) days; or
- i. The Contractor makes an assignment for the benefit of creditors; or
- j. The Work is not performed in an acceptable manner.

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

45.2 TERMINATION FOR CONVENIENCE

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

GP-46 TEMPORARY SUSPENSION OF WORK

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

GP-47 NON-CONFORMING AND UNAUTHORIZED WORK

Work not conforming to the Plans, Specifications, Field Orders, or Change Orders shall not be accepted for payment. Unacceptable or unauthorized work shall be removed and replaced in

an acceptable manner at the expense of the Contractor in order to obtain final acceptance of the Work.

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

GP-48 CONTRACTOR'S RIGHT TO TERMINATE CONTRACT

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

GP-49 BREACH OF CONTRACT

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

GP-50 NO WAIVER OF LEGAL RIGHTS

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

GP-51 LIABILITY FOR DAMAGES AND INJURIES

To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner, Engineer, and their officers, employees, representatives, and/or agents from all suits, actions, claims, costs, losses, demands, and judgments (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) brought because of injuries or damage sustained by 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 will issue a Notice of Acceptance identifying the date the Project reached Substantial Completion and attach a punch list, if applicable, identifying the remaining items that must be completed before final payment. The Contractor shall then file the executed Notice of Acceptance with the Clerk of Court in the Parish(s) where the work is performed and shall forward one complete copy of the recorded acceptance to the Owner 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.

The guarantee shall include:

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

The guarantee shall exclude defects or damage caused by:

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

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

- 1. Observations by the Owner or Engineer; or
- 2. Recommendations by the Engineer or payment by the Owner; or
- 3. Use of the Work by the Owner; or

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

GP-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, from any amounts which may be due and owed 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 www.epls.gov.

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

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

Upon receipt of notice of suspension, debarment, or declaration that Contractor or its contractor(s) or any subcontractor(s) is/are ineligible to enter into contracts with any

department or agency of the Federal Government or of the State of Louisiana, either prior to or after execution of this Contract, Owner reserves the right to review cause for said debarment, suspension, or declaration of ineligibility, and to terminate this Contract pursuant to the terms of GP-45 OWNER'S RIGHT TO TERMINATE CONTRACT FOR CAUSE OR CONVENIENCE, or take such other action it deems appropriate under this Contract.

GP-65 LOUISIANA FIRST HIRING ACT

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

- a. The number and types of jobs anticipated for the Work.
- b. The skill level of the jobs anticipated for the Work.
- c. The wage or salary range for each job anticipated for the Work.
- d. Methods, if any, that the Contractor will use to recruit unemployed persons or person employed in low wage jobs to fill job openings for the Work.

END OF PART I - GENERAL PROVISIONS

PART II SPECIAL PROVISIONS

SP-1 LOCATION OF WORK

The Work site is located in Plaquemines Parish east of Bayou Dupont, and southwest of where West Ravenna Road terminates at the back levee. The project site is accessible from LA23 via West Ravenna Road. West Ravenna Road then connects with the access corridor constructed during the creation of the BA-39 project. From this point the site is accessible by water via a shallow (4 ft. water depth) oil and gas canal. See the Plans for access corridor specifics.

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, locations and elevations shown on the Plans or as directed by the Engineer. Quantity calculations, layouts, shop drawings, and construction sequencing of these items shall be provided in the Work Plan.

2.1 Terrace Construction

The following are major tasks of the Work associated with the construction of the earthen terraces:

2.1.1 Mobilization and Demobilization:

Mobilization and Demobilization of personnel and equipment at or to the Project Site;

2.1.2 <u>Earthen Terraces:</u>

Construction of 9,679 linear feet of earthen terraces using adjacent in-situ soils;

2.1.3 Surveys:

Performance and administration of Surveys, including a pre-construction survey, process surveys, and as-built survey;

SP-3 SITE EXAMINATION

It is the responsibility of all potential bidders to visit the project site to assess the location and conditions prior to bidding. Contractors shall be responsible for providing their own boat or any rental and launching fees at the Pre-Bid site visit. Investigation of the Project Site may show that rocks, logs, stumps, snags, debris and other obstructions may be encountered. No removal or disposal of these obstructions shall be made.

- 3.1 The Contractor shall become familiar with the location and conditions of the Project Site. The Contractor shall be aware of shallow waters, stumps, logs, sand bars, mudflats, and any obstructions near the site. Marine maps showing the location of nearby structures, channels, sandbars, and other pertinent information may be obtained from the U.S. Coast Guard.
- 3.2 The Contractor is advised to visit the Project Site to get him/herself familiar with the site conditions. The Contractor shall be responsible for securing all staging and access locations. The Engineer has designated an equipment access corridor and staging area that shall be used by the Contractor. The Contractor shall make contact with the River Rest, LLC contact listed in SP-14 prior to accessing these areas. The Contractor shall use maps and information for the Project Site area, but must always judge site conditions themselves because of changing conditions of tides and currents. No additional compensation shall be allowed for difficult access due to adverse weather and low tides. The Contractor shall verify the types of equipment necessary for accessing the Project Site and completing the Work as specified.

No dredging for site access, mobilization, or any other reason shall be allowed.

SP-4 EXISTING FEATURES

The project site is located in existing open water with deteriorating marsh over 5% of the area. An oil and gas canal to the north and west of the project site as shown on the plans shall be used for access. Per a magnetometer survey completed in 2014 (Appendix E), no known pipelines lie directly within the work limits, however there is a 20" Shell crude pipeline within 100' of the eastern edge of the work limits near the levee as noted on the plans. Contractor shall be responsible for performing a magnetometer survey of the portion of the O&G Canal that is part of the access corridor (Sheet 4 of Plans) and within the Work Limits, and submitting a LA one call request to identify all pipelines in the area. No access dredging is permitted along any of the access channel.

SP-5 PERMITS

By submitting a Bid, the Contractor acknowledges the Permits referenced in GP-26, accepting full responsibility for compliance with these Permits and all stipulations attached, for all Work. As stated in GP-26 the Contractor is responsible for any additional permits necessary to complete the work. The Contractor shall provide the Owner and Engineer with copies of any and all additional Permits obtained by the Contractor. The Contractor shall immediately notify the Engineer in writing of any observed non-compliance with the Permits. The Contractor shall, after such notice, immediately inform the Engineer of proposed corrective action and take such action as may be approved. If the Contractor fails or refuses to comply promptly, the Engineer may notify appropriate permit agencies and issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor. Any costs incurred by the Owner as a result of such actions may be deducted from the Contract amount due the Contractor.

SP-6 BID ITEMS, CONTRACT DATES, AND DELIVERABLES

Milestone	Location or Recipient	Date Due			
Bid Advertisement	Publications	As advertised			
Pre-Bid Conference and Optional Site Visit	Provided in Notice To Bidders	As advertised			
Questions on Bid Documents (GP-5)	Deliver to CPRA email address listed in SP-8	7 Days Prior to the Bid Opening			
Effective Date of Contract	Contractor and Owner	Stated in Contract			
Start of Contract Time (GP-7)	Contractor and Owner	As stated in Notice to Proceed			
List of Subcontractors (GP-19)	Submit to Engineer	Prior to awarding subcontracts			
Work Plan (GP-8)	Submit to Engineer	At least 14 days prior to Pre- Construction Conference			
Progress Schedule (GP-9)	Submit to Engineer	At least 14 days prior to starting construction, bi-weekly thereafter			
Pre-Construction Conference (GP-14)	Contractor and Engineer	As determined by the Engineer after Notice to Proceed is issued			
Daily Progress Reports (GP-10)	Resident Project Representative	Daily by 12pm (noon). (see Appendix F for template)			
Progress Meetings and Bi- Weekly Reports (GP-13, GP- 39)	At Project Site	Bi-weekly or as determined at the Pre-Construction Conference			
Pre-Construction Survey (TS-2.3)	Submit to Engineer	After Pre-Construction Conference and Prior to Construction			
Process Surveys (TS-2.8)	Submit to Engineer	Within 3 days after data collection is complete			
Notice of Substantial Completion (GP-53)	Submit to Engineer	Upon substantial completion of work			
Final Inspection and Acceptance (GP-54)	Submit to Engineer	Upon completion of work			
As-Built Drawings (GP-55)	Deliver to Engineer	Prior to Final Inspection as scheduled by the Engineer			
End of Contract Time	At Project Site	180 calendar days after Notice to Proceed			

SP-7 DELIVERABLES

- 7.1 Prior to Construction
 - 7.1.1 The Contractor shall submit the following documents to the Engineer prior to the Pre-Construction Conference specified in GP-14:
 - 7.1.1.1 Work Plan as specified in GP-8 and SP-6;
 - 7.1.1.2 Progress Schedule as specified in GP-9;
 - 7.1.1.3 Copy of typical Daily Progress Report as specified in GP-10.
 - 7.1.1.4 Hurricane and Severe Storm Plan as specified in GP-11;
 - 7.1.1.5 Health and Safety Plan as specified in GP-12.
 - 7.1.2 The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference specified in GP-14:
 - 7.1.2.1 Updates to all plans and schedules based on comments from the Engineer;
 - 7.1.2.2 Potential construction corridors (if needed, other than from what is provided) which may be approved on an as needed basis
 - 7.1.2.3 A communication plan shall be submitted which specifies the Contractor chain of command, Owner, Engineer, and Resident Project Representative(s) points of contact, corresponding contact information, and procedures for routine and emergency notification.
- 7.2 During Construction

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

- 7.2.1 The results of all surveys and calculations as specified in TS-2;
- 7.2.2 Progress Schedule as specified in GP-9;
- 7.2.3 Daily Progress Reports as specified in GP-10;
- 7.2.4 Copies of all inspection reports;
- 7.2.5 All Change Orders, Field Orders, Claims, Clarifications, and Amendments;
- 7.2.6 Results of any materials testing.

7.3 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.

7.4 Post Construction

7.4.1 Post Terrace Construction

The Contractor shall contact the Engineer by phone or email, a minimum of five (5) working days prior to the anticipated completion of the Construction of the terraces in order to schedule the final inspection and gain Acceptance by the Engineer for that portion of the Work. The following documents shall also be submitted to the Engineer:

- 7.4.1.1 Copies of all delivery slips, not yet submitted, 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;
- 7.4.1.2 As-Built Drawings as specified in GP-55.

SP-8 ADDRESSES FOR CONTRACT 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)

150 Terrace Avenue Baton Rouge, LA 70802 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 CPRA Field Engineer concerning bid documentation or questions. The addresses and contact information for the Engineer is as follows:

CPRA Field Engineer

Barry Richard, PE

New Orleans Regional Office 2045 Lakeshore Dr., CERM Suite 309 New Orleans, LA 70122

Phone: 504-280-4059

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-9 WORK PLAN SUPPLEMENTAL

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

- 9.1 Equipment Data Sheet located in Appendix G;
- 9.2 Layout and schedule for terrace construction;
- 9.3 Layout and schedule for all surveys;
- 9.4 The estimated Work Schedule that shows the planned schedule of dates and time lines for the major elements of work required to complete the Work described in these Specifications, including but not limited to the anticipated dates of the following:

9.4.1 The anticipated date(s) for the site layout and staking;

The Work Plan shall be submitted to the Engineer by the date provided in SP-6. The Engineer shall review the Work Plan and have the Contractor make any necessary revisions prior to acceptance of the plan.

SP-10 FAILURE TO COMPLETE ON TIME

For each day the Work remains incomplete beyond the Contract Time, as specified in the Notice to Proceed, or Extension of Contract Time, as specified in GP-44, the sum of two thousand dollars (\$2,000) 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-11 TRANSPORTATION

The Contractor shall provide a safe and reasonable means of transportation to and from the access corridor and staging area to the construction site for the Engineer and the Resident Project Representative throughout the Work. The schedule and pickup location shall be arranged by the Engineer and the Contractor prior to mobilization. The Contractor shall provide daily transportation capable of access to the entire Work area. This will include a boat or airboat (minimum 4 passenger capacity) and operator, as necessary, for the exclusive use of the Engineer, Resident Project Representative, and other representatives from the State to tour the Project Site during the Work. The boat shall be Coast Guard certified, have an operable marine radio, and have all safety equipment required by the Coast Guard for the size and type of that boat.

The Contractor shall supply the fuel and maintain the boat. All mechanical malfunctions of the boat shall be repaired within twelve (12) hours. In the event that the Contractor refuses, neglects, or delays compliance with the requirements of this provision, the Owner may obtain and use other necessary boats at the expense of the Contractor. The costs associated with providing the boats shall be included in the lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

SP-12 OFFICE FOR OWNER

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

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

SP-13 RESTORATION OF MARSH DAMAGES

The Contractor will be responsible for the restoration of any damages caused by unnecessary and/or careless operation to the existing wetlands during construction. Restoration may include the placement of additional dredged material to reestablish the wetland elevations within the areas of damage at the expense of the Contractor.

SP-14 LANDOWNER AND PIPELINE REQUIREMENTS

The Owner has obtained all temporary easement, servitude, 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 and a map and list of landowners are 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 (Grantors):

Project Site and Access Corridor:

River Rest, LLC 1800 Carol Sue Ave., Suite 7 Gretna, LA 70056 504-392-9902

Contact: Mike Jeansonne

Access Corridor:

Livaudais Company, LLC

4626 East St. Bernard Highway

Meraux, LA 70075

504-952-5154

Contact: Philip Livaudais

The Contractor shall adhere to the following conditions, provisions, and requirements provided in the agreements the State has made with the landowners for this Work.

14.1 Landowner General Provisions

14.1.1 Article III in the agreements includes that should work on (landowner's) lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR(s) as an additional insured on any policies carried by the contractor, including completed operations coverage.

The Contractor shall add the landowners listed above as additional insureds and shall provide Owner documentations of same to the attention of Land Manager at the address set forth in SP-8 for the Field Engineer. It is also agreed and understood that the Contractor will at all times indemnify and hold harmless all landowners from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney's fees, by reason of personal injury, death (including but not limited to injuries to and death of employees of the landowners and the Contractor's employees), or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of your rights hereunder, or to your presence upon or use of the landowners' premises above referred to, or to the use or existence of your facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim, or cause of action is caused by the negligence of the landowners, their employees, agents, or representatives.

- 14.1.2 Article IV includes that the **State through its Contractor shall be responsible for repair...such repair shall be to that condition and value which existed immediately prior to Contractor's activities.** The State through its Contractor shall remove or dispose of all debris associated with construction, operation and maintenance of the Work within three (3) days of completion.
- 14.1.3 Article X includes that the **Agreements shall remain in effect for the twenty-five** (25) year life of the project from the date of signature of the State, unless sooner released by State.
- 14.1.4 Article XIII in some of the agreements includes that the State shall provide, upon request, to Grantor copies of all permits, reports, studies and analysis of all work performed by the State on the property, including all filings with and reports to any governmental authority.

The above requirements are Owners generic language in basic agreements for projects. Final negotiated agreements may have additional requirements and stipulations required by the landowner.

14.2 Pipeline Provisions

- 4.2.1 Magnetometer surveys completed in 2014 (Appendix E) indicate that there are no known pipelines located directly within the work limits. However there is a 20" Shell crude pipeline which runs under the access corridor where it crosses near the Plaquemines back levee. The same pipeline runs along the levee where it is located less than 100' from the earthen terrace construction work limits on the eastern edge of the project site, as noted on the Plans. Extreme caution must be taken when operating machinery near this and any other pipeline found to be within the vicinity of the project site. A Shell representative shall be present when equipment is to cross the 20" Shell Pipeline. The only corridor to be used to cross the Shell Pipeline shall be the Shell Access Road unless otherwise directed by the Shell representative. The Shell Access Road is within the equipment access corridor shown in the plans (Sheet 4), where the equipment access corridor crosses the Plaquemines back levee.
- 14.2.2 All pipelines located within one hundred fifty feet (150') of the earthen terrace work limits shall be probed and their locations marked with buoys or poles prior to excavation and construction of the terraces, for the duration of construction activities. No excavation shall be permitted within one-hundred fifty feet (150') of any pipeline or as designated by the pipeline operator.
- 14.2.3 Special care and extremely close coordination by the construction contractor with the pipeline companies will be crucial in order to avoid impacting the pipelines within or near the project site. Construction activities over any pipeline rights-of-ways may be permitted with consent from the pipeline owner/operator. Verification of pipelines, their depths and draft of the equipment to be used will be essential. The assumption resulting from current investigations does not include oil and gas operations that might commence in the future.
- 14.2.4 The Contractor shall notify all pipeline companies at least seventy-two (72) hours in advance of any construction work. The Contractor must give notice to the pipeline owners within a reasonable amount of time prior to the expected start date for traversing equipment over the pipelines and construction activities to allow the pipeline owners time to have a representative on site during activities over their pipelines. Additional pipeline owner requirements are included within Appendix C. The following pipeline owners have been identified as having pipelines within the project site.

Shell Oil Pipeline Contact: Pratik Bhatka Phone: (713) 241-4660

14.2.5 The Contractor shall contact Louisiana One Call at (800) 272-3020 at least five (5) business days prior to construction.

SP-15 OYSTER LEASE RESTRICTIONS

There are no known existing oyster leases near or within the boundaries of the Project Site. Therefore, no oyster lease restrictions are provided for performing the Work within the boundaries of the Project Site.

SP-16 THREATENED AND ENDANGERED SPECIES

The United States Fish and Wildlife Service stamped and signed a letter on January 6, 2012, (Appendix H) indicating the pallid sturgeon, bald eagle West Indian manatee and colonial nesting birds are active in the area. The letter included in Appendix H provides avoidance guidelines should any of these species be encountered.

SP-17 WORK AREA AND TEMPORARY FENCING

The project site 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 and access roadway traffic. The Contractor will be required to exclude the public, for safety purposes, from the work areas in the immediate vicinity of the 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.

SP-18 NO WORK ZONE

All the areas outside of the project site boundary as shown on the plans shall be designated as no work zones.

SP-19 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, cables, pontoons, or other equipment or materials in the disposal area, pipeline access areas, water areas, underwater in any canals, 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 earthen terrace fill operation shall be completely removed and shall not be left buried in the fill. Upon completion of the final clean-up (i.e. removal of all stakes, debris, and equipment), the Work area shall be redressed to eliminate any undrained pockets, ridges, and depressions in the fill surfaces prior to final acceptance.

SP-20 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.

20.1 Minimum Scope and Limits of Insurance

20.1.1 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.

20.1.2 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	

20.1.3 Automobile and Watercraft Liability

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

NOTE: If the Contractor does not own automobiles and/or watercraft, and such vehicles are utilized in the execution of the contract, then hired and non-owned

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.

20.1.4 Excess Umbrella

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

20.1.5 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.

20.1.6 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.

20.2 Other Insurance Provisions

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

20.2.1.1 Worker's Compensation and Employers Liability Coverage

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

20.2.1.2 General Liability Coverage

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

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

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

20.2.1.3 All Coverages

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

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

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

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

20.2.2 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.

20.2.3 Verification of Coverage

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

State of Louisiana Coastal Protection and Restoration Authority 150 Terrace Avenue Baton Rouge, LA, 70802 Attn: Project # BA-164

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.

20.2.4 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.

20.2.5 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 and employees harmless from any such assertion or claim that may arise from the performance of this contract.

20.2.6 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.

20.3 Performance and Payment Bond

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

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

SP-21 UNIT PRICE AND QUANTITY

Where the quantity of work with respect to any item is covered by a unit price, such quantities are estimated quantities to be used when comparing bids and the right is reserved by the Owner to increase/decrease such quantities as may be necessary to complete the work and/or remain within the funding limits.

SP-22 EMPLOYEE WHISTLEBLOWER PROTECTION

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

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

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

END OF PART II – SPECIAL PROVISIONS

PART III TECHNICAL SPECIFICATIONS

TS-1 MOBILIZATION AND DEMOBILIZATION

1.1 Description

Mobilization consists of all preparatory work and operations, including but not limited to the movement of personnel, equipment, supplies and incidentals to and from the Project Site, establishment of offices and other facilities necessary to perform the Work. The cost of Bonds and any required insurance and any other pre-construction expenses necessary for the start of Work, excluding those items in the Schedule of Bids shall be included in Mobilization and Demobilization.

1.2 Arbitrary Mobilization by Contractor

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

1.3 Ratio of Mobilization and Demobilization Effort

Forty percent (45%) of the mobilization/demobilization lump sum price will be paid to the Contractor upon completion of his mobilization to the BA-164 Project Site and construction of 500 continuous linear feet of accepted earthen terrace. Forty-five percent (45%) of the remaining mobilization/demobilization lump sum price will be paid to the Contractor upon final acceptance of all earthen terrace construction Work and removal of all equipment related to this Work. Ten percent (10%) of the mobilization/demobilization lump sum price will be paid to the Contractor upon final acceptance of all Work.

1.4 Justification of Mobilization Costs

In the event the unit price does not bear a reasonable relation to the amount of work for mobilization and demobilization in the Contract, the Engineer may require the Contractor to produce cost data to justify the unit cost in the Bid. Failure to justify such cost to the satisfaction of the Engineer will result in payment of actual mobilization costs, as determined by the Engineer at the completion of mobilization, actual demobilization cost at the completion of the demobilization. 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 project site and establishing offices, buildings, and other facilities for the work, obtaining bonds, insurance, permit application fees, and any other associated expenses. Mobilization and demobilization shall include all appropriate costs associated with constructing all features listed in these Specifications and/or shown in the Plans.

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 in 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 the project site conditions. Process surveys are conducted during construction for acceptance and partial payment. The As-Built survey shall be a compilation of all the process surveys conducted and accepted during construction.

2.2 Reference and Control

Secondary monument BA03C-SM-02 and secondary monument BA41-SM-01 are part of CPRA's Secondary GPS Network shall be used for horizontal and vertical control. The data sheets for the monuments are included in Appendix I. All surveys shall be under the supervision of a Professional Licensed Surveyor or Professional Engineer and approved by the Engineer. 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 – Geoid03 (NAVD 88-Geoid03), U.S. Survey Foot for vertical control. It is imperative that the correct vertical datum is used, as other vertical datums such as NAVD88-Geoid99 can result in measured differences of up to 1' in the project area.

The Pre-Construction, process and as-built surveys shall use transects shown on Sheet 7 of the Plans, and as described in TS-2.11. Contractor shall submit survey plan with transect coordinates to Engineer for approval prior to all surveying activity.

2.3 Survey Equipment

2.3.1 Topographic

Topographic surveys shall utilize Global Positioning System (GPS) receivers and systems which utilize Real Time Kinematic (RTK) satellite navigation. A six inch (6") diameter metal plate shall be attached to the bottom of the survey rod to prevent the rod from sinking below ground level.

2.3.2 Bathymetric

Bathymetric surveys collected on board vessels must be differentially corrected for tidal fluctuations and wave action to the referenced datum. Bar check results, survey scroll or BIN file, and verification of real-time tide corrections shall also be provided.

2.3.3 Magnetometer

Magnetometer surveys shall be conducted using a Geometrics G-882 magnetometer or equivalent. Track lines shall be sufficiently spaced to adequately detect pipelines, utilities or other obstructions. The coordinates, amplitude, signature type and signature width shall be recorded for all magnetometer anomalies.

2.4 Pre-Construction Survey

The transects shown on the Plans (Sheet 7) shall be surveyed by the Contractor after the Pre-Construction Conference and prior to construction. The Pre-construction survey shall only survey those portions of the design transects that are within the project boundary as shown on Sheet 7 of the Plans. This survey shall be used to verify the alignment of the project features and make modifications or adjustments as deemed necessary by the Engineer. Drawings of the plan views and cross sections shall be developed from this survey by the Contractor and submitted to the Engineer for review. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum (NAVD88-Geoid03). Contractor shall submit survey plan to Engineer for approval prior to any survey activity.

2.5 Temporary Bench Marks

The Contractor shall also install additional 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 may 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.

2.6 Earthen Terrace Construction Staking

The staking for all earthen terraces within the project site shall be, at a minimum, staked at 100 foot intervals along the centerline of the earthen terrace and at the corners of the top of cut for the borrow areas.

2.7 Magnetometer Survey

A magnetometer survey shall be performed and accepted prior to excavation, to verify pipeline locations and depths and other underwater obstructions. At a minimum, magnetometer track lines should be run along the centerline alignment of each earthen terrace fill area and borrow area location. The Contractor shall also perform a magnetometer survey along all proposed construction ingress and egress routes within the construction site, and the proposed path of the construction equipment throughout the period of construction. Details of the Magnetometer Survey shall be included in the Preconstruction survey to be approved by the Engineer prior to construction activities.

2.8 Access Corridor

As shown in the Plans on sheet 4, the access corridor begins at LA23, and continues down West Ravenna Road to the Plaquemines Parish back levee - STA 0+00 to STA 112+00. From the back levee the corridor continues down the previously constructed corridor for BA-39 - STA 112+00 to STA 123+40. The corridor then runs south along the O&G canal indicated on the Plans - STA 123+40 to 166+93. The access corridor is not a constant width, instead the Contractor shall adhere strictly to the following limits:

West Ravenna Road

West Ravenna Road shall be used minimally for equipment mobilization and demobilization and daily site access for personnel and/or equipment maintenance. The road is frequently used by construction equipment traveling to and from a borrow pit entrance located along the road. The Contractor shall use caution when using this portion of the access corridor to avoid collisions with this equipment. The Contractor shall stay within the limits of the road.

BA-39 Access Corridor

The BA-39 permanent access corridor is the portion of the BA-164 terracing access corridor from the back levee to the O&G canal. The Contractor shall stay strictly within the limits of the corridor such as to not damage the marsh areas which exist on either side of the corridor. The BA-39 corridor is 60 feet in width as shown on Sheet 8 of the Plans. The only location the Contractor shall be permitted outside of the corridor is the delineated staging area, see Plans for coordinates. The access corridor shall be monitored by surveying as per below. Any damage to this access corridor shall be restored by the Contractor.

O&G Canal

The final section of the access corridor is the O&G Canal depicted on the Plans. The Contractor shall stay within the water bottom of the O&G Canal, and at no time shall operate equipment on the natural and man-made ridges on either side of the O&G Canal. Any damage to the ridges on either side of the O&G Canal shall be repaired by the Contractor.

If the Contractor utilizes the access corridor between the Plaquemines Parish back levee and the O&G Canal, which was built for the previously constructed BA-39 project, the corridor shall be surveyed before construction begins and after construction has been completed. The pre-construction survey of the corridor between the levee and the O&G Canal shall be conducted prior to mobilizing equipment on the road. The corridor shall be restored to these pre-construction conditions once all construction equipment has been demobilized from the site. See paragraph below for Access Corridor survey details.

The access corridor between the Plaquemines Parish back levee and the O&G canal shall be surveyed along the centerline with points every 100 feet and cross-section transects shall be taken every 500 feet from the levee to the O&G canal; cross-section transects shall have point spacing of 10 feet. These transects shall be included within the pre-construction survey.

2.9 Staging Area

The staging area is located along the access corridor between the back levee and the O&G canal adjacent to and north of the access corridor. This area is shown on Sheet 8 of the Plans with coordinates listed on Sheet 9. The use of this area shall not impede on the existing use of the road.

2.10 Pipeline Locations

All pipelines located within the project site shall be probed for depth and their locations marked with buoys or poles every 250 feet prior to excavation for the duration of the Work. No excavation may take place within one-hundred fifty feet (150') of any pipeline. A Shell representative shall be present when equipment is to cross the 20" Shell crude oil pipeline.

The only corridor to be used to cross the pipeline shall be the Shell access road unless otherwise directed by the Shell representative. For all construction activities over a pipeline, including movement of equipment, the Contractor shall coordinate with the pipeline company through the contacts provided in SP-14 of these specifications.

2.11 Process Survey

The process surveys will include profile transects along the centerline of the earthen terrace fill area and the borrow area, and cross-sections at the eastern and western end crests of the earthen terrace fill areas as well as at the approximate center of the terrace. The profile sections (aligned east-west) along the centerline shall extend 25 feet beyond the toe of the fill on each side for the earthen terrace and 25 feet beyond the top of the cut on each side for the borrow area. The north-south aligned cross-sections shall extend at least 50 feet north of the northern-most earthen terrace top of cut and at least 50 feet to the south of the southern-most borrow area toe of fill, on a per transect basis. The east-west aligned crosssections shall extend at least 50 feet west of the western-most toe of fill or top of cut and at least 50 feet east of the eastern-most toe of fill or top of cut, on a per transect basis. This survey layout is shown on Sheet 7 of the plans. This survey shall be used for acceptance and payment of the earthen terraces and to make modifications or adjustments as deemed necessary by the Engineer. Drawings of the plan views and cross sections and calculations of linear footage quantities shall be developed from this survey by the Contractor and submitted to the Engineer prior to acceptance and payment. The earthen terraces will be paid per linear foot with acceptance of the earthen terrace being constructed to lines and grades per the plans. All bathymetric surveys must be corrected for tidal fluctuations and wave action to the referenced datum (NAVD88-geoid03).

The process surveys shall include survey points a minimum of every 25 feet and at major points of inflection or grade change. Major points of inflection include the toe of fill and the borrow area top of cut. The elevations and coordinates shall be recorded and used to create plan views and cross sections of the earthen terraces to ensure that the earthen terraces have been constructed to the dimensions shown on the Plans and as per TS-3.

2.12 As-Built Surveys

As-Built survey will be required for this project. The Contractor shall submit a compilation of all process surveys that have been accepted by the Engineer. This deliverable will be considered the As-Built survey. Final payment will not be received until the As-Built survey and Work have been accepted by the Engineer.

A survey of the access corridor between the Plaquemines Parish back levee and the O&G canal shall be performed after demobilization of all equipment from the project site and road. This survey shall establish that the road has been restored to original conditions. If the road is not repaired to original conditions the Contractor shall pay all monies necessary to reestablish road to pre-construction conditions to the satisfaction or the Engineer.

2.13 Deliverables

The Pre-Construction, Process, 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 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, and supporting calculations shall be submitted to the Engineer for review immediately after they are completed in order to receive acceptance and payment. One hard copy and one digital copy shall be provided in AutoCAD.

The As-Built Survey and linear footage 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 discs with digital copies provided in AutoCAD. The survey shall incorporate all field changes, change orders, and quantities of materials placed. 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 shall contain the following information:

- 2.13.1 Point number;
- 2.13.2 Northing (NAD 83 U.S. ft.);
- 2.13.3 Easting (NAD 83 U.S. ft.);
- 2.13.4 Elevation of the top of soil (NAVD 88-geoid03 ft.);
- 2.13.5 Description.

2.14 Measurement and Payment

Payment for Surveys shall be made at contract lump sum price for Bid Item No. 3, "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. Forty percent (40%) of the lump sum cost will be paid following the completion of the Pre-construction surveys. Forty percent (40%) of the lump sum cost will be paid following the completion of the all Process Surveys. The remaining twenty percent (20%) of the lump sum cost will be upon acceptance of the Post-Construction Survey deliverable.

TS-3 EARTHEN Terraces

3.1 Scope

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

be maintained by the Contractor until the terraces have been completed and accepted for payment in accordance with the Plans and Specifications.

3.2 Construction

The boundaries of the earthen terraces are depicted on the Plans. The earthen terraces shall be constructed using in-situ fill material to the lines, grades, and elevations specified in the Plans to the greatest extent possible, as directed by the Engineer. The earthen terrace creation borrow areas shall be excavated to within the minimum and maximum lines and grades specified in the Plans.

3.3 Materials

The material utilized for the construction of the terraces shall meet the Engineer's approval. If unsuitable material is found within the borrow areas the material shall be disposed of at an appropriate offsite location. Examples of unsuitable material include but are not limited to tree trunks, other large vegetative debris, stone, and trash. If any material is questionable, the Contractor shall submit a Request for Information (RFI) to the Engineer for a decision. The geotechnical data report is provided in Appendix J.

3.4 Equipment

The Contractor shall construct the Earthen Terraces using equipment conducive to the efficient and accurate construction of the Earthen Terraces such that the project is completed within the allowable construction period of 180 days.

3.5 Access

All equipment for earthen terrace construction shall access the project site via the access corridor from LA23, along West Ravenna Road, over the Plaquemines Parish back levee, along the previously constructed corridor to the O&G canal, then south down the O&G canal to the project site. The access corridor between the Plaquemines Parish back levee and the O&G canal shall be restored to pre-project conditions following completion of construction and prior to demobilization and final payment.

Access to the internal areas shall be through open water to the greatest extent possible. Proposed access routes for equipment used to facilitate the construction of the earthen terraces 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. The Contractor shall be responsible for all landrights associated with any other means to access the project site. Any access crossing a pipeline shall be coordinated with the pipeline company contact information provided in SP-14.

3.6 Tolerance

Construction of the earthen terrace shall be as close to the elevations and areas shown on the drawings as possible, with a maximum crest vertical tolerance of plus one-half of one foot (+0.5') above the earthen terrace target construction elevation. The earthen terrace crown target construction elevation is +2.5 feet NAVD 88-Geoid03. The earthen terrace borrow area has a maximum cut depth of -10 feet NAVD 88-Geoid03.

3.7 Acceptance

Earthen terraces with elevations below the **minimum elevation of +2.5 feet NAVD88-Geoid03** will not be accepted. Additional fill must be placed into these areas and resurveyed before acceptance will be considered. Any sediment placed above the earthen terrace fill **maximum elevation of +3.0 feet NAVD88-geoid03** may be subject to removal and re-surveyed by the Contractor if required by the Engineer at no additional cost to the Owner.

3.8 Measurement and Payment

Payment for the earthen terraces will be made at the contract unit price per linear foot, measured to the nearest foot, for Bid Item No. 2 "Terracing/Mechanical Dredging". This unit price shall include the construction of the earthen terrace to the lines and grades as shown on the Plans. Price and payment shall constitute full compensation for furnishing all labor, materials, and equipment for construction and maintenance during construction of performing all Work as specified herein.

END OF PART III - TECHNICAL SPECIFICATIONS

APPENDIX A

DAVIS BACON ACT PREVAILING WAGE DETERMINATIONS

General Decision Number: LA160011 01/08/2016 LA11

Superseded General Decision Number: LA20150011

State: Louisiana

Construction Type: Heavy Dredging

Counties: Louisiana Statewide.

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

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

Modification Number Publication Date 0 01/08/2016

* SULA1994-001 04/01/1994

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

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

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

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

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

Union Rate Identifiers

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

005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

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

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey

for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

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

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

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

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

Wage and Hour Administrator U.S. Department of Labor

200 Constitution Avenue, N.W. Washington, DC 20210

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

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

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

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

END OF GENERAL DECISION

APPENDIX B

CLARIFICATION, CHANGE ORDERS, AND ACCEPTANCE

INTERPRETATION OR CLARIFICATION BY ENGINEER FORM

Date
Date

CHANGE ORDER NO. ___

		a, Coastal Protec	tion and Restoration Authori	ity
CONTRACTOR: PROJECT: BAYOU DU FILE NO:		T III – EARTHI	EN TERRACES (BA-164)	
PURCHASE ORDER NO: ENGINEER: CPRA AND MOFFATT & NICHOL			_	
The following changes are here	eby proposed to be	e made to the Co	ntract Documents:	
Description: See attached sumr Attachments (list documents su	•	:		
Change in Contr	act Price		Change in Contract Time	
Original Contract Price	\$	Original Co	ntract Time (calendar days)	
Net Increase (Decrease) from previous Change Orders			(Decrease) from previous ers (days)	
Contract Price prior to this Chan Order	ge	(calendar da		
Net Increase (Decrease) of this Change Order		Net Increase Order (days)	(Decrease) of this Change	
Contract Price with this Change Order		Contract Tir (calendar da	ne with this Change Order ys)	
RECOMMENDED:	RECOMM	ENDED:	ACCEPTED:	
By:Engineer	_ By:CPRA C	onstruction Manager	By:Contractor	
Date:	Date:		Date:	

BAYOU DUPONT III – EARTHEN TERRACES (BA-164)

FILE NO:	, PURCHASE ORDER NO:	
SUMMAR	RV OF CHANGE ORDER NO	

ITEM	DESCRIPTION	UNIT	ORIGINAL	ADJUSTED	UNIT	AMOUNT	AMOUNT
NO.			QUANTITY	QUANTITY	PRICE	OVERRUN	UNDERRUN
Total Amo	unt Overrun						
Total Amount Underrun							
Net Increase (Decrease) of this Change Order					\$		

JUSTIFICATION:

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

♦ NOT FOR RECORDATION PURPOSES ◆

RECOMMENDATION OF ACCEPTANCE

TO:	Coastal Protection and Restoration Authorit 450 Laurel Street, Suite 501 Baton Rouge, LA 70801	y FROM:	
			Design Firm Name and Address
DATE:			
PROJE	CT NAME & NUMBER:		
SITE C	ODE: STATE ID:		CFMS:
CONTR	RACTOR:		
ORIGIN	NAL CONTRACT AMOUNT: \$		
	CONTRACT AMOUNT: \$		
DATE	OF ACCEPTANCE:		
CONTR	RACT DATE OF COMPLETION:		
NUMB	ER OF DAYS (OVERRUN) (UNDER	RUN) (As of A	Acceptance Date)
LIQUII	DATED DAMAGES PER DAY STIPU	JLATED IN C	ONTRACT \$
VALUE	E OF PUNCH LIST		\$
			(Attach punch list)
			Q' 1
			Signed: DESIGNER
FOR U	SE OF PROJECT MANAGER:		
			Signed:
			PROJECT MANAGER

APPENDIX C

LANDOWNERS, UTILITY OPERATOR, AND PIPELINE COMPANY CONTACT INFORMATION AND LANDRIGHTS MEMORANDUM

Plaquemines Parish Recording Page

Dorothy M Lundin Clerk of Court PO Box 40 Belle Chasse, LA 70037 (504) 297-5180

Received From: GCR & ASSOCIATES, INC. ATTN: MONA NOSARI 2021 LAKESHORE DR., SUITE 500 NEW ORLEANS, LA 70122

First VENDOR

RIVER REST LLC

First VENDEE

LOUISIANA STATE

Index Type: Conveyance

Type of Document: Servitude

Recording Pages :

File Number: 2012-00002443

Book: 1271

Page: 1

Recorded Information

I hereby certify that the attached document was filed for registry and recorded in the Clerk of Court's office for

Plaquemines Parish, Louisiana

On (Recorded Date): 06/08/2012

At (Recorded Time): 12:01:39PM

Doc ID - 002978320008

CLERK OF COURTS ILAC DOROTHY M LUNDIN . .

Parish of Plaquemines
I certify that this is a true copy of the attached document that was filed for registry and Recorded 06/08/2012 at 12:01:39
Recorded in Book 1271 Page 1
File Number 2012-00007443

"STHE HELLS

Return To:

PERPETUAL EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

COASTAL PROTECTION AND RESTORATION PURPOSES

JEFFERSON AND PLAQUEMINES PARISHES, LOUISIANA

STATE OF LOUISIANA

PARISHES OF JEFFERSON AND PLAQUEMINES

THIS AGREEMENT, made and entered into this 21 day of may, 2013 by and between: RIVER REST L.L.C., a Louisiana Limited Liability Company, with the business address of 1800 Carol Sue Ave., Gretna, LA 70056, herein represented by Mike Jeansonne, hereinafter called the "GRANTOR", as owner of the below described property; and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The OFFICE OF COASTAL PROTECTION AND RESTORATION ("OCPR"), as authorized and directed by the policy of the Coastal Protection and Restoration Authority ("CPRA"), herein represented by and appearing through the Executive Director of OCPR, Jerome Zeringue, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 450 Laurel Street, Suite 1200, Baton Rouge, Louisiana, 70804, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, et seq., as amended by Act 523 of the 2009 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as "STATE".

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S lands resulting from coastal protection and restoration projects by the STATE, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE the perpetual rights-of-way, servitudes, and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over GRANTOR'S property interest, for integrated coastal protection purposes as defined in La. R.S. 49.214.2(10) as part of the State of Louisiana's Master Plan for Coastal Protection and Restoration (hereinafter called "Project"), located in, on, and over GRANTOR'S property interest. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called the "Lands"), to-wit:

All of Sections 46, 47, 50, 51, 52, and 53, the S/2 and the S/2 of the N/2 of Section 48, the S/2 and the S/2 of the N/2 of Section 49, T16S – R24E, Jefferson Parish; a portion of Section 16, T16S – R24E, West of the non-federal levee, Section 41, T17S – R24E, Plaquemines Parish, Louisiana, as shown on Exhibit A.

GRANTOR hereby warrants that GRANTOR understands the Project and accepts any and all impacts to said Lands resulting from construction and implementation of the Project. The rights granted by GRANTOR pursuant to this Agreement in, on and over the Lands are specific to coastal protection purposes with respect to the Project as it exists and is defined as of the date of this Agreement, and the STATE shall have no rights pursuant to this Agreement in, on, and over the Lands with respect to any changes to the general scope of or specific implementation plans for the Project after the date of this Agreement that are not approved by GRANTOR in writing; however, such approval shall not be unreasonably withheld.

- I. This Agreement grants the rights to enter said Lands, (further identified on Exhibit A, attached hereto), to perform construction, operation, modification, monitoring, maintenance, and such other activities described on Exhibit B, (attached hereto), necessary to complete the Project.
- II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.
- III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold harmless GRANTOR against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys' fees. However, nothing herein shall be construed as

indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as an additional insured on any policies by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTOR has provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by 2010 Acts No. 734. This clause shall survive the term of this Agreement.

- IV. STATE shall be responsible for repair or replacement in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, such repairs shall to the extent practical be completed within one hundred and twenty (120) days after completion of STATE's activities that resulted in the damage and such repairs to be to that condition which existed immediately prior to STATE's activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.
- V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures from the Coastal Protection and Restoration Fund or expenditures of federal funds. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in, or over private property solely on the basis of the expenditure of funds from the Coastal Protection and Restoration Fund or expenditure of federal funds, that the STATE shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney's fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the Lands.
- VI. Subject to the rights-of-way, servitude and easements afforded the STATE herein, it is understood and agreed that GRANTOR shall retain the limits of its title and all property rights in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures or appurtenances constructed hereunder pursuant to the Project on the Lands shall be adjusted, removed, and/or interfered with by GRANTOR, or anyone holding rights by, through or under GRANTOR.
- Subject to the above, in its exercise of the rights herein granted, STATE agrees not to unreasonably interfere with (a) oil, gas, sulphur or other mineral operations, (b) farming, grazing, and other agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping operations on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, and other agricultural operations, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the coastal protection activities of STATE with respect to the Project. Without limiting the foregoing, STATE agrees to place no structures and/or appurtenances on the Lands in any manner without the express written consent of GRANTOR, which may not be unreasonably withheld by GRANTOR. Provided further that no structures and/or appurtenances specifically authorized by GRANTOR and constructed hereunder pursuant to the Project on the Lands shall be adjusted, removed and/or unreasonably interfered with by GRANTOR.
- VIII. GRANTOR does not warrant title, and STATE acknowledges the existence of various rights of third parties in and to the Lands. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.
- IX. STATE may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.

- This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect in perpetuity until the Project is terminated or abandoned, unless sooner released by STATE.
- This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, XI. successors in interest, transferees and assigns.
- This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgement pages from other counterparts.
- XIII. This Agreement does not confer or waive any rights except as provided herein.

WITNESSES:

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

GRANTOR; RIVER REST, L.L.C.

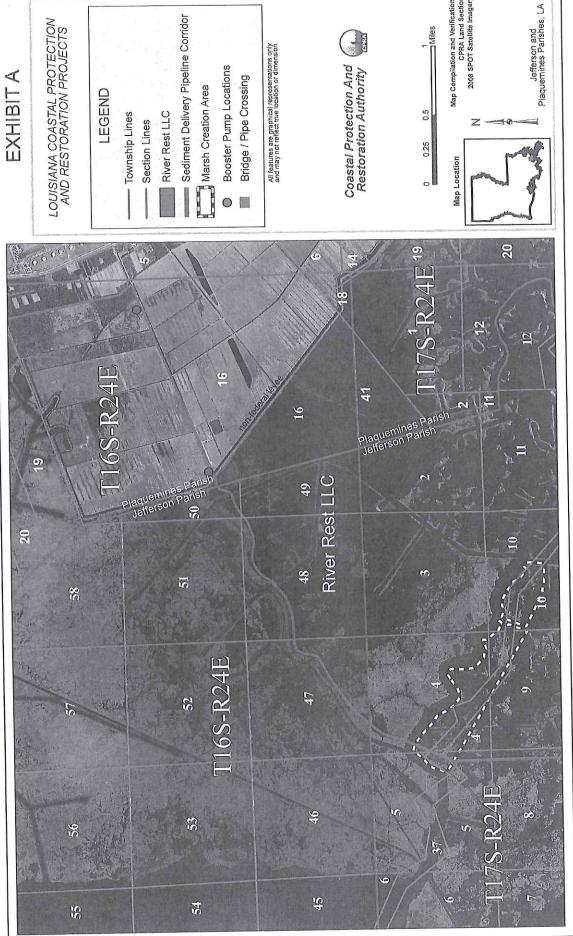
	Print: Tanny Gagliano Print: Jan. Le mercatante	Print: Mike Jeansonne Title: Membrane Date: 5-29-12
	IN WITNESS WHEREOF, GRANTOR has undersigned witnesses on the date below:	executed this Agreement in the presence of the
	WITNESSES:	OFFICE OF COASTAL PROTECTION AND RESOTRATION
_	Patricia Pouch	spores las
	Print: PATRICIA PORCI+	Print: Jerome Zeringue
	Cuid, DAniso	Title: Executive Director
	Conda D'Amico	Date: June 4 2012
	Print: Chan Deprette	

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CB BOOK, 3297 PAGE 323

CORPORATE ACKNOWLEDGEMENT

said Parish/County and State aforesaid, on personally came and appeared MIKE Shown, who, being by me duly sworn, declared Member of River Rest L.L.C., that as such duly Roard of Directors of said corporation, be/she significantly and the said corporation.	ty, duly commissioned and qualified in and for this 2 p day of 20/2, to me and acknowledged to me, Notary, that he/she is a y authorized officer, by and with authority of the gned, and executed the foregoing instrument, as the tion, for and on behalf of said corporation, and for
Notary or Bar # 03803 4 My commission expires: _ d d d (SEAL)	int: Brian P. Cook
ACKNOW STATE OF LOUISIANA	LEDGEMENT
PARISH OF EAST BATON ROUGE	
BEFORE ME, the undersigned authors said Parish and State aforesaid, on this and appeared Jerome Zeringue, to me known the Office of Coastal Protection and Restoration and Res	writy, duly commissioned and qualified in and for day of
Notary or Bar # LACSUS2	Print: CIPO De Print: NOTARY PUBLIC
My commission expires:	



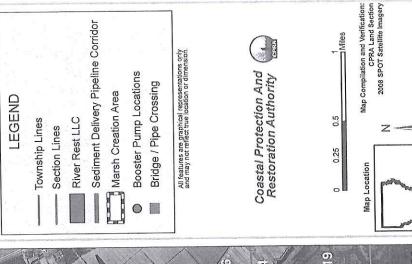


Exhibit B To RIVER REST L.L.C PERPETUAL EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

Subject to the terms and conditions set forth in the Agreement and attachments and exhibits thereto, STATE shall have the right to enter said Lands to perform the following activities all at the sole expense of the STATE for "integrated coastal protection" purposes in accordance with the STATE's comprehensive master coastal protection plan (La. R.S. 49:214.1 et seq.). and/or coastal wetlands restoration projects authorized by 16 U.S.C. 3951 et seq.:

- a. The right to deposit dredged sediment and/or fill material on, over and across said Lands by either natural or mechanical means, including the right to alter land and/or water contours and undertake management practices to enhance or extend the beneficial use of dredged or sediment deposition for wetland/marsh creation, restoration and enhancement;
- The right to plant or cause the growth of vegetation in, on, over and across said Lands, including the right to nourish, replenish and maintain said vegetation;
- The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands, as may be deemed necessary by STATE;
- d. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands and on other lands as may be owned by GRANTOR;
- The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;
- f. The right to construct and maintain and to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;
- g. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;
- h. The right to enter and traverse said Lands to access Project features located on adjacent lands;
- i. The right to make modifications to the above, but only insofar as changes pertain to materials for Project features and minor changes to Project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project.
- j. The right to construct, operate, maintain and monitor channel improvements works on, over and across said lands, including the right to enlarge, improve, deepen or realign existing channels, canals, ditches or other waterways;
- k. The right to construct and maintain fencing material to encourage the deposition of sand/sediment;
- The right to dredge a temporary floatation channel(s) for access and to build a containment dike(s) within portions of the Project area to retain deposited sediment;
- m. The right to construct (including the necessary excavation and/or filling) a sediment conveyance channel for the delivery (via dredge pipe) of sand and/or sediment.
- n. The right to borrow, excavate, grade, and remove soil, vegetation and associated materials from the said Lands;

- o. The right to plug, close or fill selected channels, canals, ditches, streams or waterbodies located on said Lands;
- p. The right to construct (including the necessary borrow areas), maintain and monitor overflow banks so as to preclude the exchange of channelized water on, over and across said Lands;
- q. The right to construct (including the necessary excavation and/or filling), operate, maintain and monitor water control structures including all appurtenances thereto, in, over and across the said Lands; and
- r. The rights to construct, operate, maintain and monitor structures or improvements to enhance the deposition of sediment upon said Lands.
- s. GRANTOR reserves the right to review, comment, and request changes to Project features, structures and appurtenances but only insofar as changes pertain to materials for Project features and changes to Project locations and only for so long as such changes do not interfere with the goals of the Project, provided such comments and requests are made in writing no later than 30 days after the Project is presented to GRANTOR for review, unless otherwise agreed by both parties. STATE agrees to consider in good faith any comment or requested change to the Project.
- t. For purposes of the indemnity provided by the STATE pursuant to Section III of the Agreement, the term "GRANTOR" shall include not only River Rest, L.L.C., but also all managers, members, agents and representatives (collectively the "Representatives") of the entity except for actions by such Representatives that are beyond the course and scope of their duties to and/or engagement with GRANTOR or for which such Representatives have engaged in intentional or wrongful misconduct. However, nothing herein shall be construed as indemnifying or holding Grantor or any third person not a party hereto harmless against the fault or negligence of Grantor's Representatives.
- u. Should work on said Lands be performed via contract, STATE shall ensure that all policies of insurance provided by each contractor and subcontractor pursuant to Section III of the Agreement are primary and non-contributory and shall name Grantor as an additional insured using ISO Commercial General Liability Endorsement Forms CG 20 37 07 04 and CG 20 10 07 04.

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CB BOOK 3308 PAGE 223

TEMPORARY EASEMENT, SERVITUDE AND RIGHT-OF-WAY AGREEMENT

MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE BA-43 EB BAYOU DUPONT MARSH AND RIDGE CREATION PROJECT BA-48

JEFFERSON PARISH, LOUISIANA

STATE OF LOUISIANA

PARISH OF JEFFERSON

THIS AGREEMENT, made and entered into this 20 day of December, 2012, by and between: THE LIVAUDAIS COMPANY, L.L.C., a Louisiana limited liability company, whose mailing address is 4626 East St. Bernard Hwy., Meraux, Louisiana 70075, herein represented by Philip Livaudais, R. Bruce Wallis and Oliver S. Delery, Jr., its Managers, hereinafter called "GRANTOR", as owner of the below described property; and

The STATE OF LOUISIANA herein represented by and appearing as follows through:

The COASTAL PROTECTION AND RESTORATION AUTHORITY ("CPRA"), as authorized and directed by the policy of the Coastal Protection and Restoration Authority Board ("CPRAB"), herein represented by and appearing through the Executive Director of CPRA, Jerome Zeringue, domiciled in East Baton Rouge Parish, Louisiana, with offices located at 450 Laurel Street, Suite 1200, Baton Rouge, Louisiana, 70804, and whose mailing address is P.O. Box 44027, Baton Rouge, Louisiana, 70804-4027, appearing pursuant to the provisions of La. R.S. 49:214.1, et seq., as amended by Act 523 of the 2009 Regular Session and as amended by Act 604 of the 2012 Regular Session of the Louisiana Legislature;

The above mentioned hereinafter collectively referred to as "STATE".

WITNESSETH: For and in consideration of the promises and undertakings by STATE to GRANTOR herein, and further for other good and valuable consideration, including the potential benefits to GRANTOR'S lands resulting from the hereinafter described Projects, the receipt and adequacy of which are hereby acknowledged, GRANTOR hereby grants unto STATE, its successors, assigns or transferees, the temporary rights-of-way, servitudes, and easements (hereinafter called "the Agreement"), together with the right to enter in, on, and over GRANTOR'S property interest, for integrated coastal protection purposes as defined in La. R.S. 49.214.2(10) as part of the Long Distance Sediment Delivery System Project BA-43 EB and Bayou Dupont Marsh And Ridge Creation Project BA-48 and/or State of Louisiana's Master Plan for Coastal Protection and Restoration (hereinafter called "the Project" whether one or more), located in, on, and over GRANTOR'S property interest. The Project will be publicly funded and shall be located on the following described property interest, including expressly, but not limited to, any interest in lands or water-covered lands which might be owned by GRANTOR (hereinafter called "said Lands"), to-wit:

The N/2 of the N/2 of Section 48, and the N/2 of the N/2 of Fractional Section 49, T16S-R24E, Jefferson Parish, State of Louisiana, and more particularly described and shown on Exhibit A attached hereto.

GRANTOR hereby warrants that GRANTOR understands the Project and accepts any and all impacts to said Lands resulting from construction and implementation of the Project.

I. This Agreement grants the rights to enter said Lands, (further identified on Exhibit A, attached hereto), to perform construction, operation, modification, monitoring, maintenance, and such other activities described on Exhibit B, (attached hereto), necessary to complete the Project.

- II. STATE agrees to give reasonable notice to GRANTOR prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.
- III. To the extent permitted by Louisiana law, STATE shall, indemnify, and hold harmless GRANTOR against and from all costs, expenses, claims, demands, penalties, suits, fines, and actions of any kind and nature arising from the Project and caused by the actions and fault of STATE or its agents, employees, contractors, successors, assigns and transferees, including any court costs and reasonable and actual litigation expenses and attorneys' fees. However, nothing herein shall be construed as indemnifying or holding GRANTOR or any third person not a party hereto harmless against its own fault or negligence or that of its agents, employees, contractors, successors, assigns and transferees. Should work on said Lands be performed via contract, STATE shall ensure that the contractor lists GRANTOR as additional insured on any policies carried by the contractor, including completed operations coverage. The STATE acknowledges, declares and stipulates that GRANTOR have provided this Agreement at no cost to the STATE under the provisions of La. R.S. 49:214.6.10 C, as amended by 2010 Acts No. 734. This clause shall survive the term of this agreement.
- IV. STATE shall be responsible for repair in like manner of any fences, bridges, roads, and other similar facilities and appurtenances located on said Lands which may be damaged or destroyed by STATE, or its designees while on said Lands, but such repair shall be to that condition which existed immediately prior to STATE's activities. STATE shall remove or dispose of all debris associated with construction, operation and maintenance of the Project.
- V. STATE acknowledges that La. R.S. 49:214.5.5 provides that no rights whatsoever shall be created in the public, whether such rights be in the nature of ownership, servitude or use, with respect to any private lands or waters utilized, enhanced, created, or otherwise affected by activities of any governmental agency, local, state, or federal, or any person contracting with same for the performance of any activities, funded in whole or in part, by expenditures from the Coastal Protection and Restoration Fund or expenditures of federal funds. The STATE further agrees that in the event legal proceedings are instituted by any person seeking recognition of a right of ownership, servitude, or use in, on, and over private property solely on the basis of the expenditure of funds from the Coastal Protection and Restoration Fund or expenditure of federal funds, that the State shall indemnify and hold harmless the owner of such property for any costs, expense, or loss related to such proceeding, including court costs and attorney's fees. To the extent permitted by La. R.S. 49:214.5.5, the servitude and right-of-way rights granted herein shall be considered real rights and covenants running with the land.
- VI. It is understood GRANTOR shall retain the limits of its title and all property rights (subject to the rights of STATE herein) in and to said Lands, and all minerals in, on and under said Lands are not affected in any way hereby. However, no structures and/or appurtenances constructed hereunder pursuant to the Project on said Lands shall be adjusted, removed and/or interfered with by GRANTOR, or anyone holding rights by, through or under GRANTOR.
- VII. Subject to the above, in its exercise of the rights herein granted, STATE agrees not to unreasonably interfere with (a) oil and gas operations, (b) agricultural operations, and (c) hunting, trapping and alligator egg operations, (d) fishing, crabbing, or shrimping, now occurring, or authorized to occur, on said Lands. STATE specifically acknowledges the continuing right of GRANTOR, its heirs, successors, assigns, transferees or lessees, to use, occupy and enjoy all of said Lands, for all purposes, in such manner at such times as they, or any of them, shall desire to use same, including, but without limitation, for the purpose of conducting oil, gas or other mineral operations on any of said Lands, for the exploration, discovery, production, storage, transportation and disposition of oil, gas, sulphur or other minerals, under oil, gas and mineral leases or otherwise, and for the purpose of farming, grazing, hunting and trapping fur-bearing animals, alligator egg operations, fishing, crabbing, or shrimping thereon, provided, however, that such use, occupation, and enjoyment shall not unreasonably interfere with the lawful activities of STATE pursuant to this Agreement.
- VIII. GRANTOR does not warrant title. GRANTOR specifically does not warrant or represent the correctness of any survey, or any of the plats attached hereto which purport to show the location of said Lands. If at any time any questions or litigation should arise as to the ownership of any part of the property covered hereby, or as to any boundary or limit of any part of the separate and various Lands covered by this Agreement, this Agreement shall not be construed to be, or permitted to serve as, evidence or as a basis of waiver of any legal rights against any party

hereto, or prevent any party hereto from establishing its ownership, or having the boundaries or limits of its property determined, in any lawful manner, anything herein contained to the contrary notwithstanding.

- IX. STATE may assign or transfer, in whole or in part, any or all of its rights hereunder, but only to the extent necessary to implement the purposes of the Project on the said Lands.
- X. This Agreement shall become effective upon the date of the signature of STATE, and shall remain in effect for a term of twenty-five (25) years unless sooner released by STATE.
- XI. This Agreement shall be binding upon, and inure to the benefit of, the parties hereto, their heirs, successors in interest, transferees and assigns.
- XII. This Agreement may be executed in any number of counterparts, each of which shall constitute an original document which shall be binding upon any of the parties executing same. To facilitate recordation of this agreement, the parties hereto agree that individual signature and acknowledgment pages from the various counterparts may be merged and combined with signature and acknowledgment pages from other counterparts.
- XIII. This Agreement does not confer or waive any rights except as provided herein.

[remainder of the page left intentionally blank]

IN WITNESS WHEREOF, GRANTOR has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:	GRANTOR: THE LIVAUDAIS COMPANY, L.L.C.
Shelley L. Ducote Print: Shelley L. Ducote Stephen P Bauen Print: Stephen P Baver	By: Manager Date December 20, 20/2
Print: Segnent Pare:	Date, 4
Diedul Miano Print: Dierdre R. Miano Anne Eicho	By: A. Show Wallis R. BRUCE WALLIS Title: Manager
Print: Anne Eichin	Date: Necember 7, 2012
Auson 7. Deleny Print: Susan F. Deleny	By: OLIVER S. DELERY, JR.
Must Jolly	Title: Manager
Print: War lotte Delevy	Date: December 16, 2012

STATE OF L	OUISIANA
PARISH OF _	Sernard

Print Name:

NOTARY PUBLIC

Notary or Bar# (05469 My commission expires: (Dath (SEAL) PAMELA A. ŘÍESS Notary Public State of Louisiana Notary ID. Number, 65469 St. Bernard, Parish

STATE OF LOUISIANA PARISH OF Olans

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this \(\left\) day of \(\text{Dec.} \), 20\(\left\), personally came and appeared OLIVER S. DELERY, JR., to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he is a Manager of the THE LIVAUDAIS COMPANY, L.L.C., that as such duly authorized representative, by and with authority of said entity, he signed, and executed the foregoing instrument, as the free and voluntary act and deed of said entity, for and on behalf of said entity, and for the object and purposes therein set forth.

Mycommissith expires:

STATE OF LOUISIANA PARISH OF _ OF PRANS

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this _____ day of _____ \(\text{LCM} \) \(\text{LOM} \) \(\text{LOM} \) \(\text{Personally came and appeared R. BRUCE WALLIS, to me known, who, being by me duly sworn, declared and acknowledged to me, Notary, that he is a Manager of the THE LIVAUDAIS COMPANY, L.L.C., that as such duly authorized representative, by and with authority of said entity, he signed, and executed the foregoing instrument, as the free and voluntary act and deed of said entity, for and on behalf of said entity, and for the object and purposes therein set forth.

Print Name: 💋

Michael D

Notary or Bar # 2056)
My commission expires: at death

MICHAEL D. HAROLD Notary Public, State of Louisiana LA Bar Roll No. 20563

My Commission is issued For Life.

IN WITNESS WHEREOF, STATE has executed this Agreement in the presence of the undersigned witnesses on the date below:

WITNESSES:	COASTAL PROTECTION AND RESTORATION AUTHORITY
I.muxan	By: frome fur
Print: Cauvan Pouvaiau	JEROME ZERINGUE Executive Director
Print: TOann D. Hicks	Date: 12/29/12

STATE OF LOUISIANA

PARISH OF EAST BATON ROUGE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for said Parish and State aforesaid, on this 2 day of 2012, personally came and appeared JEROME ZERINGUE me known, who declared that he is the EXECUTIVE DIRECTOR, of the COASTAL PROTECTION AND RESTORATION AUTHORITY, STATE OF LOUISIANA, that he executed the foregoing instrument on behalf of said State Agency and that the instrument was signed pursuant to the authority granted to him by said State Agency and that he acknowledged the instrument to be the free act and deed of said State Agency.

Print Name:

Notary or Bar # LADD A
My commission expires: WIPC
(SEAL)

OFFICIAL SEAL Clifton O. Bingham, Jr. BAR ROLL # 03052 STATE OF LOUISIANA My Commission is for Life

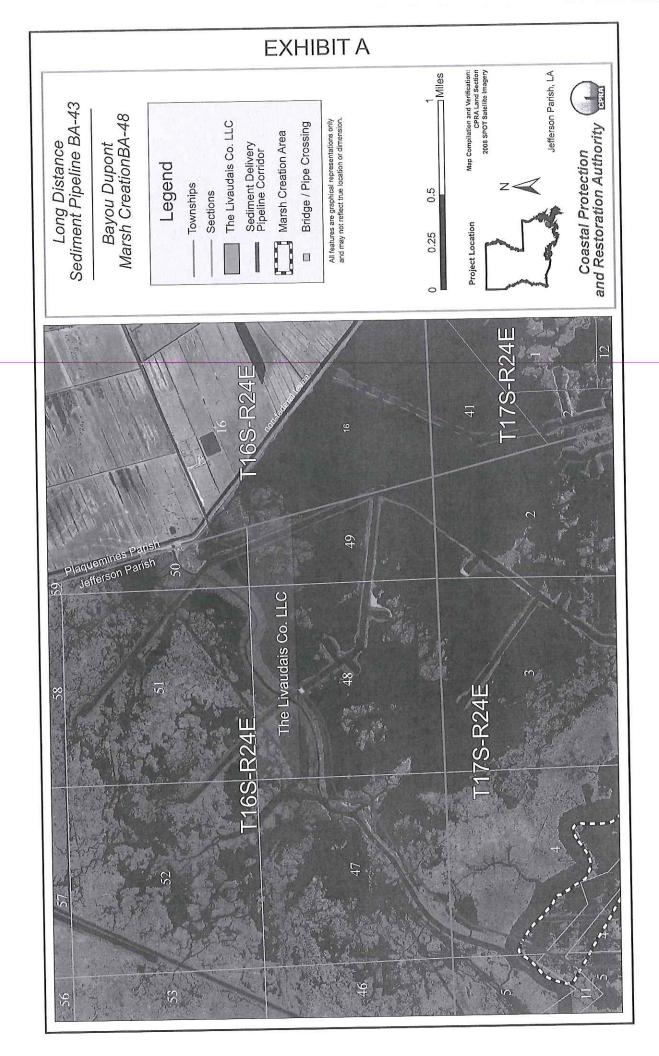


EXHIBIT B

4 , , ,

Attached to and made a part of that certain Temporary Easement, Servitude, and Right-of-Way Agreement by and between THE LIVAUDAIS COMPANY, L.L.C. and the COASTAL PROTECTION AND RESTORATION AUTHORITY dated December 20, 2012.

The Agreement includes the right to enter said Lands to perform the following activities for the purposes authorized by Federal (16 U.S.C. 3951 et seq) and State (R.S. 49:214.1 – 214.6.10) law at the sites or locations identified on the attached Exhibit A:

- a. The right to relocate, alter, replace or remove appropriate pipelines, utility lines, facilities or other structures in, on, under, and across said Lands, as may be deemed necessary by STATE.
- b. The right to construct, locate, maintain and service required monitoring devices and equipment on said Lands and on other lands as may be owned by GRANTOR;
- The right to post warning signs or notices on or near appropriate Project features on said Lands, as may be deemed necessary by STATE;
- d. The right to alter or remove structures and/or appurtenances constructed on said Lands by STATE pursuant to the Project;
- e. The right to enter said Lands for the purpose(s) of conducting surveys, inspections and investigations required by STATE to evaluate the effectiveness of the Project and Project features, including maintaining/improving wetland and/or restored land quantity and quality;
- f. The right to enter and traverse said Lands to access Project features located on adjacent Lands;
- g. The right to make modifications to the above, but only insofar as changes pertain to materials for Project features and minor changes to project feature locations, as may be deemed necessary by STATE to fully and properly implement and maintain the Project;
- h. The right to construct, operate, maintain and monitor channel improvements works on, over and across said Lands, including the right to enlarge, improve, deepen or realign existing channels, canals, ditches or other waterways;
- i. The right to construct and maintain fencing material to encourage the deposition of sand/sediment;
- j. The right to dredge a temporary floatation channel(s) for access and to build containment dike(s) within portions of the project area to retain deposited sediment;
- k. The right to construct (including the necessary excavation and/or filling) a sediment conveyance channel for the delivery (via dredge pipe) of sand and/or sediment.
- l. The right to plug, close or fill selected channels, canals, ditches, streams or waterbodies located on said Lands;
- m. The right to construct (including the necessary borrow areas), maintain and monitor overflow banks so as to preclude the exchange of channelized water on, over and across said Lands;
- n. The right to construct (including the necessary excavation and/or filling), operate, maintain and monitor water control structures including all appurtenances thereto, in, over and across the said Lands; and
- o. The right to construct, operate, maintain and monitor structures or improvements to enhance the deposition of sediment upon said Lands.



State of Louisiana

JOHN BEL EDWARDS GOVERNOR

April 21, 2016

Memorandum

То:	Devyani Kar, CPRA Project Manager
From:	Ben Barnes, CPRA Land Division
RE:	Landrights Completion Memo Bayou Dupont Sediment Delivery – Marsh Creation #3 (BA-164)
The CPRA I contracting or provided to you	Land Division has completed landrights necessary to proceed to construction n the above referenced project. The following agreements and information is being ou.
Servit Coast Pipeli Oil/G Memo CWP	Aude Agreement(s)Mineral Operations Agreement(s)Aude Amendment (Integrated tal Protection)Grant of Particular UseItal Protection)State Land Office Letter of No ObjectionInterpretation in the Notices of ConstructionAssignment of Rights to Federal SponsorItal Construction in the Notices of ConstructionLandrights Certification LetterInterpretation of ConstructionOther: Corp of Engineers ConsentInterpretation of ConstructionOther:
Please note the and/or for fut	the following information that will need to be included in the contract specifications ture monitoring, operations and maintenance site visits:
I. Landown	er Notification Requirements
	Contractor agrees to give reasonable notice to GRANTOR(s) prior to initiation of access to the said Lands for the purpose of implementing, constructing, operating, modifying, monitoring and maintaining the Project.

II. General Provisions

The Contractor shall add the landowners (River Rest, L.L.C., and The Livaudais Company, L.L.C.) as additional insureds. It is also agreed and understood that the Contractor will at all times indemnify and hold harmless all landowners from and against any and all claims, demands, causes of action, judgments, liabilities, and expense of every nature, including attorney's fees, by reason of personal

injury, death (including but not limited to injuries to and death of employees of the landowners and the Contractor's employees), or damage to property, (including environmental) which arises out of, results from, or is in any manner related to, directly or indirectly, any operations or acts hereunder, or to the exercise of your rights hereunder, or to your presence upon or use of the landowners' premises above referred to, or to the use or existence of your facilities on such premises. The indemnity provisions of this paragraph shall not apply if any such injury, death, damage, liability claim, or cause of action is caused by the negligence of the landowners, their employees, agents, or representatives.

III. Special Conditions in Agreements

- A. (River Rest, LLC) Should work on said Lands be performed via contract, STATE shall ensure that all policies of insurance provided by each contractor and subcontractor pursuant to Section III of the Agreement are primary and non-contributory and shall name Grantor as an additional insured using ISO Commercial General Liability Endorsement Forms CG 20 37 07 04 and CG 20 10 07 04.
- B. (River Rest, LLC) For purposes of the indemnity provided by the STATE pursuant to Section III of the Agreement, the term "GRANTOR" shall include not only GRANTOR, but also all managers, members, agents and representatives (collectively the "Representatives") of the entity except for actions by such Representatives that are beyond the course and scope of their duties to and/or engagement with GRANTOR or for which such Representatives have engaged in intentional or wrongful misconduct. However, nothing herein shall be construed as indemnifying or holding Grantor or any third person not a party hereto harmless against the fault or negligence of Grantor's Representatives.

IV. Additional Provisions

In addition to obligations of Contractor set forth in the contract documents: Contractor shall provide to the CPRA BA-164 Land Manager listed below within thirty (30) calendar days after the bid contract's notice to proceed is issued: certificate of insurance listing all landowners provided above as additional insured; and proof of delivery of project construction notification letters sent to all landowner(s) and pipeline owner(s)/operator(s). Contractor shall adhere to all applicable provisions, terms and conditions, restrictions, and the like in Easements, Servitudes and Right-of-Way Agreements between CPRA and the below-listed landowners within Appendix C of the contract documents.

Ben Barnes CPRA BA-164 Land Manager Benjamin.Barnes@la.gov

V. Pipeline Provisions

- A. The Contractor shall notify pipeline companies at least seventy-two (72) hours in advance of any construction Work. All pipelines located within 150 feet of the dike alignments, marsh fill areas, borrow area, excavation area, and sediment pipeline corridor shall be probed and their locations marked, prior to excavation and/or installation of the sediment pipeline, for the duration of construction activities. No excavation shall be permitted within 50 feet of any pipeline. It is the Contractor's responsibility to locate all pipelines for purposes of determining areas where excavation is not permitted.
- B. A shell representative shall be present when equipment is to cross the 20" shell pipeline. The only corridor to be used to cross the shell pipeline shall be the shell access road unless otherwise directed by the shell representative
- C. NOTE: Special care and extremely close coordination by the construction contractor with the pipeline companies will be crucial in order to avoid impacting the pipelines within or near the project areas to ensure that any lines in the area are identified and will not be impacted.
- D. The construction contractor will also need to contact Louisiana One Call at (800) 272-3020 at least five (5) business days prior to construction.

Landowners:

River Rest, L.L.C. Mike Jeansonne 3533 Lake Polourde Harvey, LA 70058

The Livaudais Company, L.L.C. Philip Livaudais 4628 East Saint Bernard Hwy Meraux, LA 70075

Pipeline Owner:

Shell Pipeline Company LP Pratik Bhakta 713-241-4660 pratik.bhakta@shell.com One Shell Plaza 910 Louisiana Street Houston, TX 77002

Ben Barnes, CPRA Land Division

APPENDIX D

OWNER OBTAINED CONSTRUCTION PERMITS



DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL MANAGEMENT

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

COASTAL USE PERMIT/CONSISTENCY DETERMINATION

C.U.P. No.: P20111445 (Amended)
C.O.E. No.: MVN- 2009- 1353- EFF

NAME: COASTAL PROTECTION AND RESTORATION AUTHORITY

c/o MOFFATT & NICHOL 301 MAIN ST., SUITE 800 BATON ROUGE, LA 70825

Attn: Paul Tschirky

LOCATION: Jefferson, Plaquemines Parishes, LA

Wills Point Anchorage South Borrow Area - MP 66.7; Alliance Anchorage Borrow Area - MP 64.3; Alliance South Borrow Area MP 60.7; POB/Reach 1 Pipeline Corridor: Lat. 29° 42′ 03.65″N / Long. -89° 59′ 01.44″W; POE/Reach 5 Pipeline Corridor: Lat. 29° 36′ 09.48″N / Long. -90° 04′ 16.78″W; Marsh Creation Area (Pt. 11): Lat. 29° 36′ 41.70″N / Long. -90° 03′ 47.24″W; Section 14, T15S-R25E & R24E; crosses LA

Hwy. 23 north of Alliance Refinery, LA.

DESCRIPTION: Proposed Mississippi River Long Distance Sediment Pipeline, State Project BA-43 EB. Project includes the

permitting of three potential borrow sources from the Mississippi River to a -90 elevation totaling +/- 270 acres (+/- 5,031,382 CY), a total of +/- 10.8 miles of a 60' - 80' wide permanent pipeline access corridor (+/- 6.6 miles previously permitted under C20060090/MVN-2008-0345-EFF), and the creation of +/- 256 acres and nourishment of 103 acres of emergent marsh and ridge habitat. Of the three borrow sources proposed with estimated losses in sediment due to transfer anticipated, a total of +/- 3,354,255 CY of sediment will be required to construct +/- 4.16 miles of the pipeline access corridor and to create/nourish the proposed

emergent marsh and ridge habitat with a final elevation of \pm -0.5. Also proposed is the dredging/backfilling of \pm -257,823 CY for the \pm -3.4 mile access channel from the south shore of the Pen to

Bayou Dupont, installation of four booster pumps (4,451 CY access dredging), the construction of containment dikes (+/- 46,365 CY of native fill), and placement of +/- 2,400 CY of crushed stone/gravel and

+/- 7,310 CY of topsoil for the various crossings proposed.

AMENDMENT 1: Addition of a 200' x 200' temporary construction staging area (shown on Sheet 13 of plats) to be utilized for

construction equipment and materials during the construction of the project. The staging area will be

returned to original condition after construction is completed.

This amended permit supersedes the original permit which was issued September 16, 2012.

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

- 1. Carry out, perform, and/or operate the use in accordance with the permit conditions, plans and specifications approved by the Department of Natural Resources.
- 2. Comply with any permit conditions imposed by the Department of Natural Resources.
- 3. Adjust, alter or remove any structure or other physical evidence of the permitted use if, in the opinion of the Department of Natural Resources, it proves to be beyond the scope of the use as approved or is abandoned.
- 4. Provide, if required by the Department of Natural Resources, an acceptable surety bond in an appropriate amount to ensure adjustment, alteration, or removal should the Department of Natural Resources determine it necessary.
- 5. Hold and save the State of Louisiana, the local government, the department, and their officers and employees harmless from any damage to persons or property which might result from the use, including the work, activity, or structure permitted.
- 6. Certify that the use has been completed in an acceptable and satisfactory manner and in accordance with the plans and specifications approved by the Department of Natural Resources. The Department of Natural Resources may, when appropriate, require such certification to be given by a registered professional engineer.
- 7. All terms of the permit shall be subject to all applicable federal and state laws and regulations.
- 8. This amended permit, or a copy thereof, shall be available for inspection at the site of work at all times during operations.
- 9. The applicant will notify the Office of Coastal Management of the date on which initiation of the permitted activity described under the "Coastal Use Description" began. The applicant shall notify the Office of Coastal Management by mailing the enclosed green initiation card on the date of initiation of the coastal use.
- 10. Unless specified elsewhere in this amended permit, this amended permit authorizes the initiation of the coastal use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on

Page: 2 of 5

C.U.P. No.: P20111445 (Amended)
C.O.E. No.: MVN- 2009- 1353- EFF



the original permit which was September 16, 2012. If the coastal use is not initiated within this two (2) year period, then this amended permit will expire and the applicant will be required to submit a new application. Initiation of the coastal use, for the purposes of this permit, means the actual physical beginning of the use of activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the coastal use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, the permittee must, in good faith, and with due diligence, reasonably progress toward completion of the project once the coastal use has been initiated.

11. The following special conditions must also be met in order for the use to meet the guidelines of the Coastal Resources Program:

- a. This amended permit does not convey any property rights, mineral rights, or exclusive privileges; nor does it authorize injury to property.
- b. Permittee shall, prior to commencement of the herein permitted activities, contact Rhonda Braud (phone: 225-342-4553, email: rhonda.braud@la.gov) to determine if a construction permit will be required from the local levee district.
- c. Permittee shall obtain a Water Quality Certification, should one be required, from the LA Department of Environmental Quality prior to initiation of any construction activities.
- d. All logs, stumps and other debris encountered during dredging activities shall be removed from the site during or immediately after the activity and disposed of in accordance with all applicable laws and regulations.
- e. No impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ½ mile of the proposed project.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the State of Louisiana. LNHP reports summarize the existing information known at the time of the request regarding the location in question. LNHP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time LNHP tracked species are encountered within the project area, please contact our biologist at 225-765-2643.

- f. Submerged sediment/dredge pipeline must be marked/lighted in accordance with U. S. Coast Guard regulations.
- g. Permitted activities shall not interfere with navigation and project operations shall be coordinated with the USCG prior to initiation of activities permitted under this authorization.
- h. The requirement for compensatory mitigation for impacts to marsh habitat resulting from the referenced project will be determined after one full growing season (March 1 to November 1) following the completion of the permitted activities. This assessment shall include both primary impacts and secondary impacts which may result from the permitted activities.

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

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C.U.P. No.: P20111445 (Amended)
C.O.E. No.: MVN- 2009- 1353- EFF



- i. Permittee shall notify OCM Field Scientist, Frank Cole, at 225-280-4064 or frank.cole@la.gov no later than ten (10) days prior to initiation and following completion of activities permitted under this authorization.
- j. Permittee shall provide to OCM within 30 days following project completion as-built drawings and/or plats that include the actual borrow sources utilized for the completion of the permitted activity and the entire dredged material placement area.
- k. All structures built under the authorization and conditions of this permit shall be removed from the site within 120 days of abandonment of the facilities for the herein permitted use, or when these structures fall into a state of disrepair such that they can no longer function as intended. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for such removal activities.
- I. That permittee shall insure that all sanitary sewage and/or related domestic wastes generated during the subject project activity and at the site, thereafter, as may become necessary shall receive the equivalent of secondary treatment (30 mg/l BOD5) with disinfection prior to discharge into any of the streams or adjacent waters of the area or, in the case of total containment, shall be disposed of in approved sewerage and sewage treatment facilities, as is required by the State Sanitary Code. Such opinion as may be served by those comments offered herein shall not be construed to suffice as any more formal approval(s) which may be required of possible sanitary details (i.e. provisions) scheduled to be associated with the subject activity. Such shall generally require that appropriate plans and specifications be submitted to the Department of Health and Hospitals for purpose of review and approval prior to any utilization of such provisions.
- m. The area where the project is located is all part of the aboriginal homelands of the Chitimacha Tribe of Louisiana. As such, large villages, burial sites, and sacred sites were in place in that entire area. If at any time during the course of the work, any traditional cultural properties are discovered, Permittee shall immediately contact Kimberly S. Walden (Cultural Director) or Melanie Aymond (Research Coordinator) at (337) 923-9923 or (337) 923-4395. Office hours are Monday through Thursday from 7:30 A.M. 5:00 P.M. and on Friday between 7:30 A.M. 11:30 A.M. If traditional cultural properties are discovered on the weekend or after business hours, the notification shall be made the next business morning.
- n. Permittee is subject to all applicable state laws related to damages which are demonstrated to have been caused by this action.
- o. Permittee shall allow representatives of the Office of Coastal Management or authorized agents to make periodic, unannounced inspections to assure the activity being performed is in accordance with the conditions of this permit.
- p. Permittee shall comply with all applicable state laws regarding the need to contact the Louisiana One Call (LOC) system (1-800-272-3020) to locate any buried cables and pipelines.
- q. This amended permit authorizes the initiation of the Coastal Use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on the original permit which was September 16, 2012. Initiation of the Coastal Use, for purposes of this amended permit, means the actual physical beginning of the use or activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the Coastal Use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, Permittee must, in good faith and with due diligence, reasonably progress toward completion of the project once the Coastal Use has been initiated. If the Coastal Use is not initiated within this two (2) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (Title 43:1.723.D.). Please note that a request for permit extension MUST be made no sooner than one hundred eighty (180) days and no later than sixty (60) days prior to the expiration of the permit.

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C.U.P. No.: P20111445 (Amended)
C.O.E. No.: MVN- 2009- 1353- EFF



The expiration date of this amended permit is five (5) years from the date of the signature of the Secretary or his designee on the original permit which was September 16, 2012.

Upon expiration of this amended permit, a new Coastal Use Permit will be required for completion of any unfinished or uncommenced work items and for any maintenance activities involving dredging or fill that may become necessary. Other types of maintenance activities may also require a new Coastal Use Permit.

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

I affix my signature and issue this amended permit this 30th day of June, 2014.

THE DEPARTMENT OF NATURAL RESOURCES

Karl L. Morgan, Administrator Office of Coastal Management

Karl L May

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

Attachments

Page: 5 of 5

C.U.P. No.: P20111445 (Amended)
C.O.E. No.: MVN- 2009- 1353- EFF



Final Plats:

1) P20111445 Final Plats 06/05/2014

cc: Martin Mayer, COE w/attachments Dave Butler, LDWF w/attachments Jessica Diez, OCM w/attachments Frank Cole, OCM/FI w/attachments Jefferson Parish w/attachments Plaquemines Parish w/attachments

COASTAL PROTECTION AND RESTORATION AUTHORITY w/attachments

TATES OF AUGUST

DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS P.O. BOX 60267 NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO ATTENTION OF
Operations Division
Eastern Evaluation Section

JUL 3 1 2014

SUBJECT: MVN-2009-1353-EPP

Coastal Protection & Restoration Authority of Louisiana & Louisiana Department of Transportation & Development c/o Moffat & Nichol 301 Main Street, Suite 800 Baton Rouge, Louisiana 70825

Gentlemen:

Revised drawings, enclosed in forty one sheets, furnished with your Department of the Army permit application dated June 5, 2014, to dredge to construct a sediment pipeline corridor and marsh restoration/nourishment area which will include a 200' x 200' temporary construction staging area within the permitted corridor, located within the Mississippi River, between 67 to 60 miles above Head of Passes, crossing and south of Highway 23, near Naomi, in Plaquemines and Jefferson Parishes, Louisiana, are approved and will be included in your plans for the work authorized by the Secretary of the Army in a permit dated February 19, 2013, from the District Engineer at New Orleans, Louisiana. These drawings shall supersede those authorized on February 19, 2013.

The time for completion of this work is extended to July 31, 2019.

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

The approval is subject to the following terms and conditions.

1. If the proposed project requires any additional work not expressly permitted herein, the permittee must apply for an amendment to this authorization.

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

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Martin S. Mayer Chief, Regulatory Branch

for

Richard L. Hansen

Colonel, US Army

District Commander

Enclosure

INDEX TO DRAWINGS

DESCRIPTION SHEET

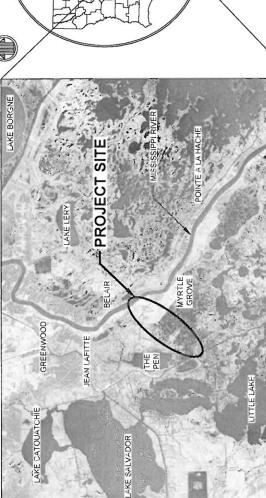
- GENERAL NOTES & DREDGING NOTES PROJECT LAYOUT
 - **BORROW AREAS**
- TYPICAL MISSISSIPPI RIVER PIPELINE SECTIONS
- WILLS POINT ANCHORAGE SOUTH BORROW WILLS POINT BORROW AREA LAYOUT
 - ALLIANCE ANCHORAGE BORROW AREA AREA TYPICAL SECTION LAYOUT
- ALLIANCE ANCHORAGE BORROW AREA TYPICAL SECTION
- ALLIANCE SOUTH BORROW AREA LAYOUT ALLIANCE SOUTH BORROW AREA TYPICAL
 - PIPELINE CORRIDOR LAYOUT (1 OF 4) SECTION
 - PIPELINE CORRIDOR LAYOUT (3 OF 4) PIPELINE CORRIDOR LAYOUT (4 OF 4) PIPELINE CORRIDOR LAYOUT (2 OF 4)
 - PIPELINE CORRIDOR DETAIL 'A'
- TYPICAL FILL SECTIONS (1 OF 4) PROJECT ALIGNMENT TABLES
- TYPICAL FILL SECTIONS (2 OF 4)
- TYPICAL FILL SECTIONS (3 OF 4)
 TYPICAL FILL SECTIONS (4 OF 4)
- TYPICAL ACCESS CHANNEL SECTIONS ACCESS CHANNEL LAYOUT
- BAYOU DUPONT BOOSTER PUMP SITE TYPICAL BAYOU DUPONT CROSSING DETAIL 23.23.25.25.25
 - DETAILS
- DREDGE PIPELINE CORRIDOR SECTION RAILROAD CROSSING DETAIL 26. 27. 28. 30.
 - HIGHWAY CROSSING DETAIL
- MISSISSIPPI RIVER LEVEE INSPECTION ROAD MISSISSIPPI RIVER LEVEE CROSSING DETAIL
 - CROSSING DETAIL
- DIRT ROAD CROSSING DETAIL CATTLE CROSSING DETAIL
- GRAVEL ROAD CROSSING DETAIL
- FLOOD PROTECTION LEVEE CROSSING DETAIL TEMPORARY SHOAL WARNING SIGN DETAILS
- LANDSIDE BOOSTER PUMP PLAN & 31. 33. 34. 36.
- FLOATING BOOSTER PUMP PLAN & ELEVATIONS 37.
- NEW BRIDGE/PIPE CROSSING DETAILS (1 OF 3) NEW BRIDGE/PIPE CROSSING DETAILS (2 OF 3) NEW BRIDGE/PIPE CROSSING DETAILS (3 OF 3) TEMPORARY MARINE ACCESS DOCK DETAILS 38. 39. 40. 41.

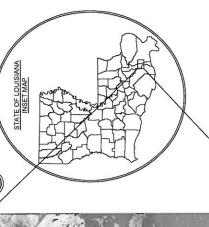
LONG DISTANCE SEDIMENT PIPELINE STATE PROJECT No. BA-43 EB **MISSISSIPPI RIVER**

JEFFERSON & PLA□UEMINES PARISHES, LOUISIANA

COASTAL PROTECTION AND RESTORATION AUTHORITY

STATE OF LOUISIANA



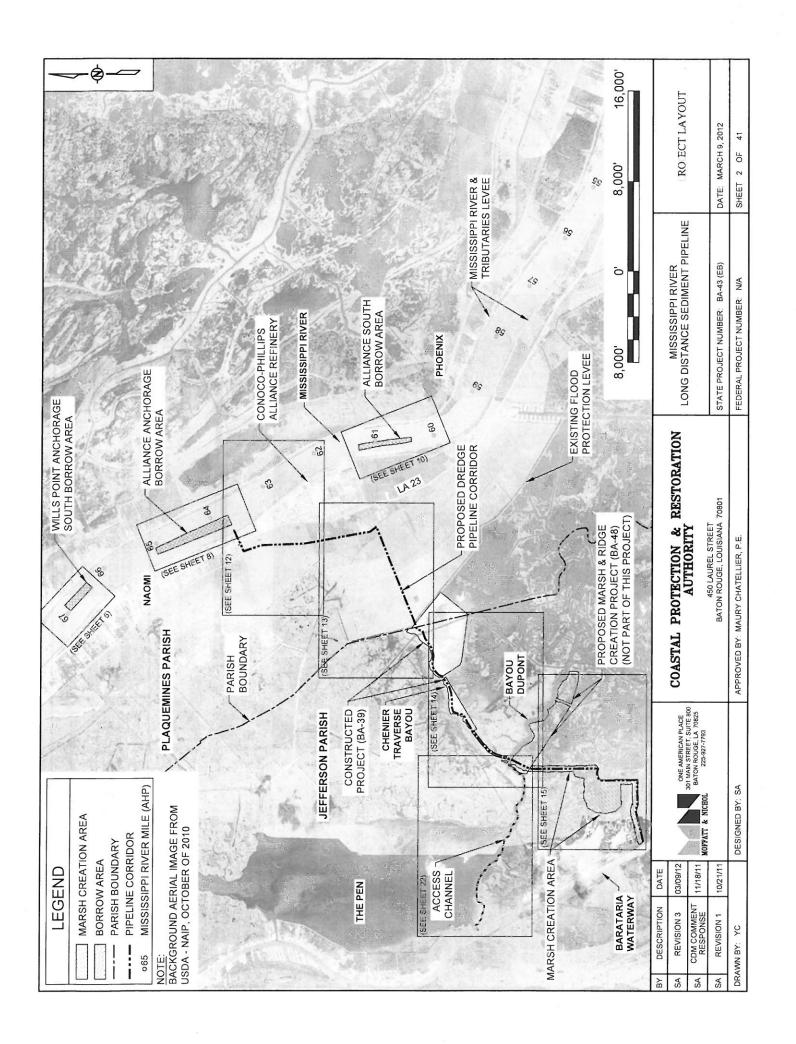




THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND NOT TO BE USED FOR CONSTRUCTION

APPROVED BY: MAURY CHATELLIER, P.E.	DESIGNED BY: SA		DRAWN BY: YC	DR
BATON ROUGE, LOUISIANA 70801		10/21/11	SA REVISION 1 10/21/11	SA
ASOLATBEL STREET	MOPPATT & NICHOL	11/18/11	CDM COMMENT 11/18/11 RESPONSE	SA
COASTAL PROTECTION & RESTORAT	ONE AMERICAN PLACE	03/09/12	SA REVISION 3	SA
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RESTORATION LONG DISTANCE SEDIMENT PIPELINE	STATE PROJECT NUMBER: BA-43 (EB)	AN GRANIN TORI CAG INCHES
VER INT PIPELINE		
TITLE HEET	DATE: MARCH 9, 2012	SHEET 1 OF 41



GENERAL NOTES:

- BACKGROUND AERIAL IMAGES FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER OF 2010.
- COORDINATES ARE NAD83, LOUISIANA STATE PLANE, SOUTHERN ONE, U.S. SURVEY FEET vi
- ALL ELEVATIONS ARE IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), U.S. SURVEY FEET. 3
- ALL RIVER DATUMS SHOWN BASED ON HISTORIC DATA FOR MISSISSIPPI RIVER AT ALLIANCE (01390) RIVER MILE 62.5. RECORDS AVAILABLE FROM APRIL 2, 1977 TO DATE. 4
- THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 500' OF ANY PIPELINE IN THE MISSISSIPPI RIVER OR WITHIN 50' OF ANY OTHER PIPELINE EXCEPT FOR NAOMI SIPHON PIPES. 5
- NO EXCAVATION SHALL BE PERMITTED WITHIN 25 FEET OF THE NAOMI SIPHON PIPES. THE EDGE OF THE DREDGE SLURRY PIPELINE SHALL BE PLACED A MINIMUM OF 25 FEET FROM THE EDGE OF THE NAOMI SIPHON 9
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS AT THE TIME OF CONSTRUCTION. ALL PIPELINES AND UNDERGROUND UTILITIES SHALL BE FIELD LOCATED AND MARKED. 7
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS 72 HOURS PRIOR TO ANY EXCAVATION. œ.
- NO CONSTRUCTION EDUIPMENT OR ACTIVITIES MAY OPERATE, TRANSIT, STAGE, OR STORE OUTSIDE OF THE CONSTRUCTION LIMITS. 6
- THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION. 10.

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15-20 FT 10-14 FT . 6-8 FT 2-4 FT 4-6 FT 4-6 FT .. 10 FT ESTIMATED RAGE OF FULLY-LOADED DRAFTS FOR VESSELS TO BE USED DURING CONSTRUCTION: BOOSTER PUMP BARGES, WORK BARGES, FUEL BARGES SMALL BARGE-MOUNTED CLAMSHELL OR EXCAVATOR WORK BOATS, TENDERS 2,000 HP TUGS 4,000 HP TUGS CREW BOATS

LARGE HYDRAULIC DREDGE.

DREDGING NOTES:

- THE CONTRACTOR WILL BE REDUIRED TO ANCHOR WITHIN THE DREDGE ANCHOR LIMITS SHOWN IN SHEETS 6, 8 AND 10.
- DREDGE ANCHOR LIMITS SHALL BE MARKED WITH BUOYS AS SHOWN IN SHEETS 6, 8 AND 10.

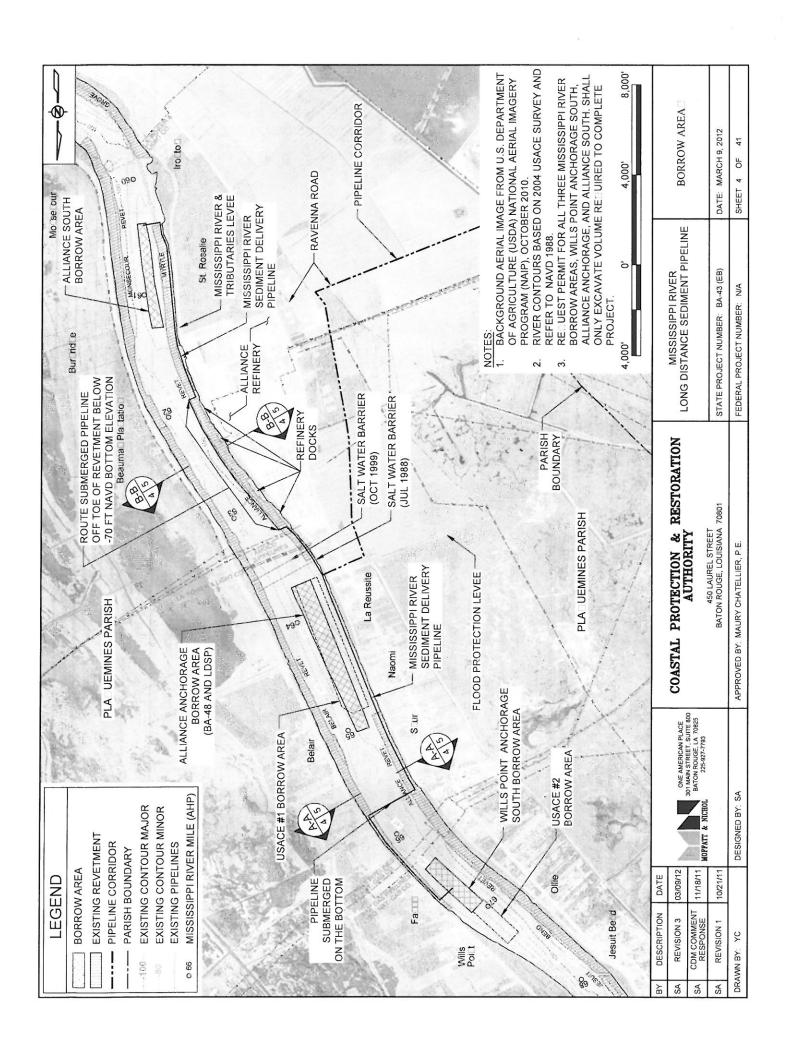
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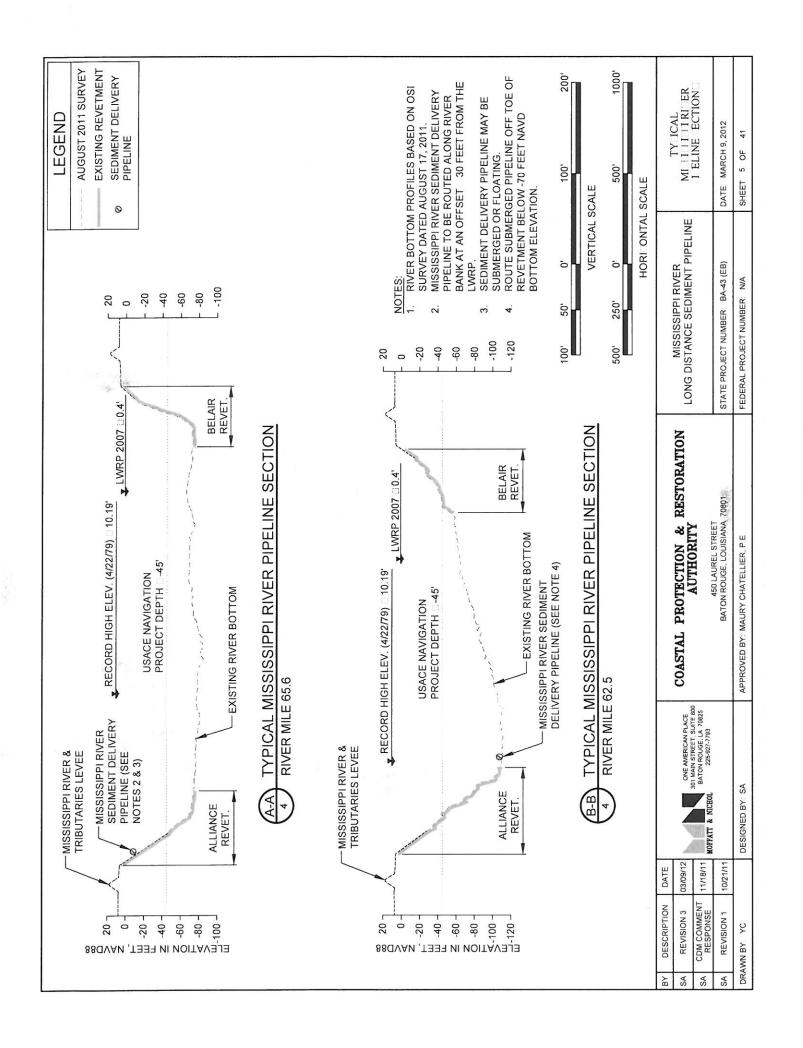
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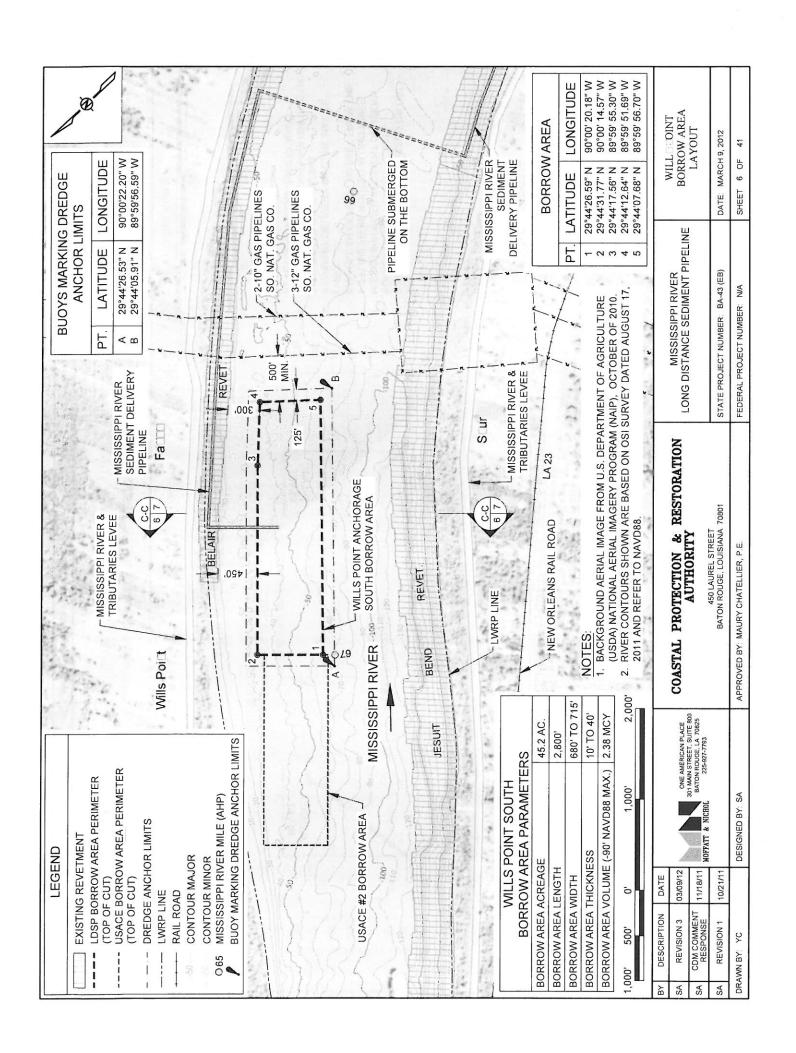
- DREDGING BEYOND THE BORROW AREA LIMITS SHOWN WILL BE NOT ALLOWED.
- DREDGING WILL BE ALLOWED TO A MAXIMUM DEPTH OF -90 FT NAVD88. 4.
- PLAN TO THE OWNER, THE USACE OPERATIONS DIVISION, AND MNSA DELINEATING THE LOCATION OF THE DREDGE, ATTENDANT PLANT, ANCHOR BUOYS, AND FLOATING PIPELINE AS PER THE OWNER SPECIFICATIONS. THE CONTRACTOR WILL BE RECUIRED TO SUBMIT A DAILY COMMUNICATION 5

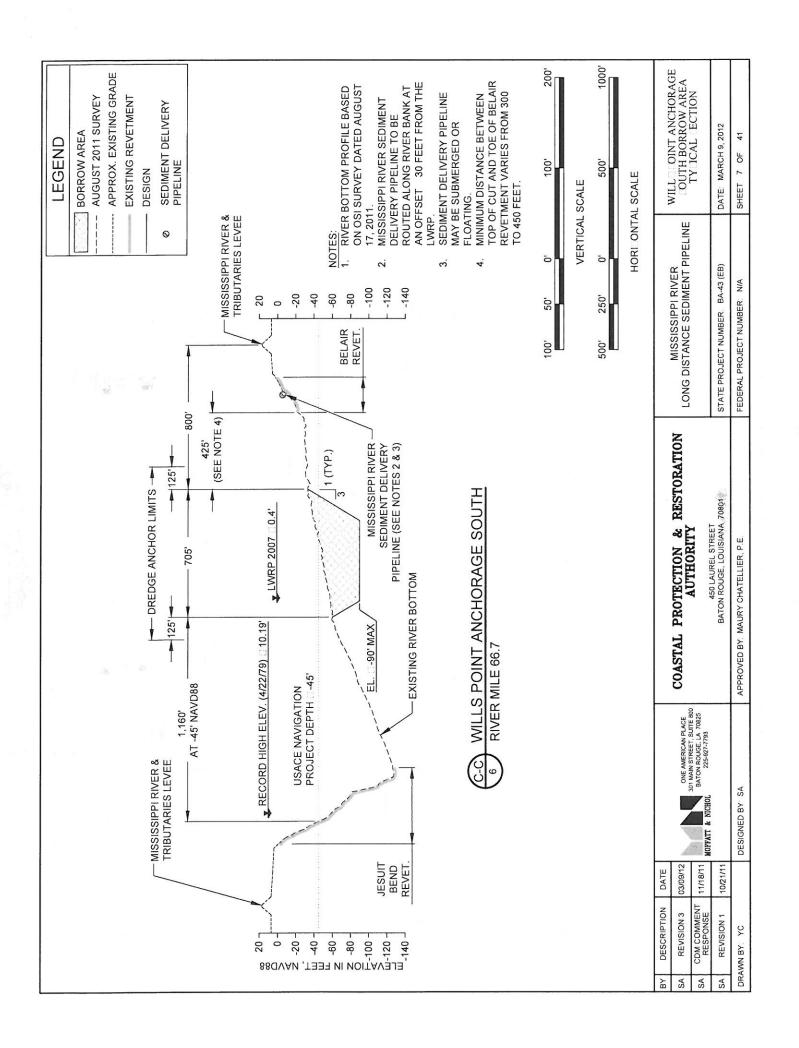
À S	DESCRIPTION DATE	DATE		COASTAL PROTECTION & RESTORATION	MISSISSIPPI RIVER	GENERAL REDGING
5		21 160100	301 MAIN STREET SHITE BOD	ATTHORITY	LONG DISTANCE SEDIMENT PIPELINE	NOTE
SA	CDM COMMENT RESPONSE	11/18/11	BATON ROUGE, LA 70825 WOFRATT & MICHOL 225-927-7793			
SA	REVISION 1	10/21/11		ASOLAUREL STREET BATON ROUGE, LOUISIANA 70901	STATE PROJECT NUMBER: BA-43 (EB)	DATE: MARCH 9, 2012
I R	DRAWN BY YC		DESIGNED BY SA	APPROVED BY. MAURY CHATELLIER, P.E.	FEDERAL PROJECT NUMBER: N/A	SHEET 3 OF 41
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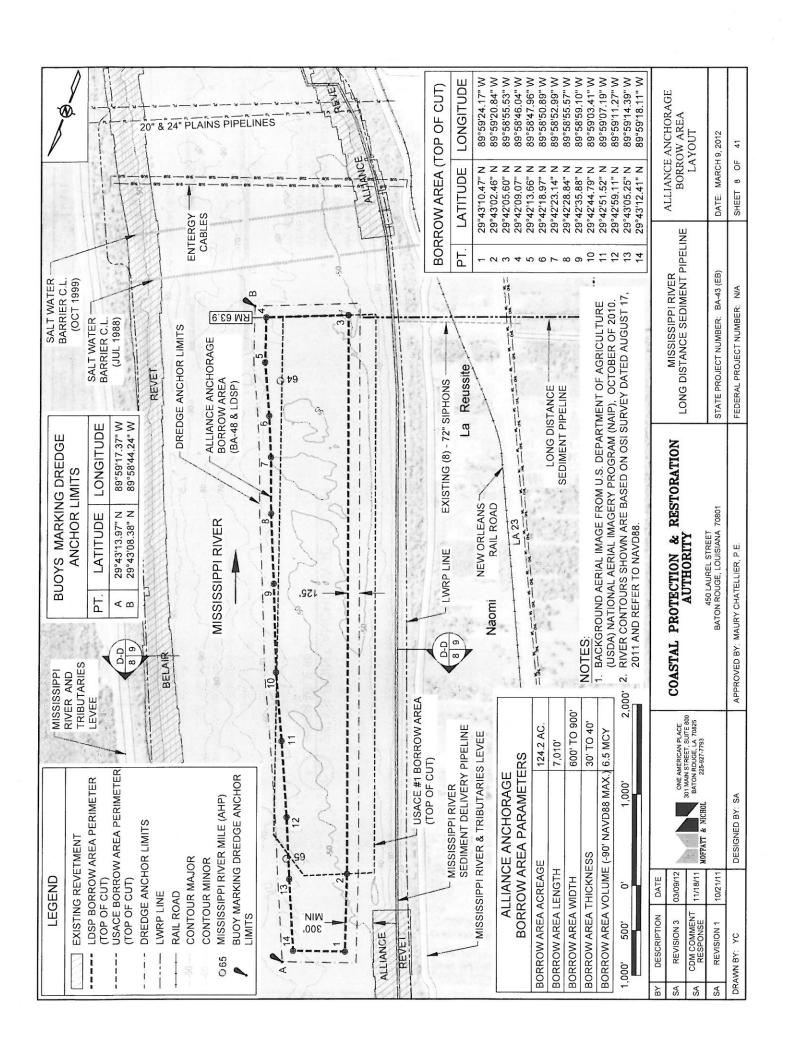
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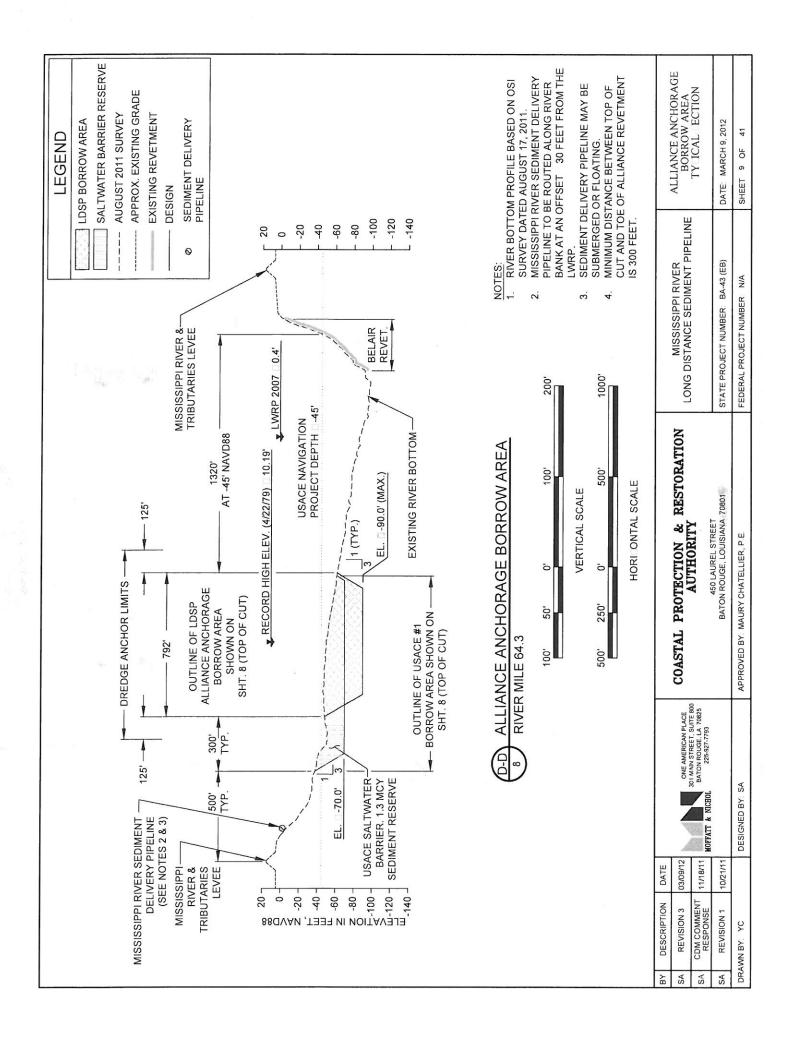


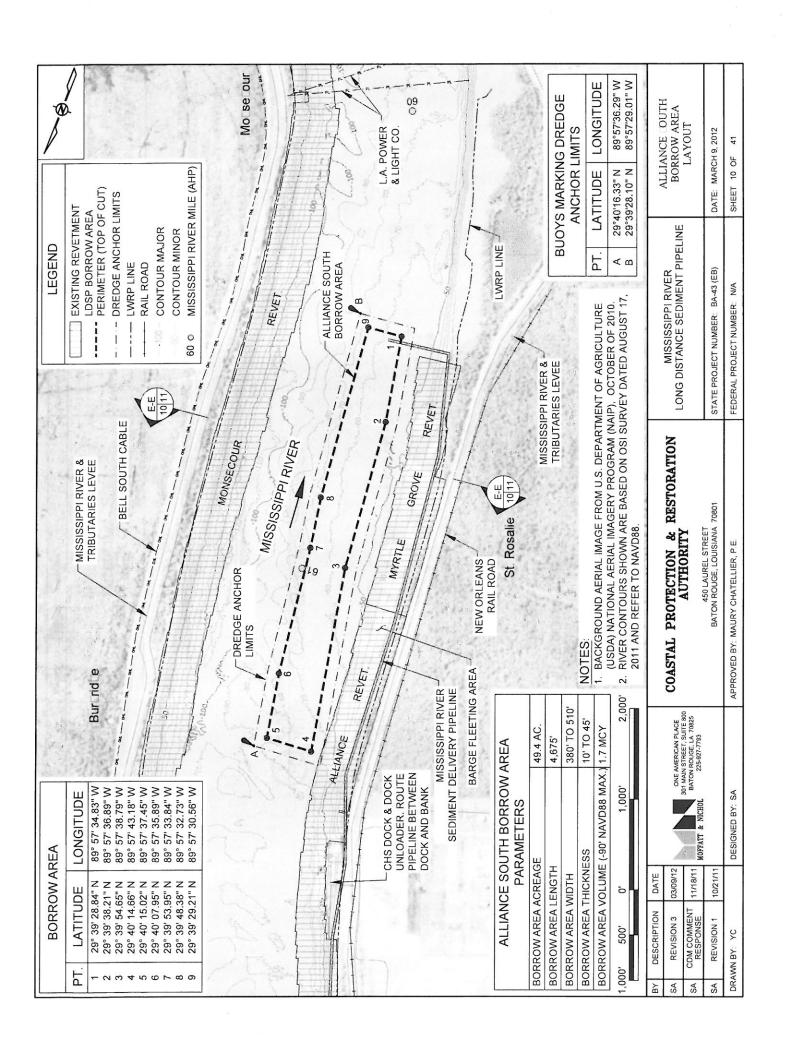


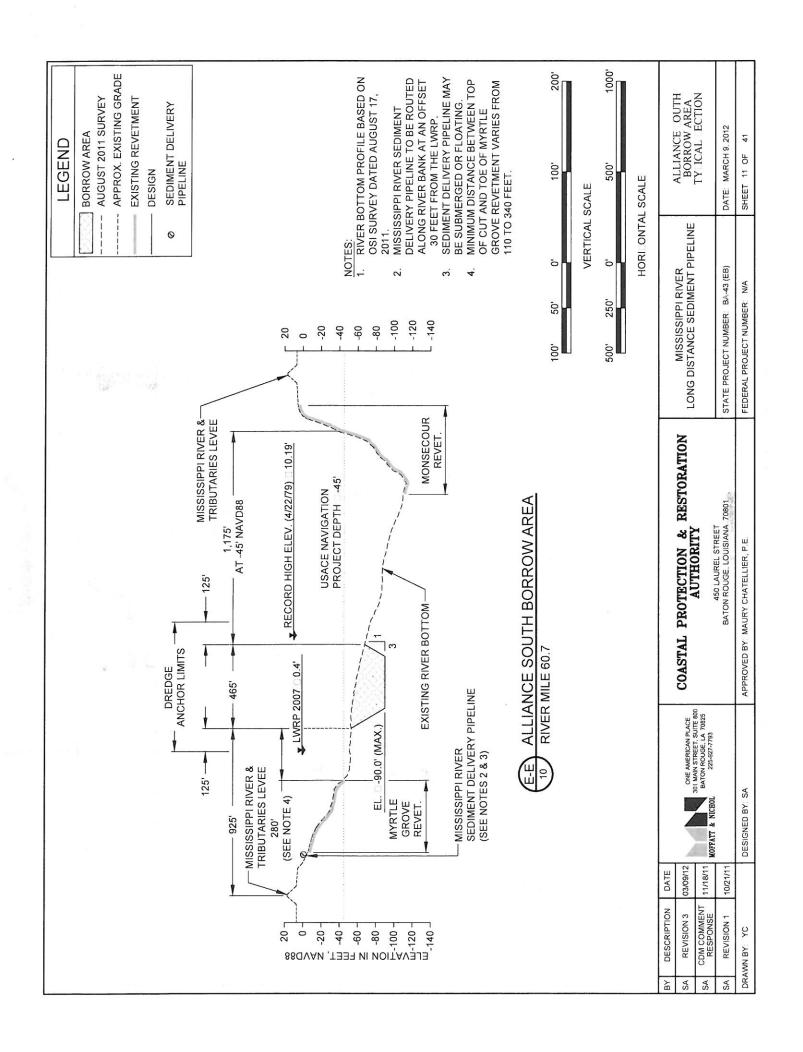


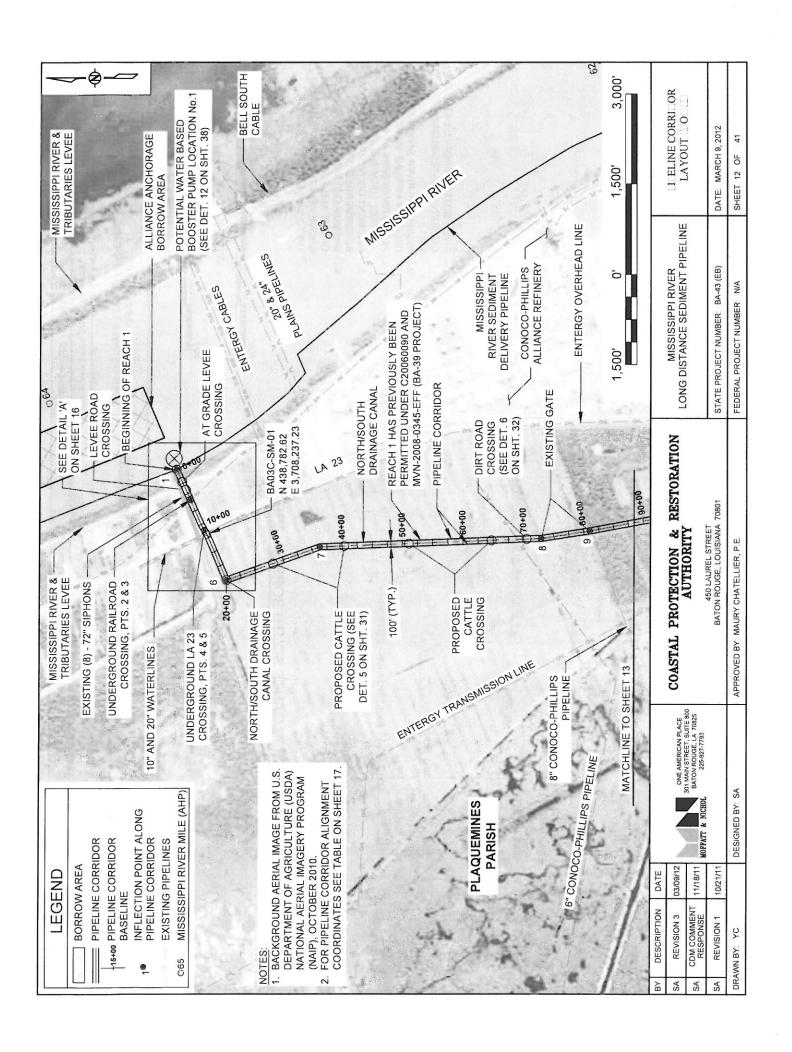


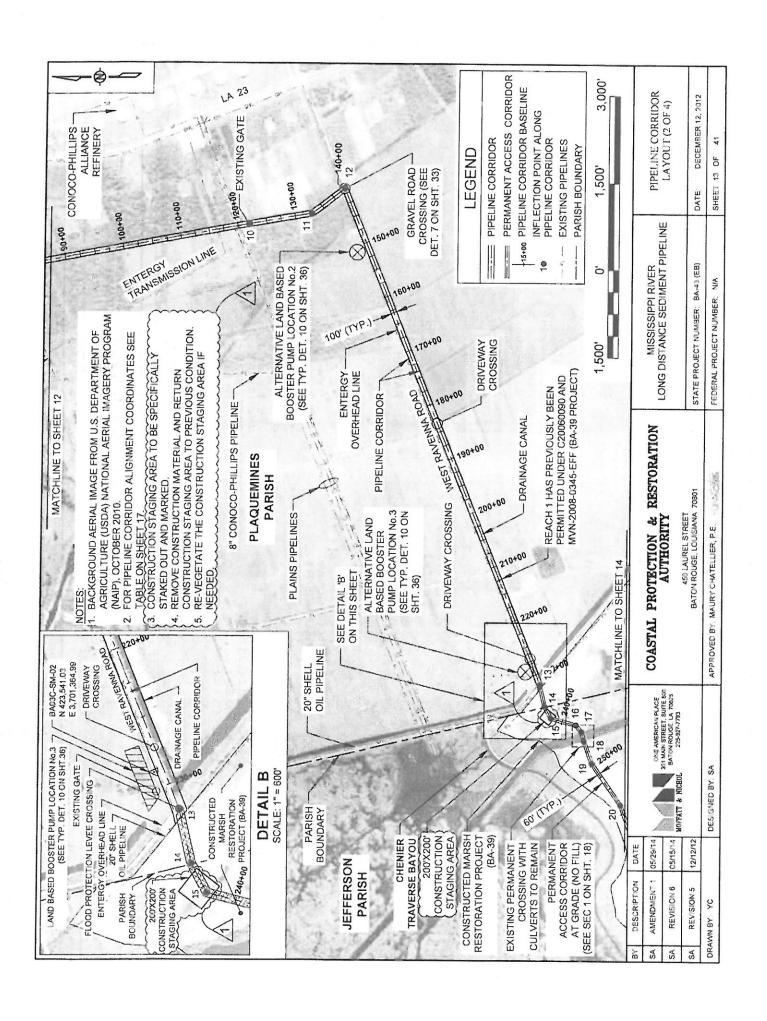


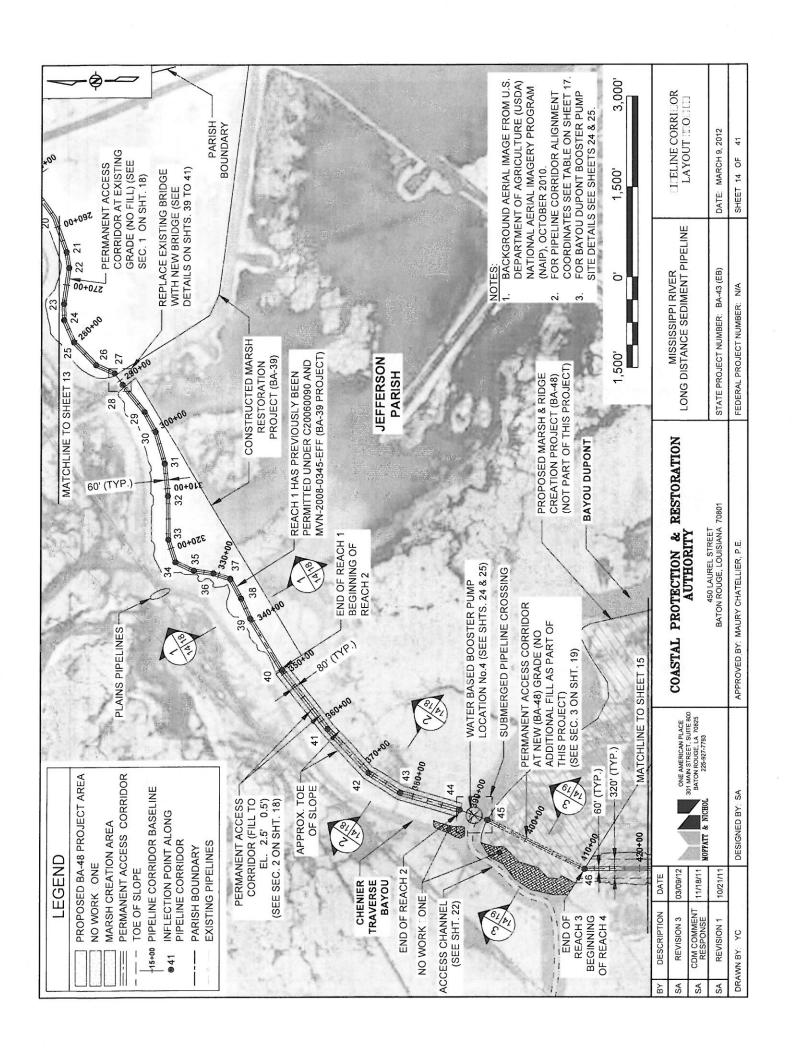


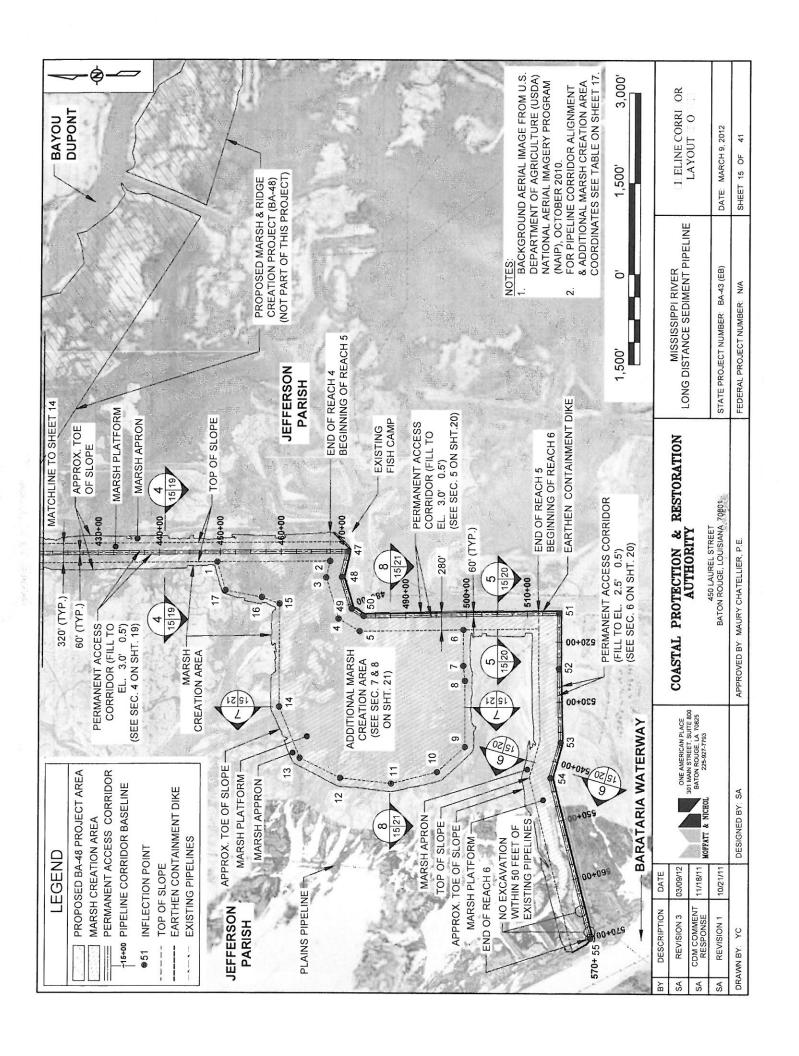


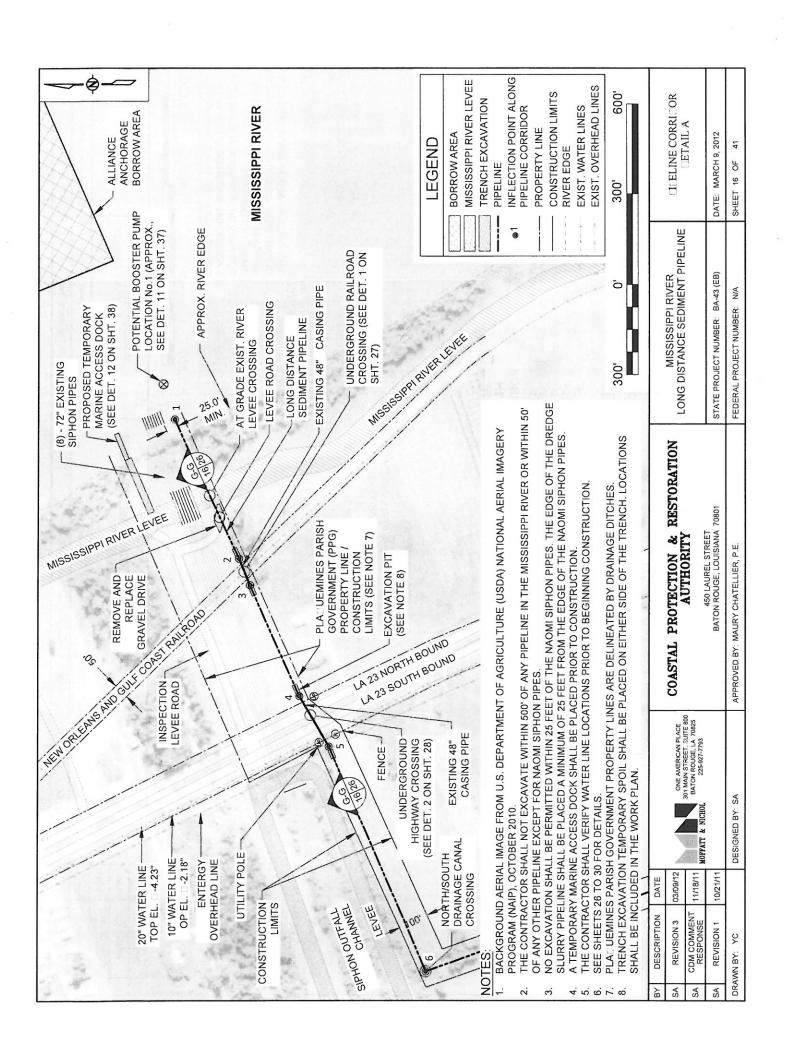












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E CORRIDOR ALIGNMENT	LONGITUDE	59,	59	80° 50' 11' W	59' 13 82"	59' 22 27"	59' 16.32"	89° 59' 15.22" W	59,	59	59' 04.03"	28	90° 00' 36.31" W	00' 40.32	00' 44.18"	00' 45.51"	00' 47.36"	00' 51.73"	00' 59.89"		90° 01' 09.43" W	01, 10, 13	01' 23.40"	01' 27.77"	01' 29.37"	01'31.56"	01' 36.77"	90° 01' 40.53" W	90 01 46.47 W	02, 00 71"	02	02' 06.67"	02' 07.20"	02' 08.26"	90° 02' 11.97" W	07.01 20	02' 36.65"	02' 45.01"	02' 48.83"	90° 02' 52.14" W	90 - 02 54.05" W
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15	29° 36' 59.65" N	90° 03' 13.33" W
16	29° 37' 02.51" N	90° 03' 12.08" W
17	29° 37' 08.41" N	90° 03' 10.74" W

BOOSTER PUMP LOCATIONS PROBABLE PROPOSED

LONGITUDE	89° 59' 00.12" W	89° 59' 11.71" W	90° 00' 33.79" W	90° 02' 53.14" W
LATITUDE	29° 42' 04.01" N	29° 39' 58.03" N	29° 39' 29.57" N	29° 38' 05.92" N
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LONGITUDE	PT.	LATITUDE	LONGITUDE
05' 43.76" W	46	29° 37' 53.05" N	90° 03' 12.51" W
05' 39.23" W	47	29° 37' 53.63" N	90° 03' 10.48" W
05' 38.05" W	48	29° 37' 54.31" N	03,
	49	29° 37' 56.11" N	03' 08.75"
05' 35.59" W	20	29° 37' 57.50" N	03' 08.22"
05' 34.21" W	21	29° 37' 59.11" N	03' 06.86"
	52	29° 38' 00.30" N	90° 03' 05.45" W
05' 28.75" W	53	29° 38' 00.92" N	03' 04.47"
05' 22.82" W	24	29° 38' 02.81" N	90° 03' 02.54" W
	22	29° 38' 04.04" N	03' 01.49"
	26	29° 38' 04.97" N	03' 00.88"
	24	29° 38' 06.05" N	02' 59.77"
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COASTAL PROTECTION & RESTORATION AUTHORITY

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ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-927-7793	9	

APPROVED BY: MAURY CHATELLIER, P.E.

SA

DESIGNED BY

MOFFATT & NICHOL

11/18/11 03/09/12 DATE

CDM COMMENT RESPONSE

DESCRIPTION REVISION 3

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10/21/11

REVISION 1

YC

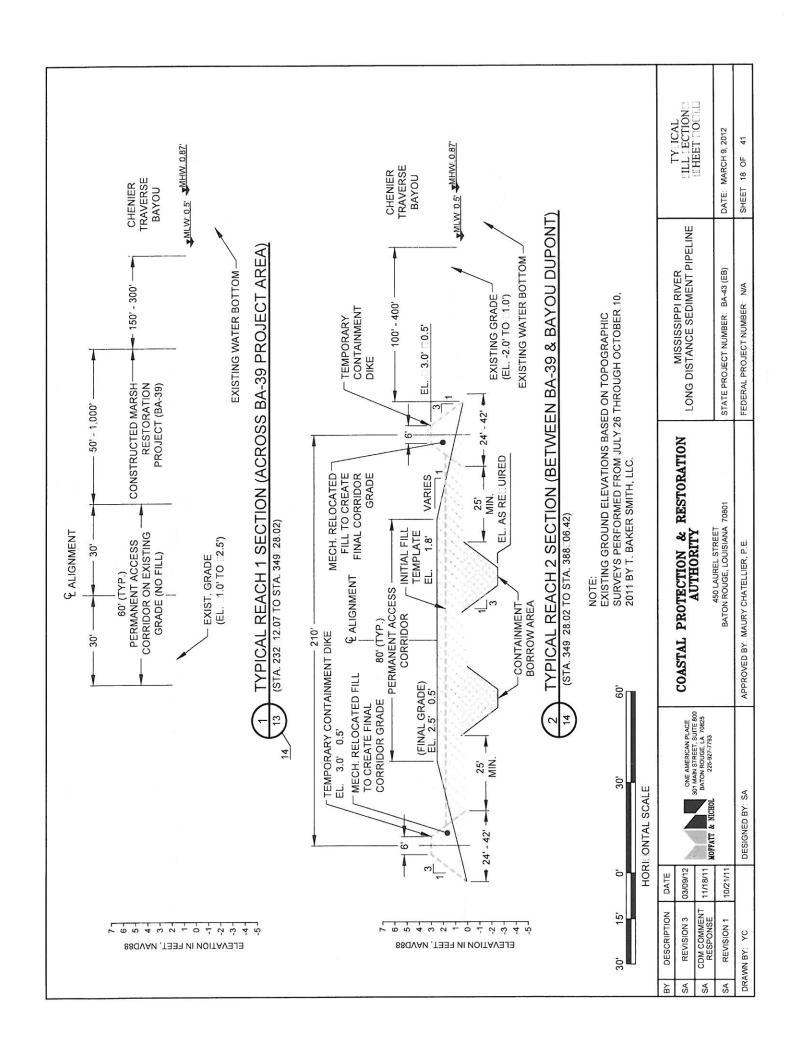
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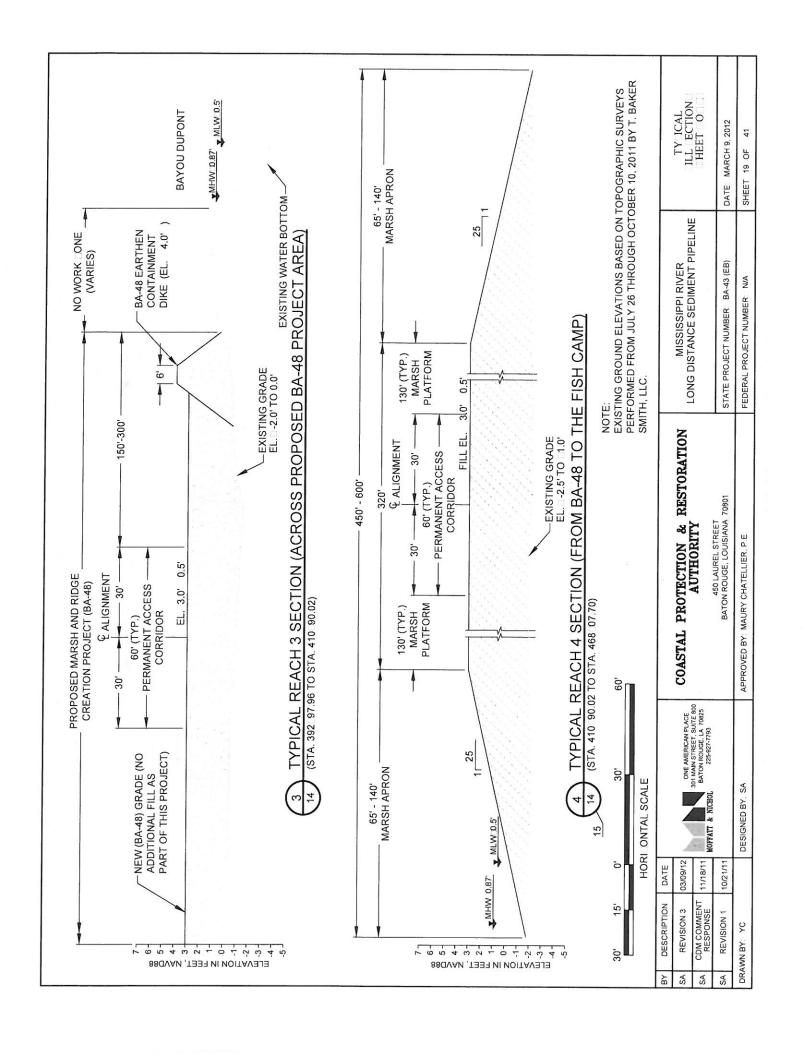
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	FEDERAL PROJECT NUMBER: N/A	SHEET 17 OF 41

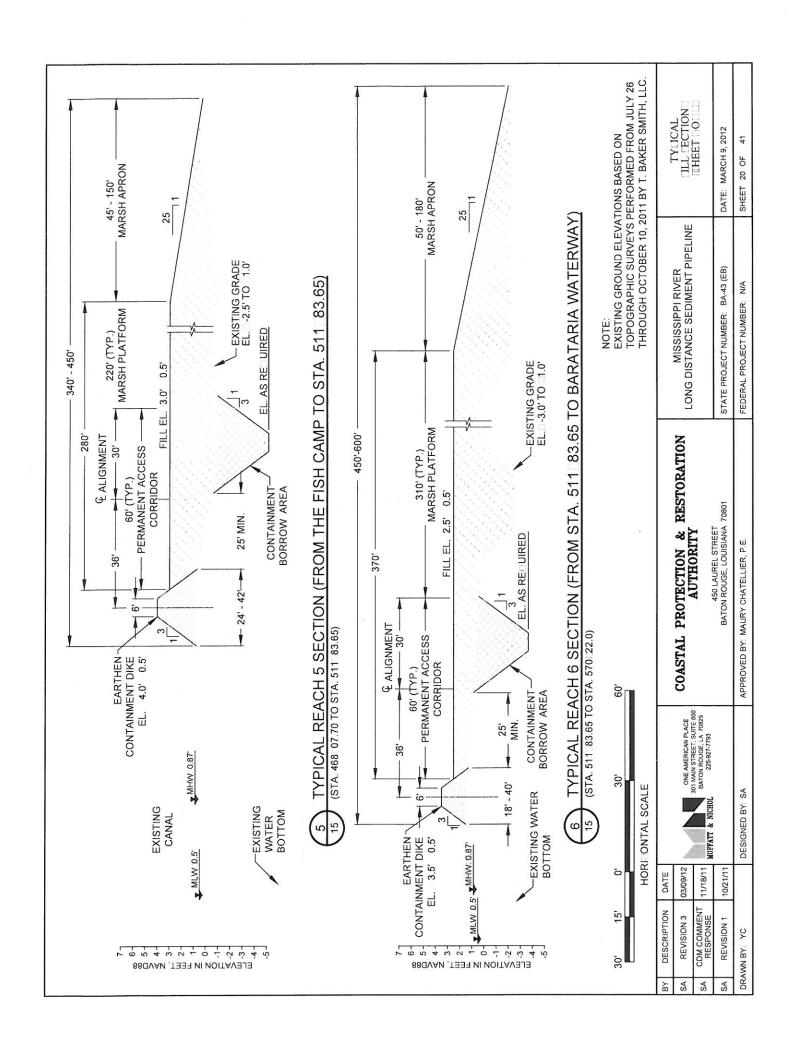
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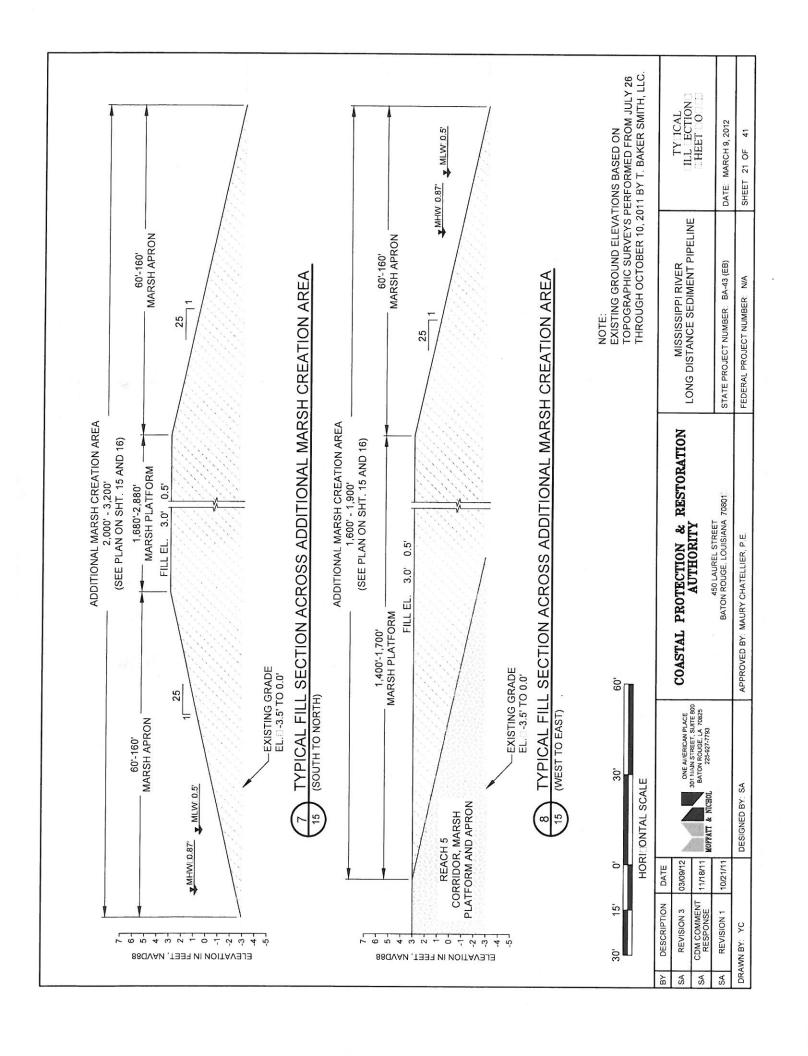
MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE

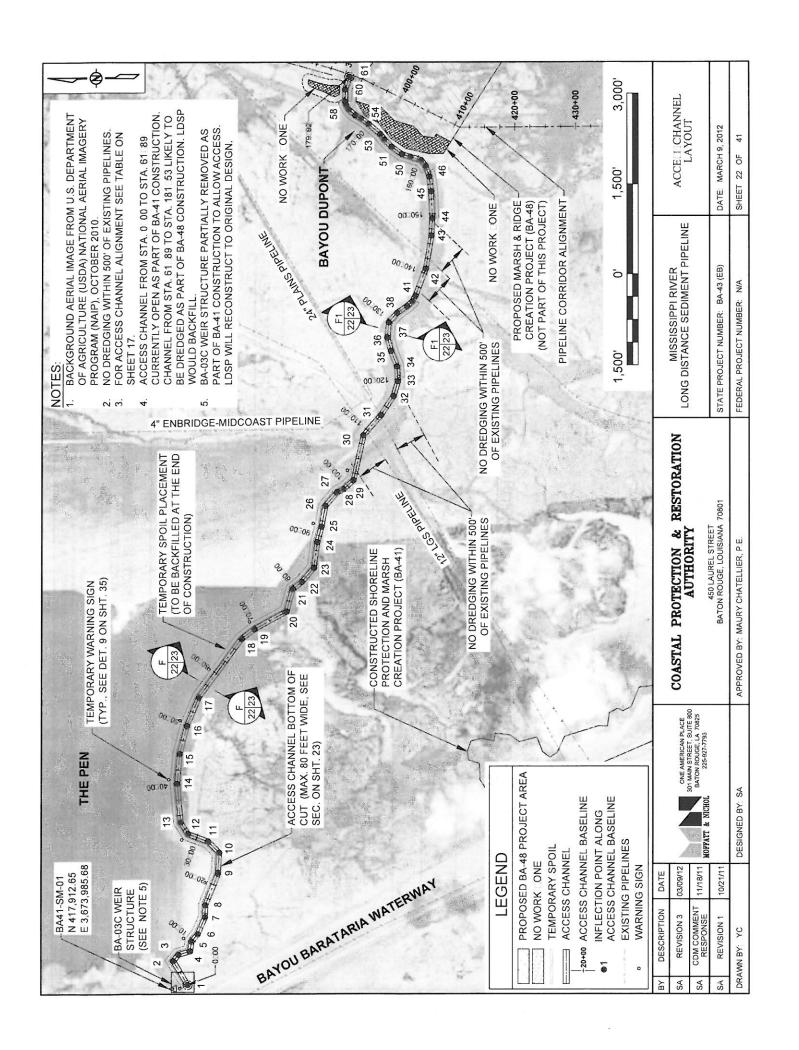
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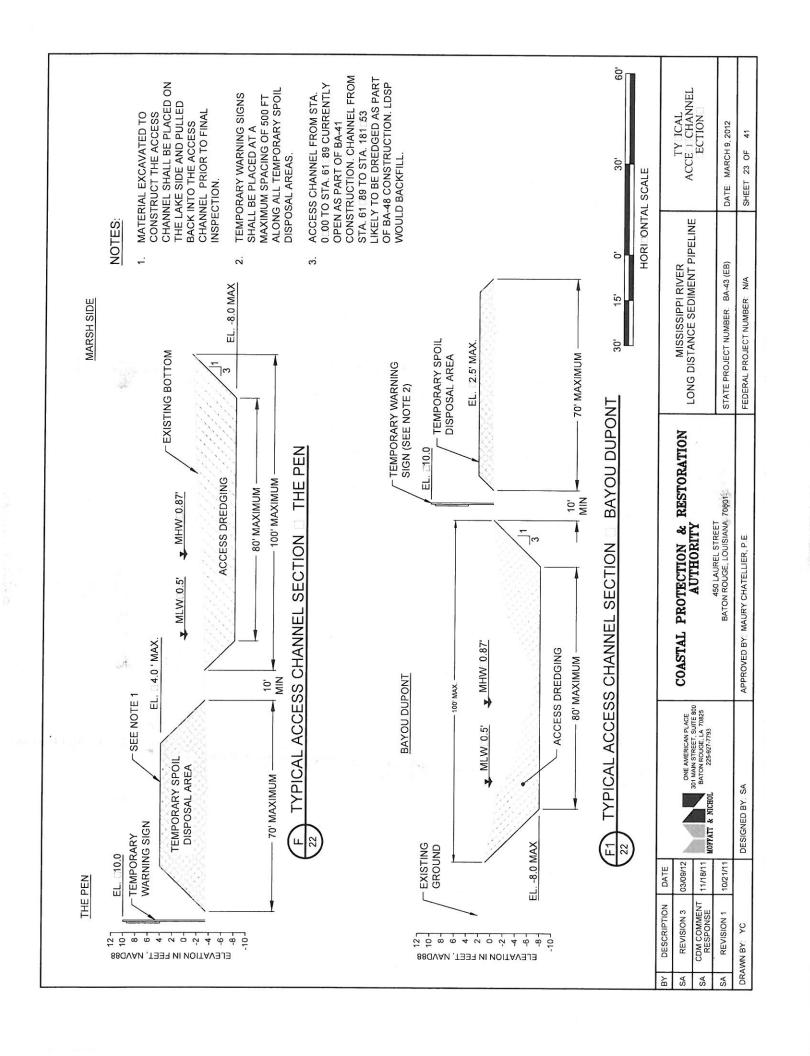


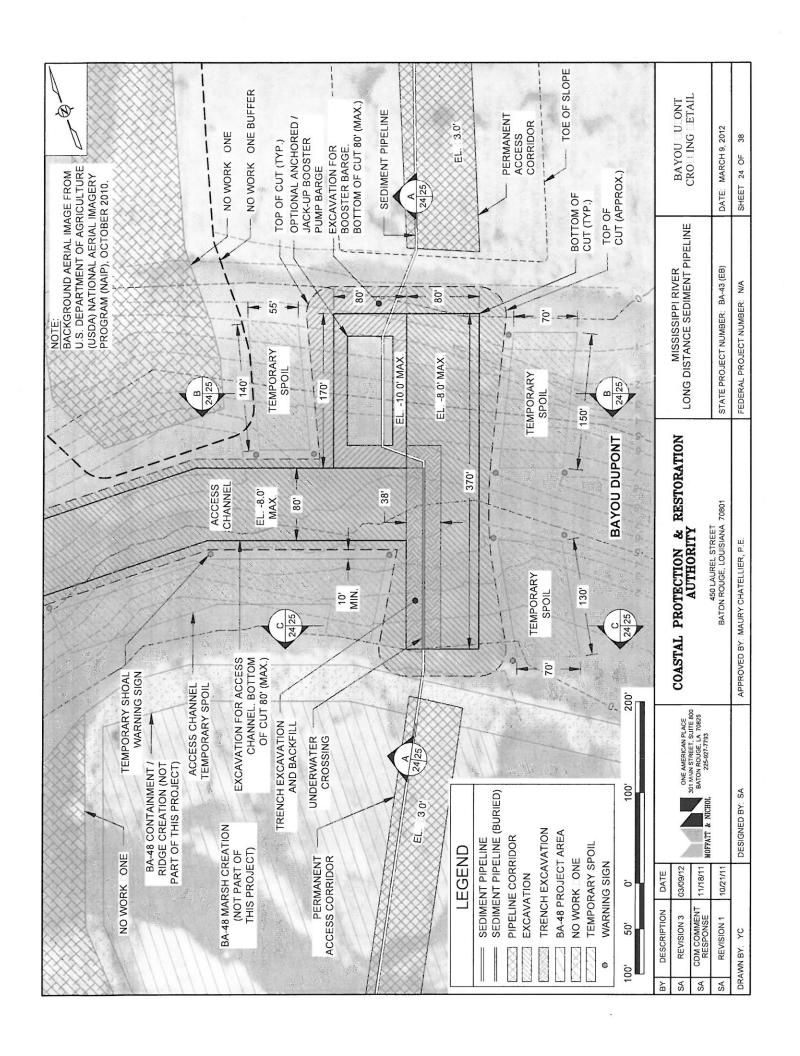


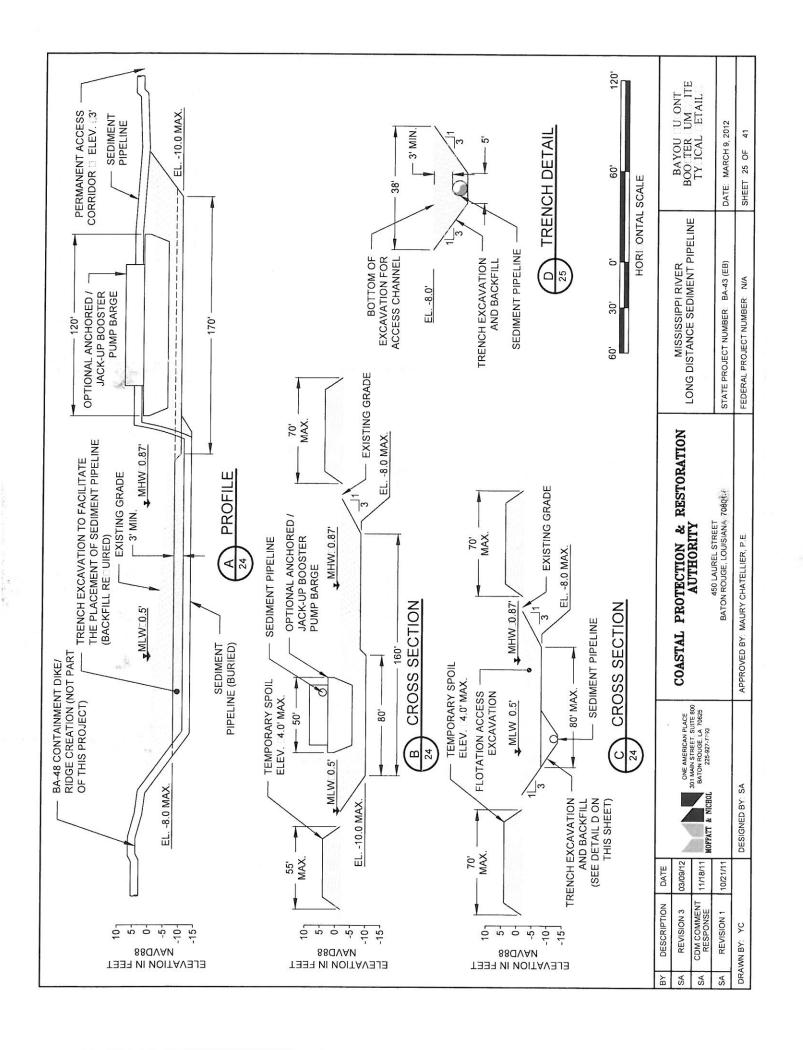


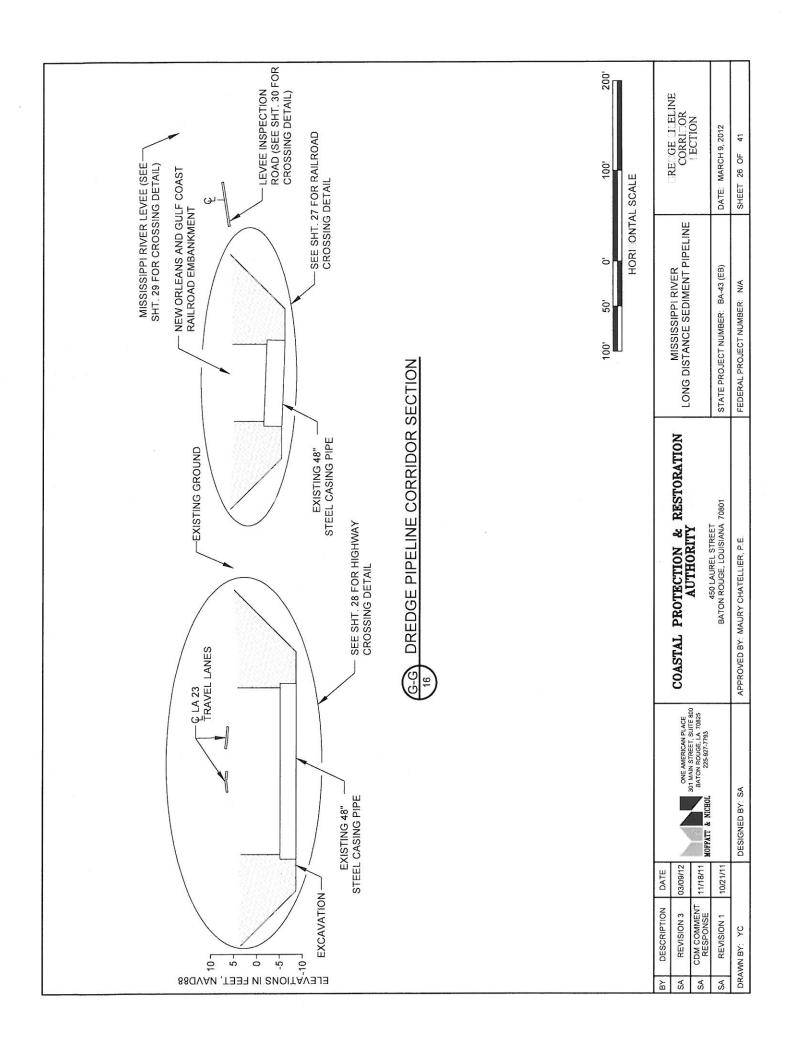


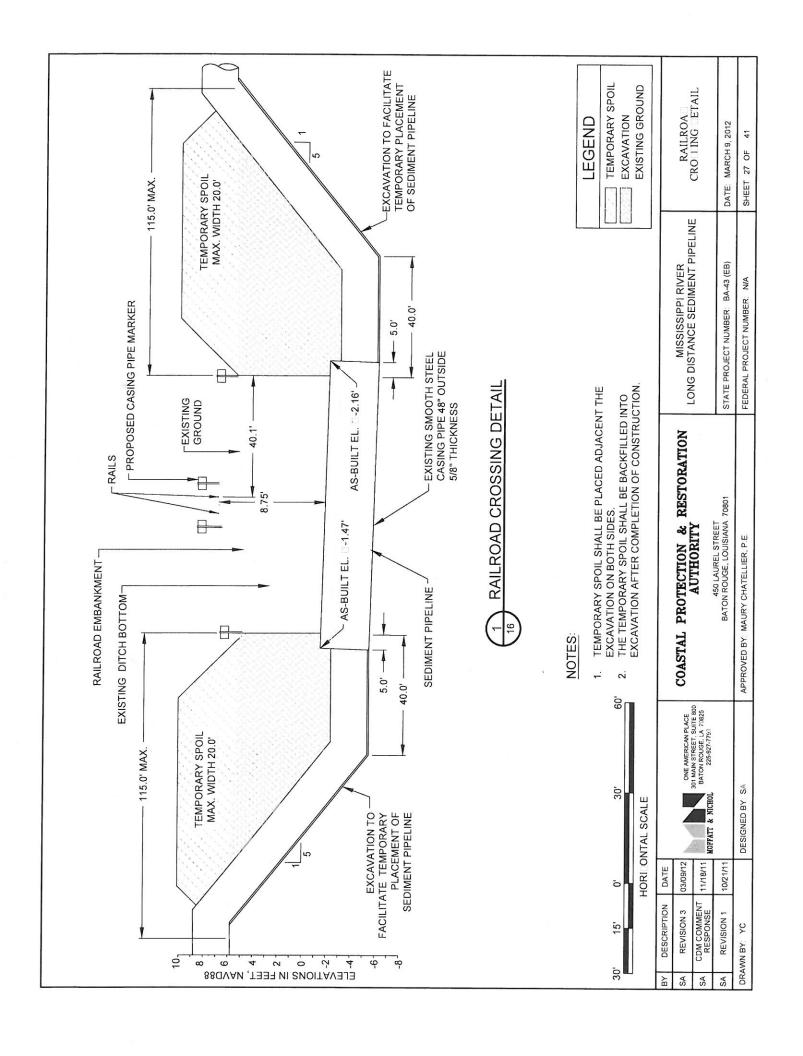


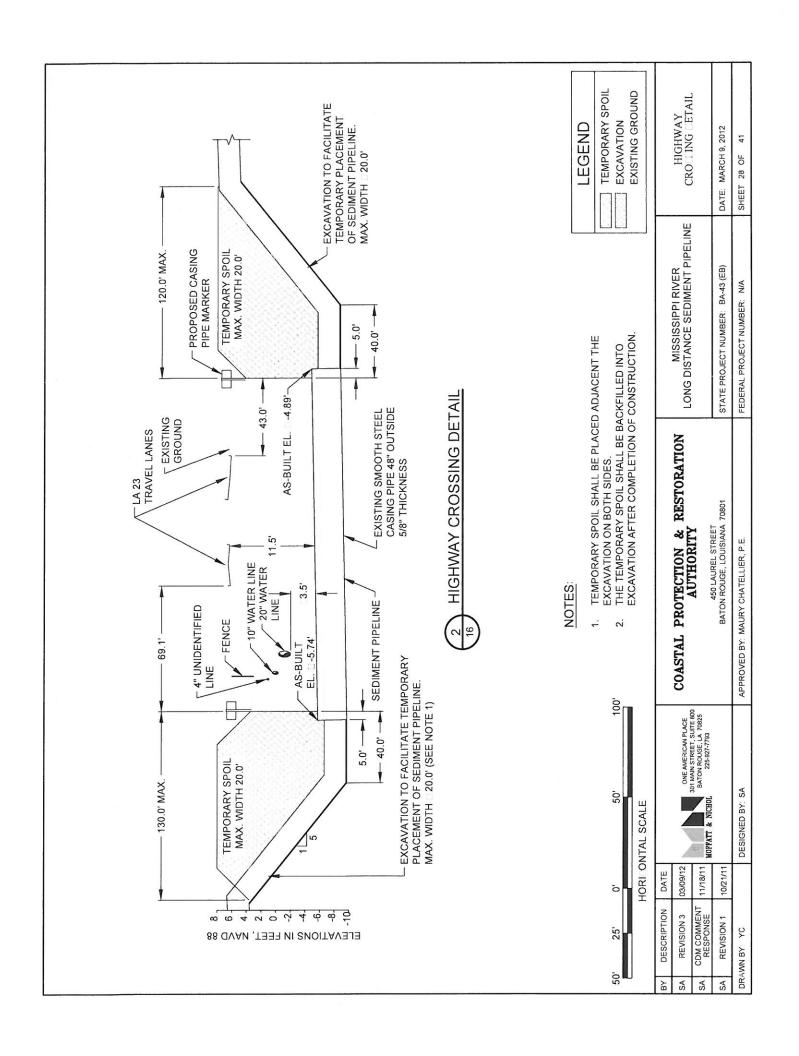


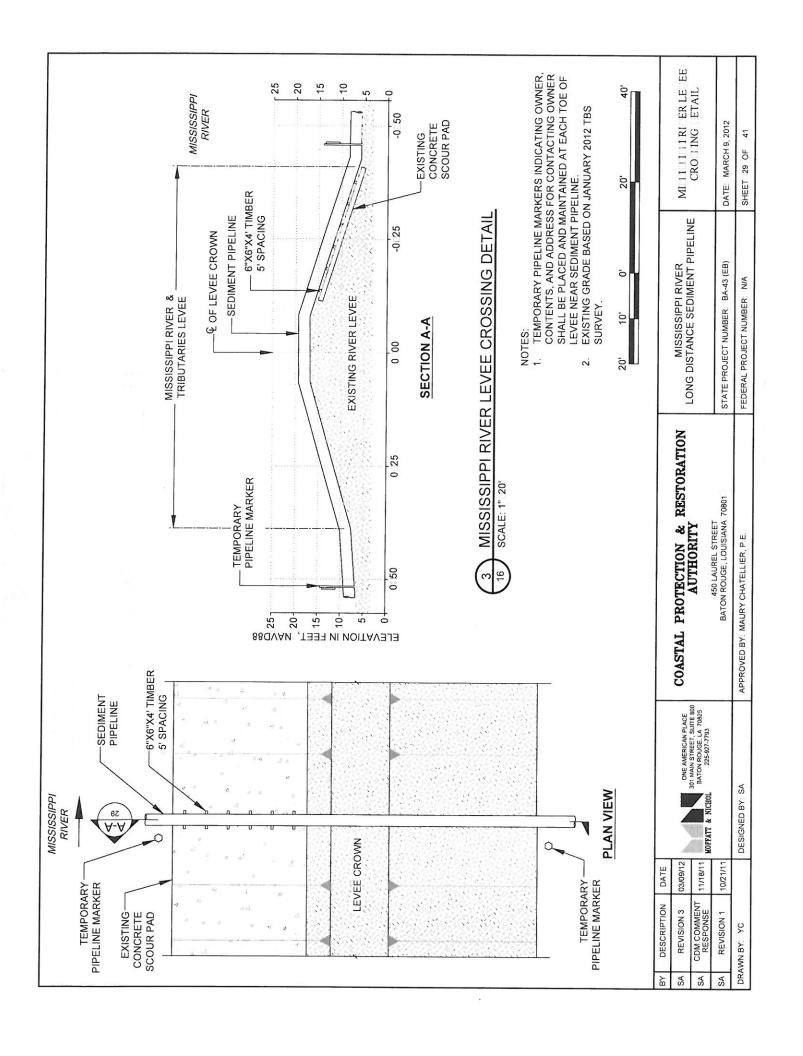


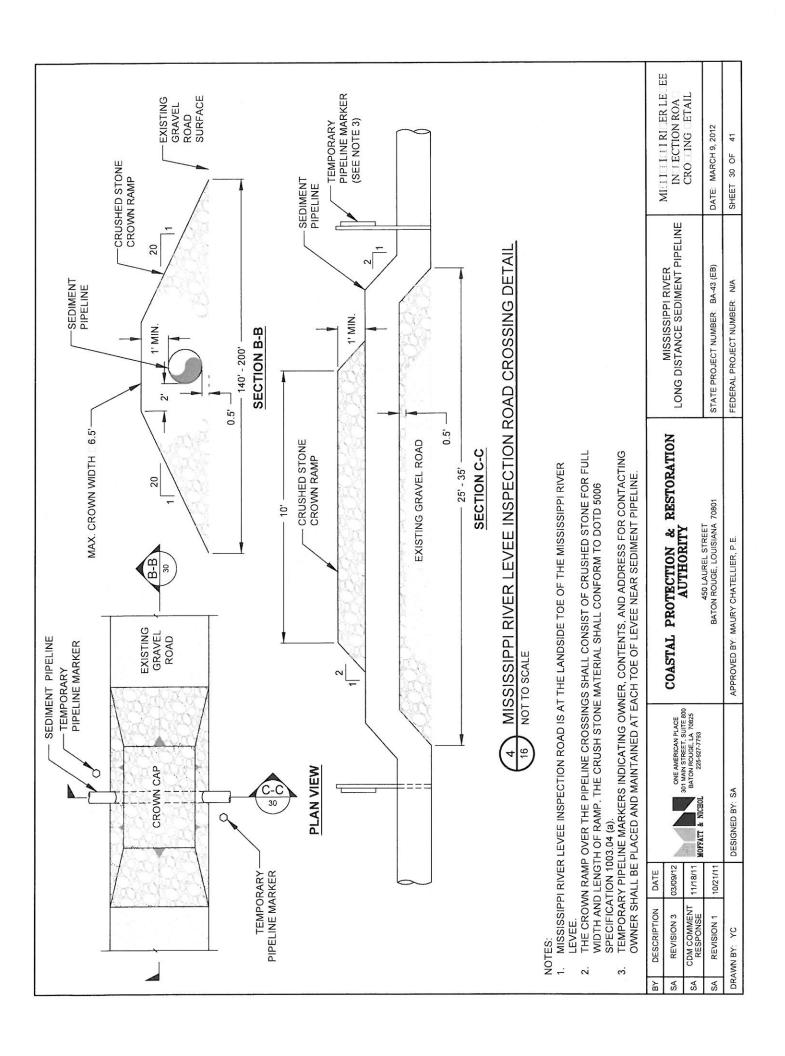


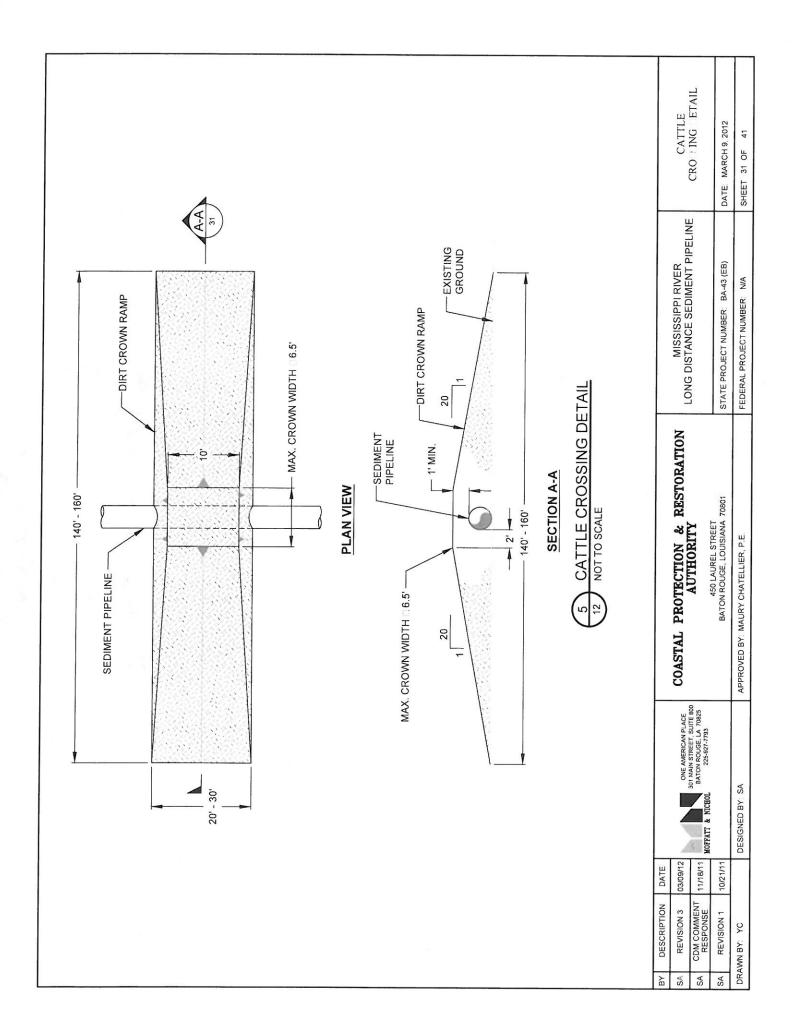


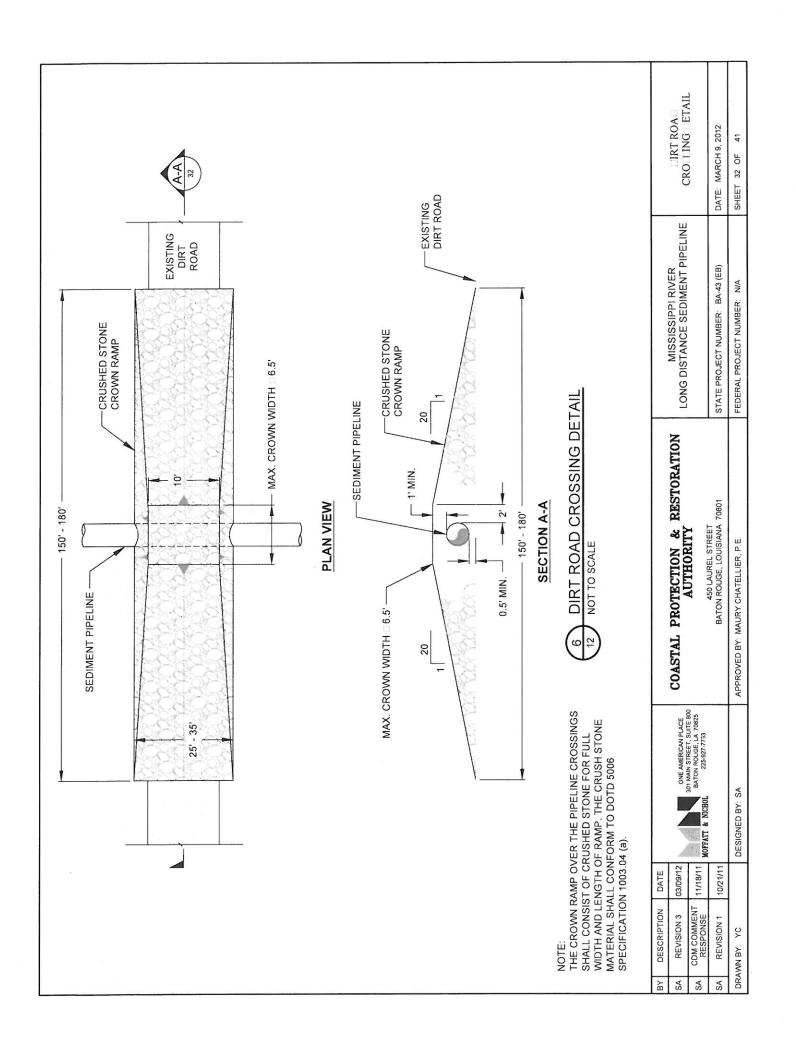


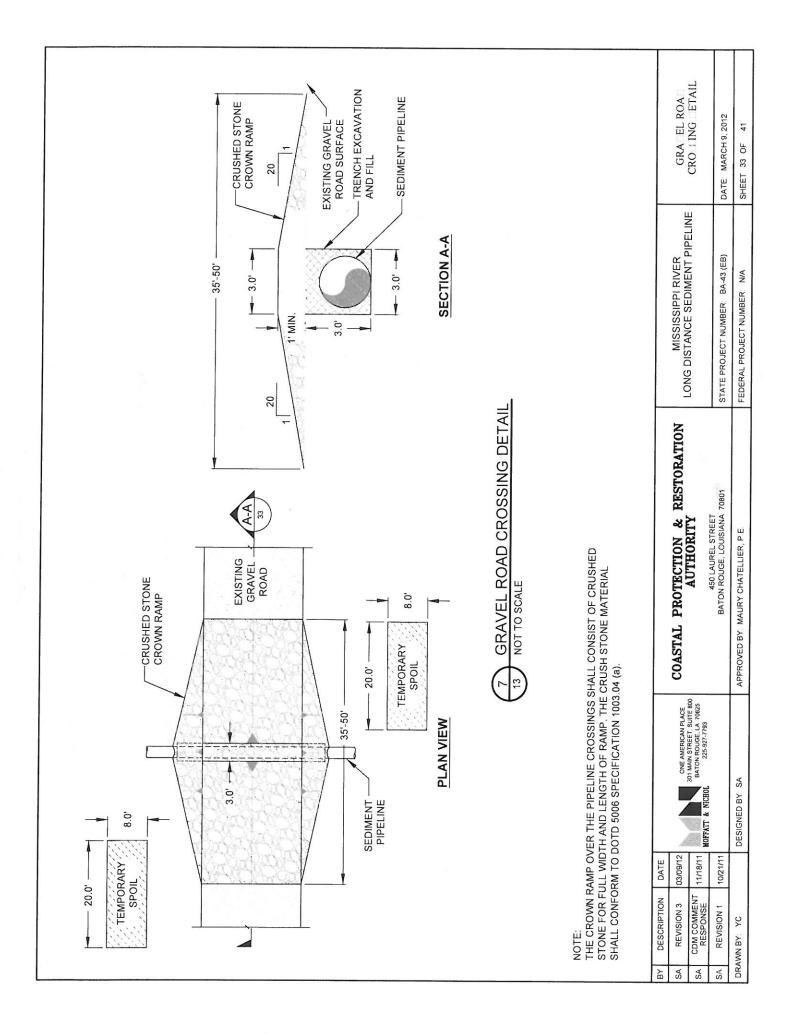


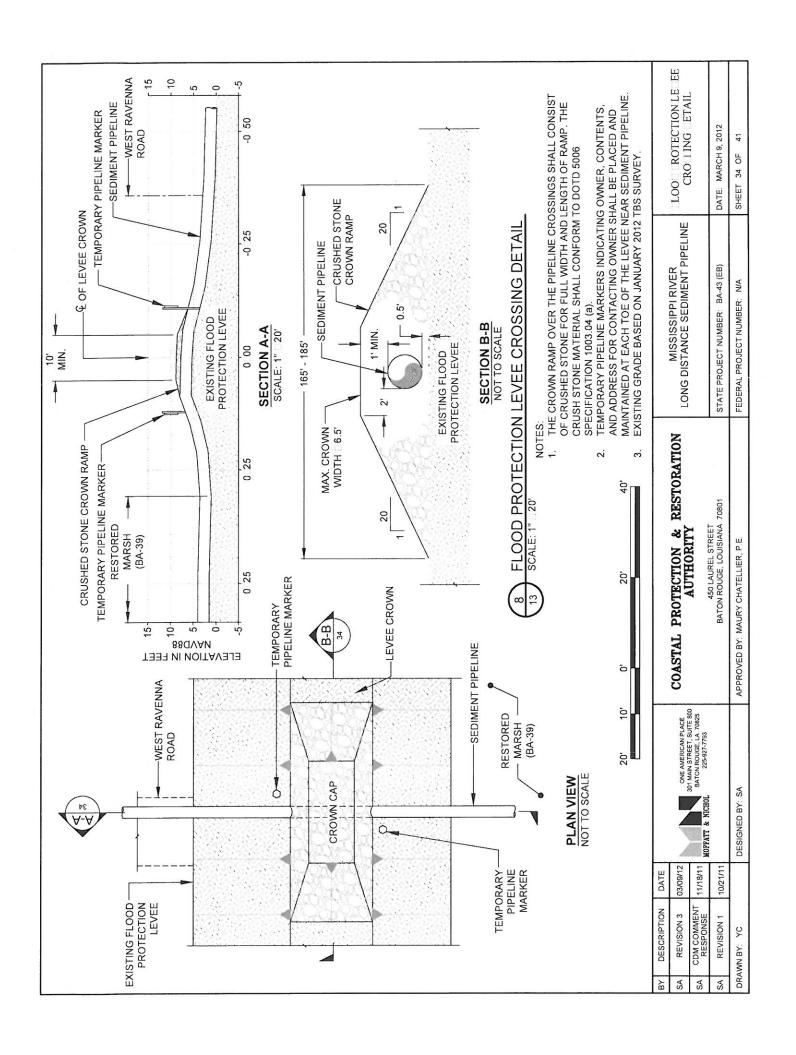


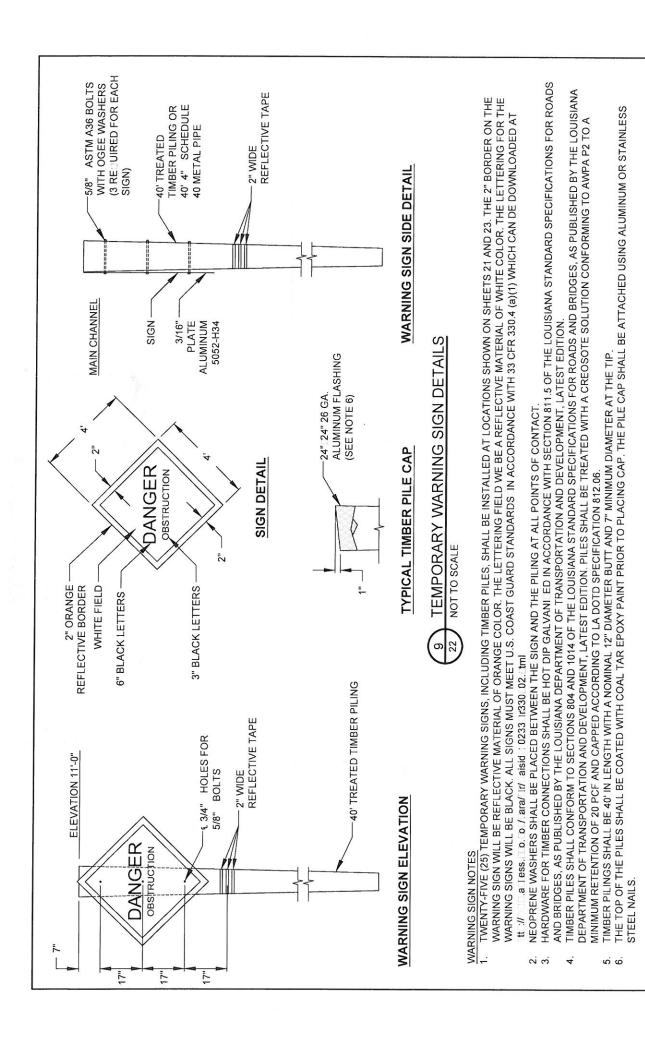












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WARNING

MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE

COASTAL PROTECTION & RESTORATION

ONE AMERICAN PLACE 301 MAIN STREET SUITE 800 BATON ROUGE, LA 7/1825 225-927-7793

MOFFATT & NICHO

REVISION 3 CDM COMMENT RESPONSE

REVISION 1

DRAWN BY YC

03/09/12

DATE

DESCRIPTION

SA SA BY

450 LAUREL STREET BATON ROUGE, LOUISIANA 70801

APPROVED BY: MAURY CHATELLIER, P.E.

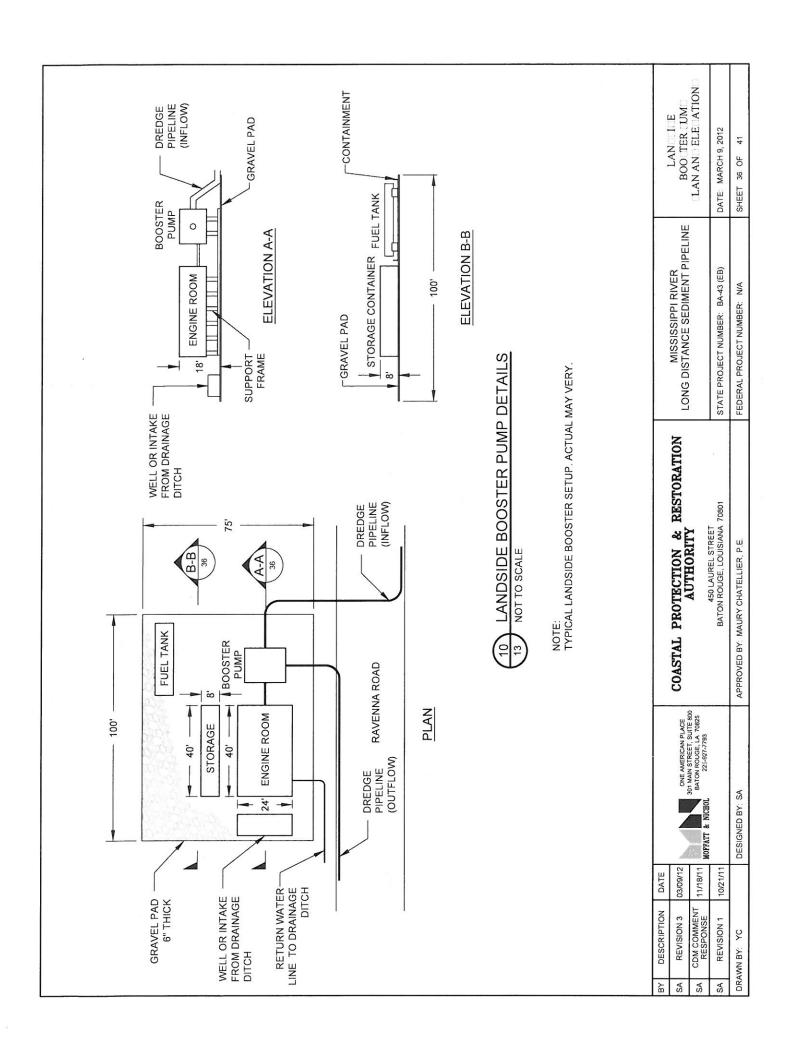
DESIGNED BY: SA

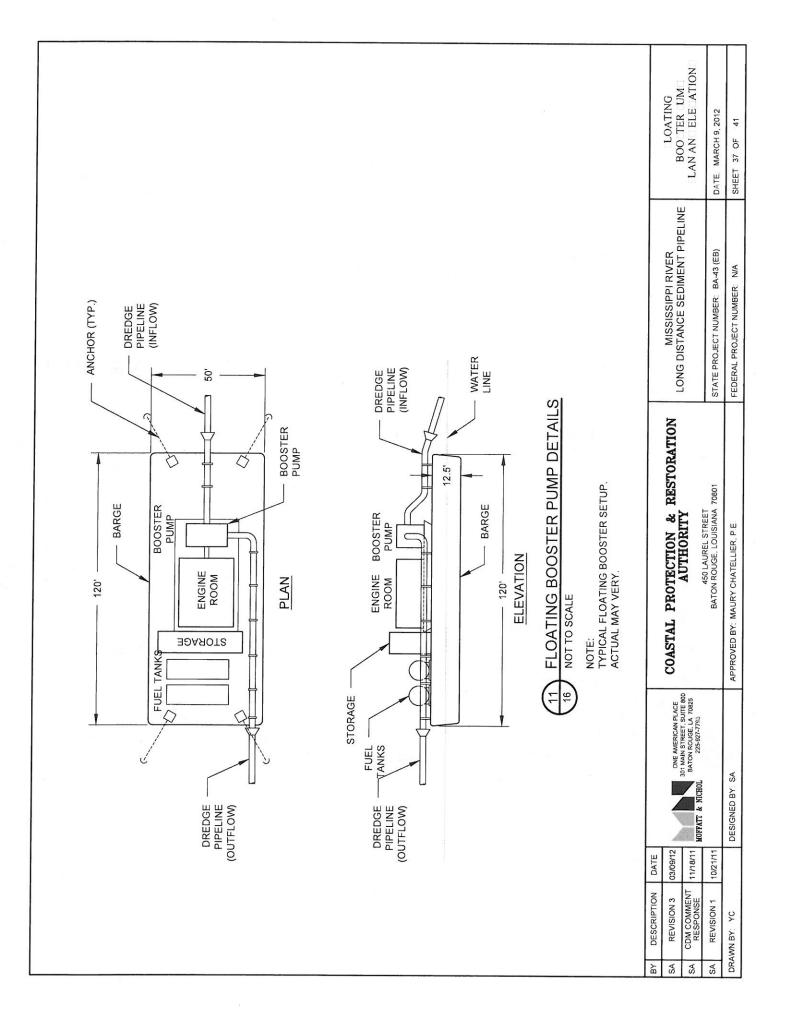
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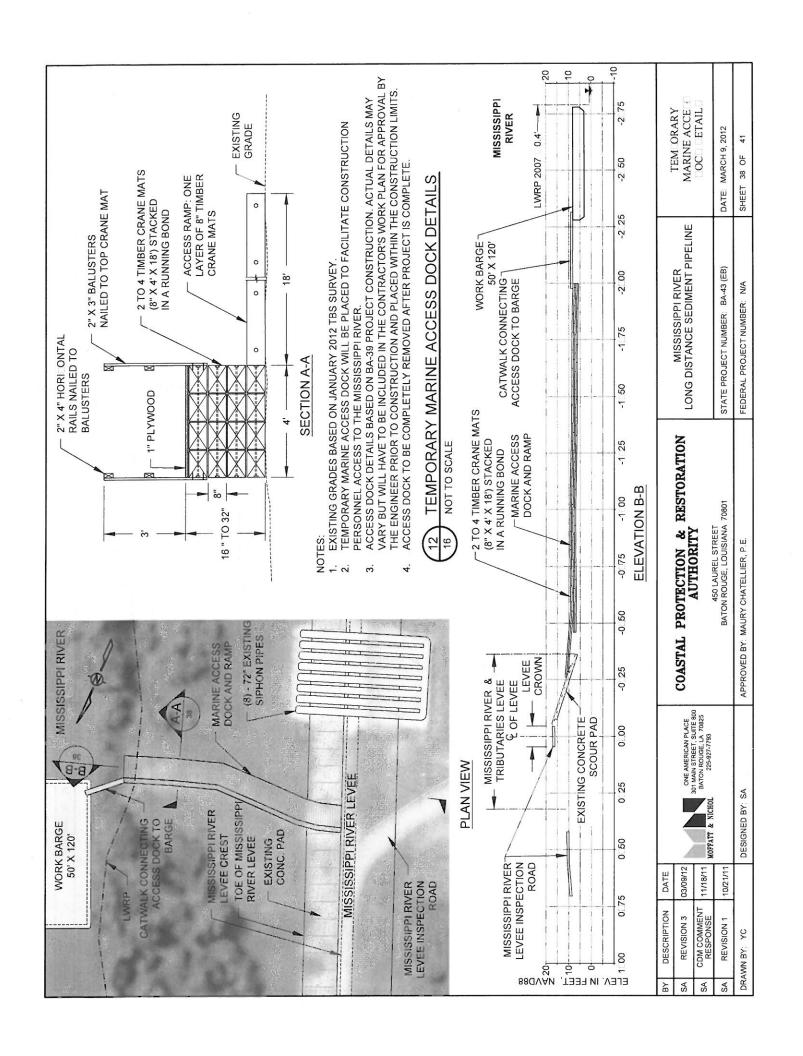
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FEDERAL PROJECT NUMBER: N/A

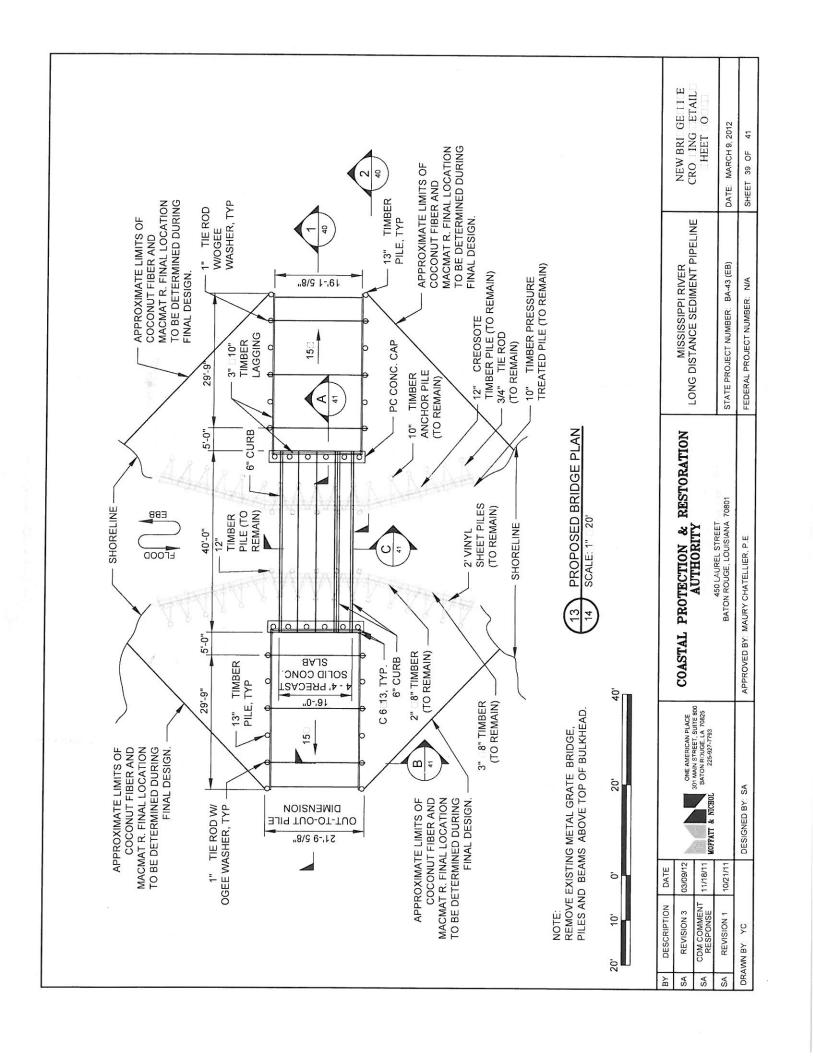
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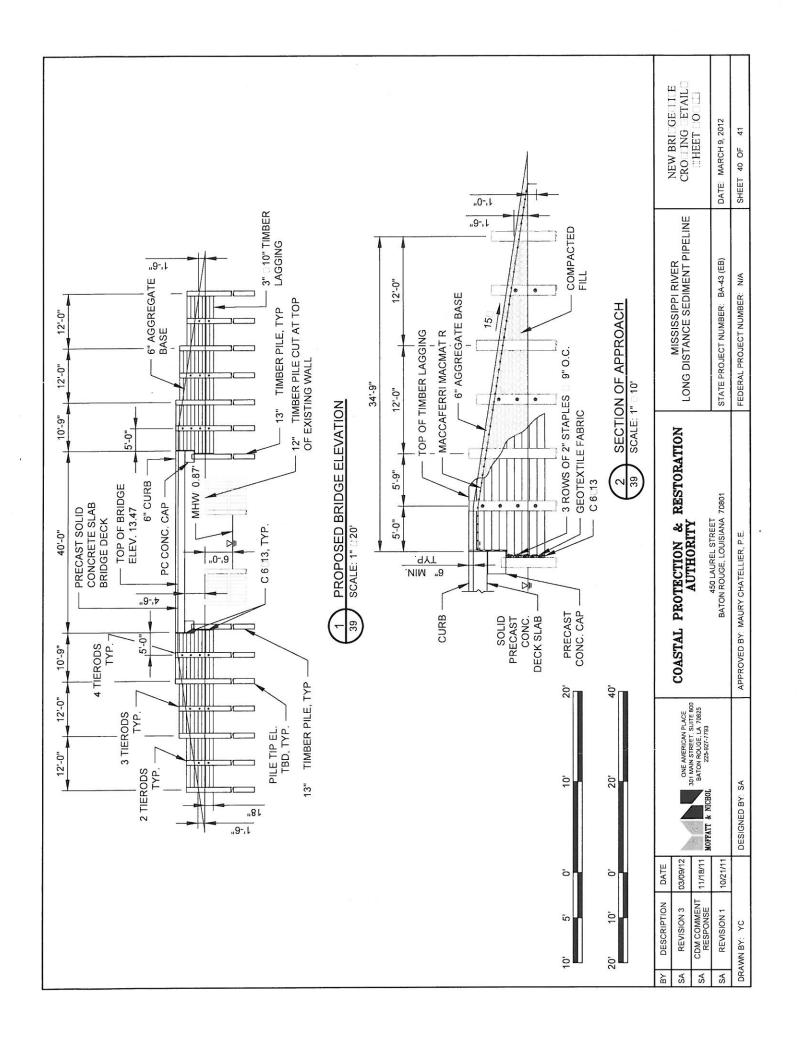
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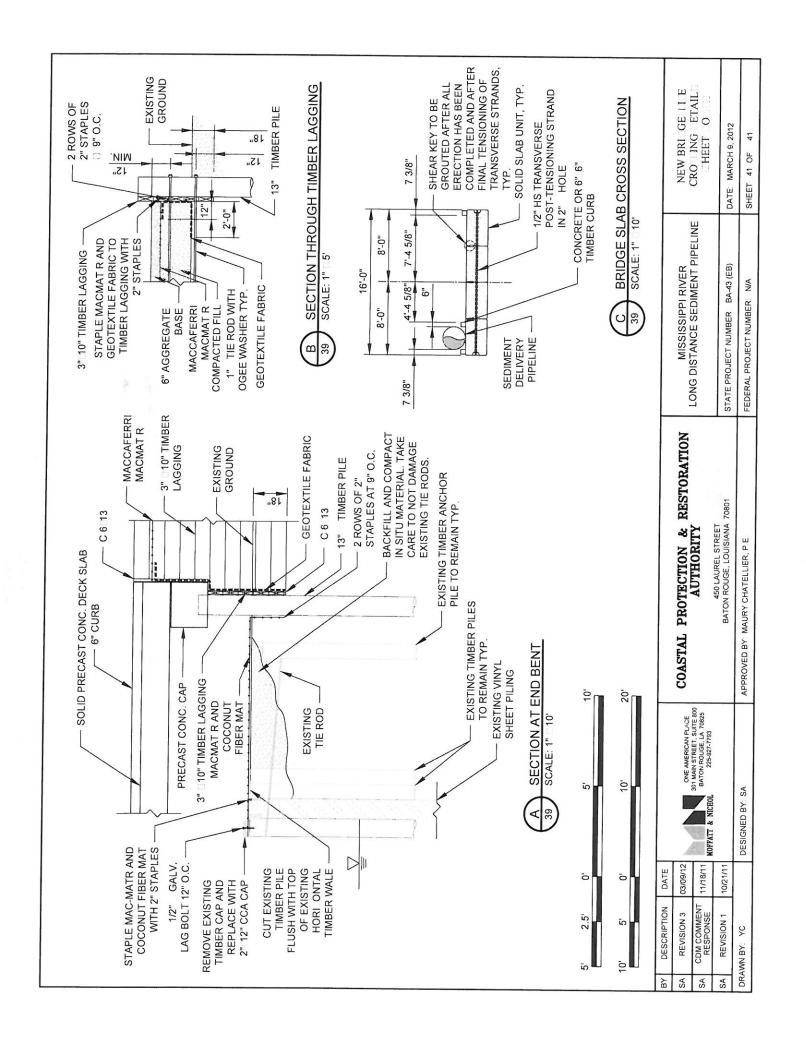














DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS P.O. BOX 60267 NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO ATTENTION OF
Operations Division
Eastern Evaluation Section

OCT 1 5 2015

SUBJECT: MVN-2009-1353-EPP

Coastal Protection & Restoration Authority of Louisiana & Louisiana Department of Transportation & Development c/o Moffat & Nichol 301 Main Street, Suite 800 Baton Rouge, Louisiana 70825

Gentlemen:

Revised drawings, enclosed in fifty three sheets, furnished with your Department of the Army permit application dated July 17, 2015, to dredge to construct a sediment pipeline corridor and marsh restoration/nourishment area, located within the Mississippi River, between 67 to 60 miles above Head of Passes, crossing and south of Highway 23, near Naomi, in Plaquemines and Jefferson Parishes, Louisiana, are approved and supersede those included in the work authorized by the Secretary of the Army in a permit dated February 19, 2013, and subsequently modified July 31, 2014, from the District Engineer at New Orleans, Louisiana.

The conditions to which the work is made subject shall remain in full force and effect.

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

Please find enclosed this District's decision pursuant to 33 USC 408 (Section 408) concerning your request to alter or occupy an existing US Army Corps of Engineers Civil Works Project. Questions concerning the enclosed permission should be directed to the point of contact provided in the Section 408 permission letter.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Martin S. Mayer

Chief, Regulatory Branch

for

Richard L. Hansen Colonel, US Army

District Commander

Enclosures

cc: Moffatt & Nichol



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS P. O. BOX 60267 NEW ORLEANS, LOUISIANA 70160-0267

September 22, 2015

REPLY TO ATTENTION OF

Operations Division Operations Manager, Completed Works

Mr. Chris Williams Moffat & Nichol 301 Main Street, Suite 800 Baton Rouge, Louisiana 70825

Mr. Devyani Kar Coastal Protection and Restoration Authority Post Office Box 44027 Baton Rouge, Louisiana 70804

Dear Mr. Williams and Mr. Kar:

Please reference our letter of no objection to Plaquemines Parish Government West Bank Levee District dated December 19, 2012, regarding a permit request (MVN-2009-01353-EFF) from Moffat & Nichol, on behalf of Coastal Protection and Restoration Authority, concerning permission to place a dredge pipe across the right descending Mississippi River levee, for the Mississippi River Long Distance Sediment Pipeline Project, vicinity of second order levee station 948+25, at La Reussite, Louisiana, in Plaquemines Parish.

Subsequently, we have received an application for a Department of the Army permit dated July 17, 2015, from Moffat & Nichol, on behalf of Coastal Protection and Restoration Authority, requesting approval for revisions to your original plans which includes placing the pipeline through existing siphons and the removal of the Myrtle Grove borrow area.

Pursuant to Section 14 of the Rivers and Harbors Act of 1899, 33 USC 408 (Section 408), we have no objection to the proposed project provided:

a. The work is accomplished in accordance with the above referenced application dated July 17, 2015, and accompanying revised drawings.

- b. All excavation work within 1,500 feet of the Mississippi River levee shall be performed, completed and backfilled when the stage of the Mississippi River is below elevation +11.0 feet on the Carrollton gage, at New Orleans, Louisiana. Information concerning current river stages may be obtained on our website at www.mvn.usace.army.mil.
- c. All excavations within 1,500 feet of the Federal floodwall need to be backfilled within three days of a tropical event expected to make landfall of the Louisiana coast.
- d. The permitted activity must not interfere with navigation and must be coordinated with the US Coast Guard.
- e. Should the proposed structure or authorized work cause an obstruction or hazard to navigation, you will be required to remove, relocate or alter the work at your expense.
- f. There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein. You will, at your expense, install and maintain any safety light, signals, and signs prescribed by the United States Coast Guard, through regulations or otherwise, on authorized facilities or on equipment used in performing work under the authorization.
- g. If the proposed project, involves the use of floating construction equipment (barge mounted cranes, barge mounted pile driving equipment, floating dredge equipment, dredge discharge pipelines, etc.,) in the waterway, you are advised to notify the Eighth Coast Guard District so that a Notice to Mariners, if required, may be prepared. Notification with a copy of your permit approval and drawings should be mailed to the Commander, Eight Coast Guard District, Hale Boggs Federal Building, 500 Poydras Street, Room 1230, New Orleans, Louisiana 70130, (504) 671-2107, about one month before you plan to start work.
- h. You understand and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, you will be required upon due notice from the U.S. Corps of Engineers, to remove, relocate or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

- i. Any damage to the levee, batture and/or existing revetment as a result of your activities is repaired at your expense. The sediment delivery pipeline is not allowed to rest on the existing revetment.
- j. You are not requesting changes to the limits of borrow for Willis Point, Alliance Anchorage, or Alliance South borrow areas from what was originally approved by the U.S. Army Corps of Engineers (USACE) and the State of Louisiana under the original permit MVN-2009-1353-EFF. Associated requirements for reservations of borrow material required to construct the salt water sill shall be adhered to.
- k. The borrow site (Alliance Anchorage Borrow Area) identified in the application, is the saltwater barrier sill's primary Borrow Area # I, Mississippi River Mile 63.8 to Mile 65 AHP). The issuance of this permit and your actions hereunder, shall in no way adversely affect the cost, time, and schedule of the planning and/or construction of the saltwater barrier sill by the USACE.
- I. You must ensure that 500,000 cubic yards (cy) are always available above elevation -70 NGVD, within the Alliance Anchorage Borrow area. A reserve area for this material has been designated and the reserve quantity must be located within the boundaries shown on the enclosed (Mississippi River Hydrographic Survey Salt Water Sill Borrow Area I-map), as Attachment I.
- m. While this project is ongoing, you must be aware that the USACE may issue a contract to build the sill. If USACE issues a sill solicitation, you shall allow its contractor to bid on the sill contract. If your contractor is awarded the sill contract, then you shall release the contractor for the time required to build the sill. If your contractor chooses not to bid on the sill contract or another contractor is awarded the sill contract, your contractor shall suspend operations and move off site so as not to interfere with or delay the USACE notice to proceed or the sill contractor's work.
- n. Until the Alliance Anchorage Borrow Area is naturally restored from the effects of this permit, any additional costs associated with USACE's construction of the sill shall be borne by you. These additional costs could occur after this permit has expired. These additional costs will be calculated by the USACE. You will provide funds prior to USACE opening bids for the saltwater barrier sill contract.

- o. Dredging in the Alliance Anchorage Borrow site is limited to a 1Vertical on 5Horizontal slope with a control point 400 feet riverward of the levee centerline and Elevation +5 feet. You shall submit for approval a detailed dredging plan for the Alliance Anchorage Borrow Area. The plan shall be submitted at least 30 days prior to the scheduled commencement of work in the site and shall include hydrographic surveys of the borrow area with plans for dredging; thereby identifying the material to be removed and the 500,000 cy reserved area (material to be reserved above elevation -70 NGVD). USACE must approve the dredging plan prior to the commencement of your work. The surveys and plans shall be updated every 30 days until project completion. All updated plans must also be approved before you can implement the updated plan. The surveys and dredging plan shall be submitted in electronic format and hardcopy to the USACE Mississippi River Operations Manager. For questions or forwarding information, please contact Mrs. Heather Jennings at (504) 862-1253 or heather.l.jennings@usace.army.mil.
- p. To address navigation safety during construction of the project, you will initiate a daily conference call; to include representatives of the dredging contractor, the US Coast Guard, pertinent members of the USACE, and other navigation stakeholders. During construction, the frequency of the conference call can be reduced upon agreement from the US Coast Guard and the USACE.
- q. That should changes in the location or section of the existing levee and/or river, or in the generally prevailing conditions in the vicinity, be required in the future in the public interest, you shall make changes in the project concerned, or in the arrangement thereof, as may be necessary to satisfactorily meet the situation and shall bear the cost thereof.
- r. You are solely responsible for any remedial actions needed to correct any deficiencies in the design or construction of the proposed project as it impacts the federal project.
- s. Please provide written notification to this office of the construction timeline to include the proposed start and end dates. Additionally, please notify this office prior to commencement and upon completion of the work permitted herein.
- t. Any individual authorization granted under this permit may be modified, suspended, or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this permit or that such action would otherwise be in the public interest.

- u. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party as described in stipulation "v" below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- v. If you sell the property associated with this permit, you must provide this office with a copy of the permit and a letter noting your agreement to transfer the permit to the new owner and the new owner's agreement to accept the permit and abide by all conditions of the permit. This letter must be signed by both parties.
- w. That all provisions of our original letter of no objection dated December 19, 2012, referenced above, not affected by this revision, remain in effect.

This letter is based upon engineering criteria, and no interpretation or comments regarding local laws, zoning, or ordinances concerning property rights, etc., have been made. Additionally, this letter does not obviate your requirement to obtain federal, state, or local permits required by law, and no work should commence until all necessary permits are required.

You are advised that you must obtain a Department of the Army (DA) permit prior to the commencement of any work at the site. The U.S. Army Corps of Engineers point of contact in our Regulatory Branch for the DA permit (MVN-2009-01353-EFF), is Ms. Stephanie Castaing at 504-862-1564, or by email at stephanie.l.castaing@usace.army.mil.

If you have any questions, please contact Amy Powell, Operations Manager for Completed Works or Albert Terry, Assistant Operations Manager for Completed Works of my office at 504-862-2241 or 504-862-2311, respectively. Additionally, future correspondence concerning this project should reference our letter number 15-386. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Sincerely,

Michael F. Park

Chief, Operations Division

for Richard L. Hansen, District Commander

CC:

CPRA

Plaquemines Parish Permits Office

INDEX OF DRAWINGS

SHT DESCRIPTION

GENERAL AND DREDGING NOTES

YPICAL MISSISSIPPI RIVER PIPELINE SECTIONS - PERMITTED

WILLS POINT BORROW AREA LAYOUT - PERMITTED WILLS POINT SOUTH BORROW AREA TYPICAL SECTION -

ALLÍANCE ANCHORAGE BORROW AREA LAYOUT - PERMITTED ALLIANCE ANCHORAGE BORROW AREA TYPICAL SECTION -

JANCE SOUTH BORROW AREA TYPICAL SECTION - PERMITTED JANCE SOUTH BORROW AREA LAYOUT - PERMITTED

PERMITTED PIPELINE CORRIDOR LAYOUT (SHEET 3 OF 4)
PERMITTED PIPELINE CORRIDOR LAYOUT (SHEET 4 OF 4)

PROPOSED TYPICAL FILL SECTIONS (SHEET 1 OF 5)
PROPOSED TYPICAL FILL SECTIONS (SHEET 2 OF 5)
PROPOSED TYPICAL FILL SECTIONS (SHEET 3 OF 5)
PROPOSED TYPICAL FILL SECTIONS (SHEET 4 OF 5)
PROPOSED TYPICAL FILL SECTIONS (SHEET 4 OF 5)

BAYOU DUPONT CROSSING DETAIL - PERMITTED BAYOU DUPONT BOOSTER PUMP SITE TYPICAL DETAILS. PICAL ACCESS CHANNEL SECTIONS - PERMITTED

PIPELINE CORRIDOR SECTION - PERMITTED

ISSISSIPPI RIVER LEVEE CROSSING DETAIL - PERMITTED ISSISSIPPI RIVER LEVEE INSPECTION ROAD CROSSING DETAIL RAILROAD CROSSING DETAIL - PERMITTED HIGHWAY CROSSING DETAIL - PERMITTED

DIRT ROAD CROSSING DETAIL - PERMITTED SRAVEL ROAD CROSSING DETAIL - PERMITTED LE CROSSING DETAIL - PERMITTED

LANDSIDE BOOSTER PUMP PLAN AND ELEVATIONS - PERMITTED FLOATING BOOSTER PUMP PLAN AND ELEVATIONS - PERMITTED

NEW BRIDGE PIPE CROSSING DETAILS (SHEET 2 OF 3) -

PERMITTED NEW BRIDGE PIPE CROSSING DETAILS (SHEET 3 OF 3) -PERMITTED
TEMPORARY CANAL CROSSING DETAIL

COASTAL PROTECTION AND RESTORATION AUTHORITY STATE OF LOUISIANA

LONG DISTANCE SEDIMENT PIPELINE JEFFERSON & PLAQUEMINES PARISHES, LOUISIANA STATE PROJECT No. BA-43 EB PERMIT MODIFICATIONS **MISSISSIPPI RIVER**

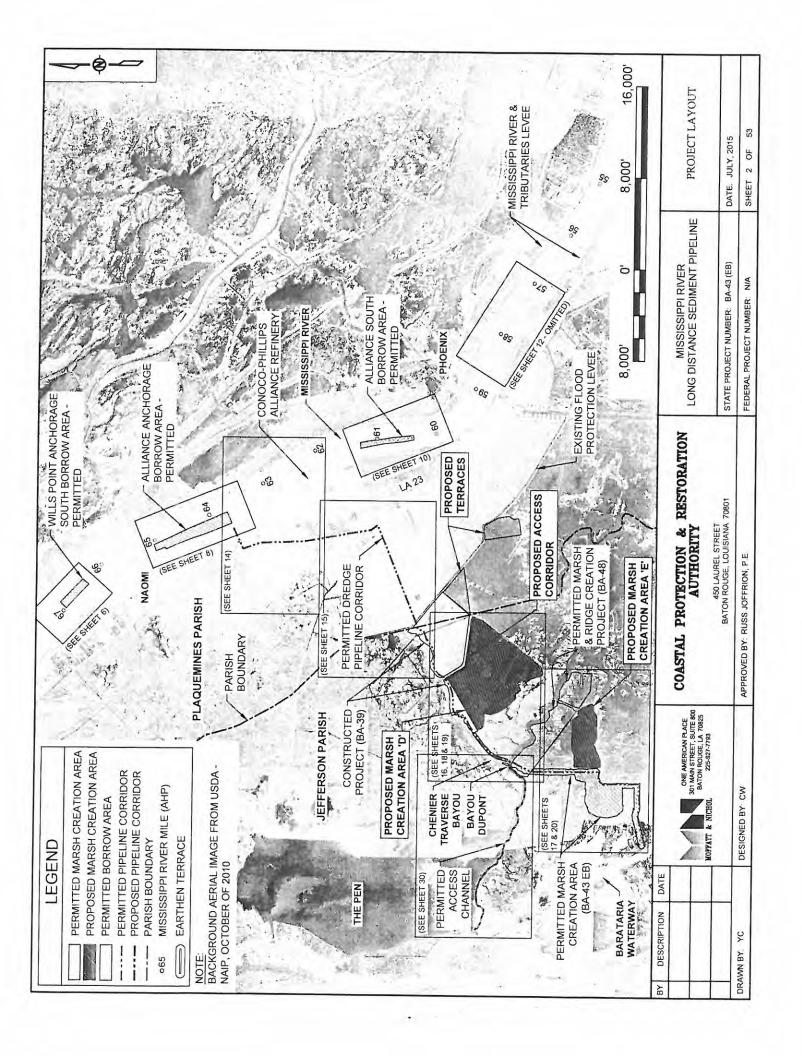




THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND NOT TO BE USED FOR CONSTRUCTION

The second secon	COASTAL PROTECTION & RESTORATION LONG DISTANCE SEDIMENT PIPELINE	450 LAUREL STREET BATON ROUGE, LOUISIANA 70801 DATE JULY	
	8 -	BATON	APPROVED BY: RUSS IC
	ONE AMERICAN PLACE 301 MAIN STREET: SUITE 800 BATON ROLIGE, LA 70825 Z25-827-7793	BATON	DESIGNED BY: CW
DESCRIPTION DATE	ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROLIGE, IA 70825 X NCHOL. Z25-827-7783	BATON	

TLL	LONG DISTANCE SEDIMENT PIPELINE	TITLE SHEET
TREET ISIANA 70801	STATE PROJECT NUMBER: BA43 (EB)	DATE. JULY, 2015
	FEDERAL PROJECT NUMBER: N/A	SHEET 1 OF 53



GENERAL NOTES:

- BACKGROUND AERIAL IMAGES FROM U.S. DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AERIAL IMAGERY PROGRAM (NAIP), OCTOBER 2010.
- COORDINATES ARE NAD83, LOUISIANA STATE PLANE, SOUTHERN ZONE, U.S. SURVEY FEET N
- ALL ELEVATIONS ARE IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), U.S. SURVEY FEET. 3
- ALL RIVER DATUMS SHOWN BASED ON HISTORIC DATA FOR MISSISSIPPI RIVER AT ALLIANCE (01390) RIVER MILE 62.5. RECORDS AVAILABLE FROM APRIL 2, 1977 TO DATE.
- THE CONTRACTOR SHALL NOT EXCAVATE WITHIN 500' OF ANY PIPELINE IN THE MISSISSIPPI RIVER OR WITHIN 50' OF ANY OTHER PIPELINE EXCEPT FOR NAOMI SIPHON PIPES. 3
- NO EXCAVATION SHALL BE PERMITTED WITHIN 25 FEET OF THE NAOMI SIPHON PIPES. THE EDGE OF THE DREDGE SLURRY PIPELINE SHALL BE PLACED A MINIMUM OF 25 FEET FROM THE EDGE OF THE NAOMI SIPHON PIPES. 9
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS AT THE TIME OF CONSTRUCTION. ALL PIPELINES AND UNDERGROUND UTILITIES SHALL BE FIELD LOCATED AND MARKED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PIPELINE AND UTILITY OPERATORS 72 HOURS PRIOR TO ANY EXCAVATION. 8
- NO CONSTRUCTION EQUIPMENT OR ACTIVITIES MAY OPERATE, TRANSIT, STAGE, OR STORE OUTSIDE OF THE CONSTRUCTION LIMITS. 6
- THIS DRAWING SET IS FOR PERMITTING PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION. 10

Ę.

ESTIMATED RANGE OF FULLY-LOADED DRAFTS FOR VESSELS TO BE USED DURING CONSTRUCTION: 6-8 FT 4-6 FT 24 FT 10-14 FT 4-6 FT 15-20 FT BOOSTER PUMP BARGES, WORK BARGES, FUEL BARGES SMALL BARGE-MOUNTED CLAMSHELL OR EXCAVATOR WORK BOATS, TENDERS .. 4.000 HP TUGS CREW BOATS ... 2,000 HP TUGS 0 9 o p 9 + 6

10 FT

LARGE HYDRAULIC DREDGE

DREDGING NOTES

- THE CONTRACTOR WILL BE REQUIRED TO ANCHOR WITHIN THE DREDGE ANCHOR LIMITS SHOWN IN SHEETS 6, 8, 10 AND 12.
- DREDGE ANCHOR LIMITS SHALL BE MARKED WITH BUOYS AS SHOWN IN SHEETS 6, 8, 10 AND 12. N
- DREDGING BEYOND THE BORROW AREA LIMITS SHOWN WILL BE NOT ALLOWED. 3
- DREDGING WILL BE ALLOWED TO A MAXIMUM DEPTH OF -90 FT NAVD88.

4

THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DAILY COMMUNICATION PLAN TO THE OWNER, THE USACE OPERATIONS DIVISION, AND MNSA DELINEATING THE LOCATION OF THE DREDGE, ATTENDANT PLANT, ANCHOR BUOYS, AND FLOATING PIPELINE AS PER THE OWNER SPECIFICATIONS. 3

MODIFICATIONS NOTES:

- ALL NEW AREAS OR FEATURES ARE SHOWN IN DARK FONT. THE ADDED TEXT IS SHOWN IN DARK FONT WITH A HEAVY BORDER AND GRAY FILL.
- REMAINED WITH TEXT FROM ORIGINAL PERMIT APPLICATION HAS "PERMITTED" INSERTED WHERE APPROPRIATE.

N

- FOR WILLS POINT, ALLIANCE ANCHORAGE OR ALLIANCE SOUTH FROM WHAT WAS ORIGINALLY APPROVED BY THE USACE AND THE STATE OF APPLICANT IS NOT REQUESTING ANY CHANGES TO THE LIMITS OF BORROW OUISIANA PER PERMIT NO. MVN-2009-1353-EFF. e
- OTHERWISE SPECIFIED, ITEMS MARKED "PERMITTED" REFER TO PERMIT NO. MVN-2009-1353-EFF. JNLESS 4
- INCLUDE PROPOSED NOTE THAT THE FOLLOWING SHEETS PLEASE NOTE THAT THE FOLLOWING SHEET MODIFICATIONS: 2-4, 12,13, 18-20, 23, 28-32 AND 53. 3

		S	11
	COASTAL PROTECTION & RESTORATION AUTHORITY	450 LAUREL STREET BATON ROUGE, LOJISIANA 70801	APPROVED BY: RUSS JOFFRION, P.E.
	ONE O1 MAII BATON	MOFFATT & NICHOL 225-927-7793	DESIGNED BY: CW
DATE			ľ
DESCRIPTION DATE			DRAWN BY: YC
			>

DREDGING NOTES

LONG DISTANCE SEDIMENT PIPELINE

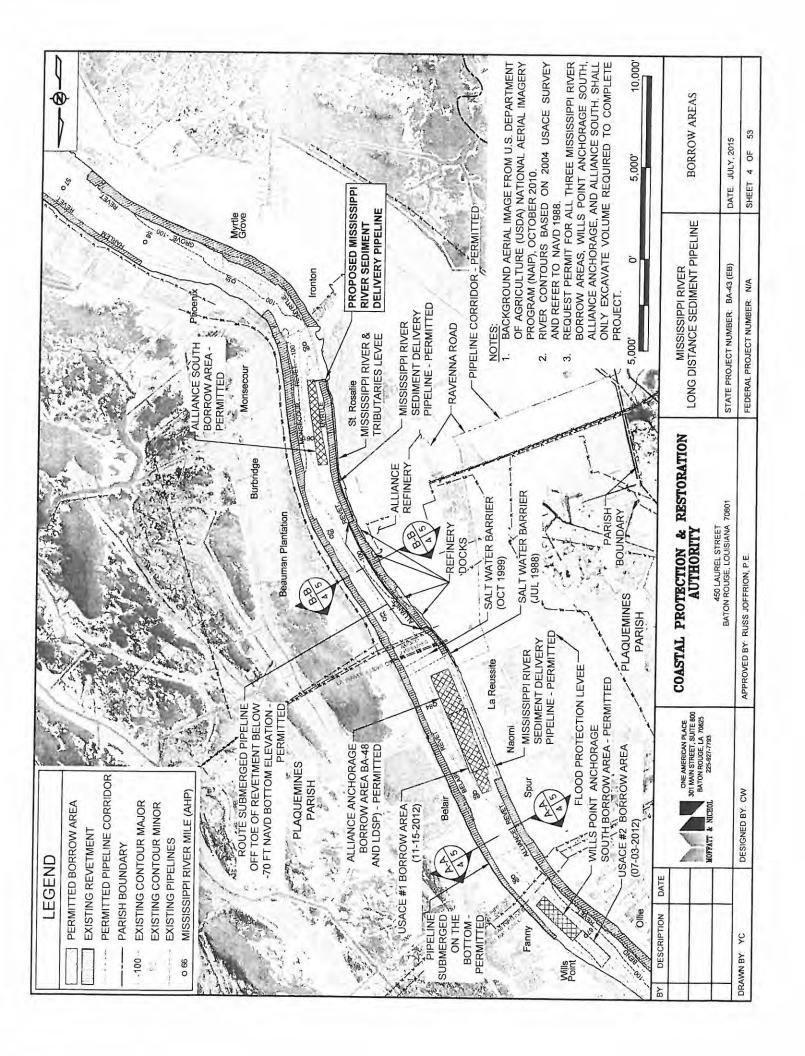
MISSISSIPPI RIVER

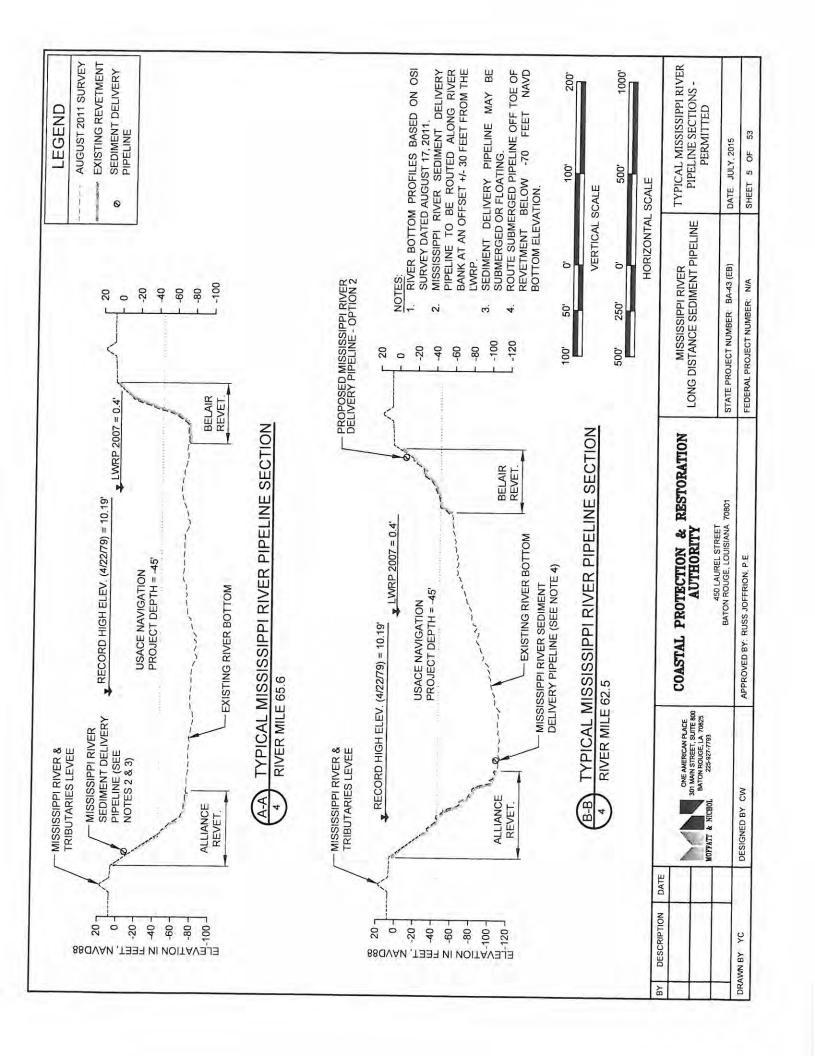
DATE: JULY, 2015 SHEET 3 OF

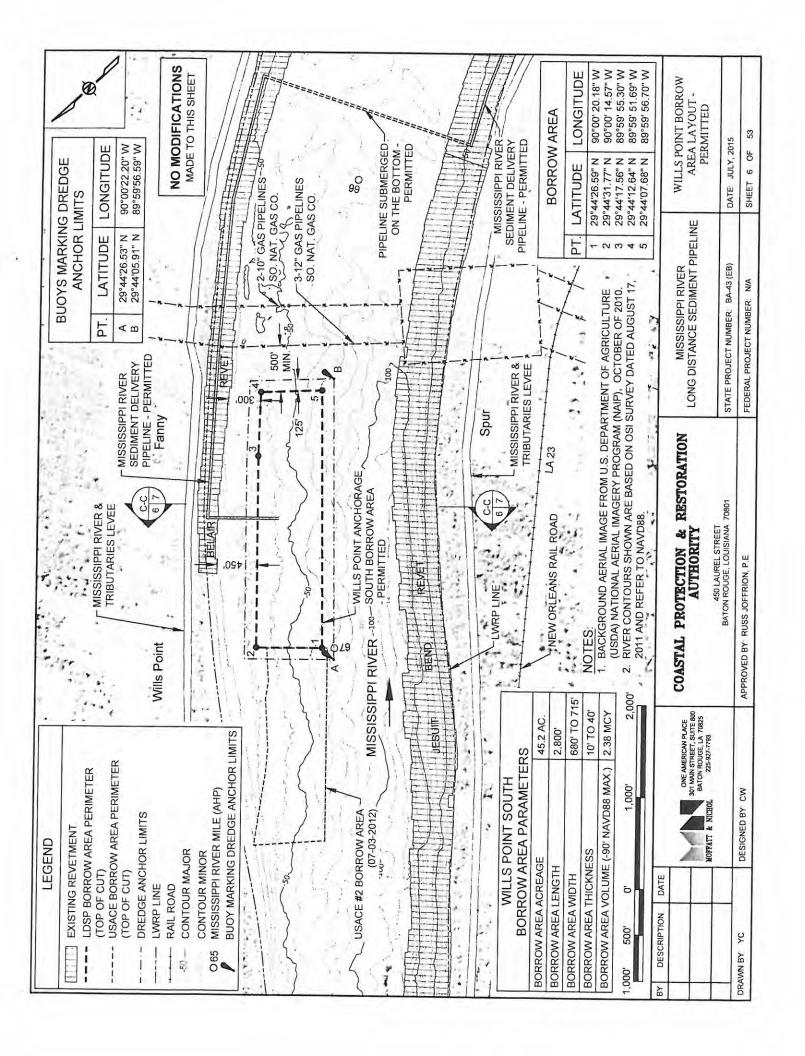
BA-43 (EB)

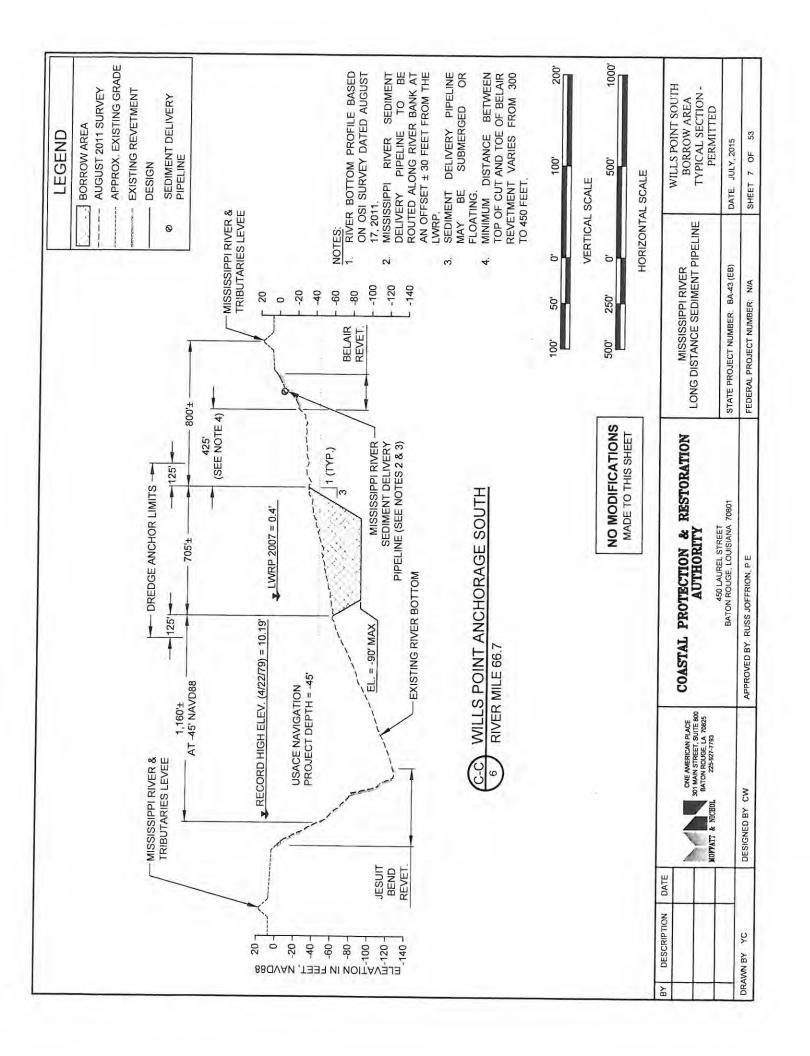
FEDERAL PROJECT NUMBER: N/A STATE PROJECT NUMBER:

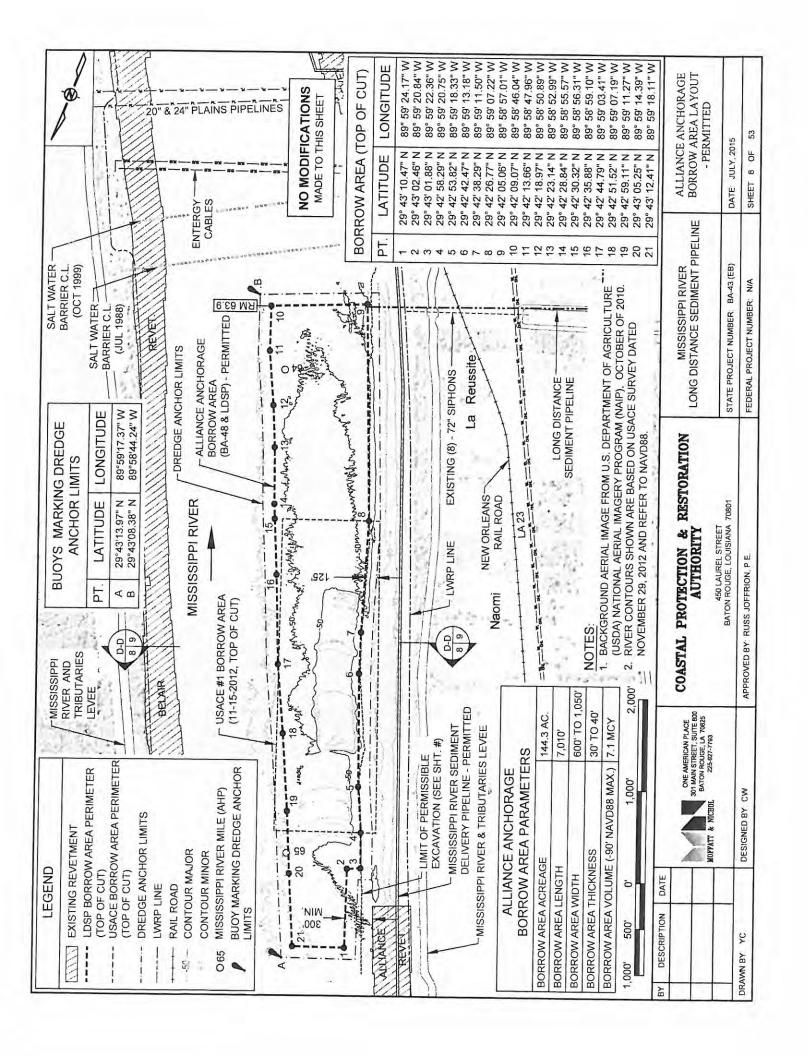
GENERAL AND

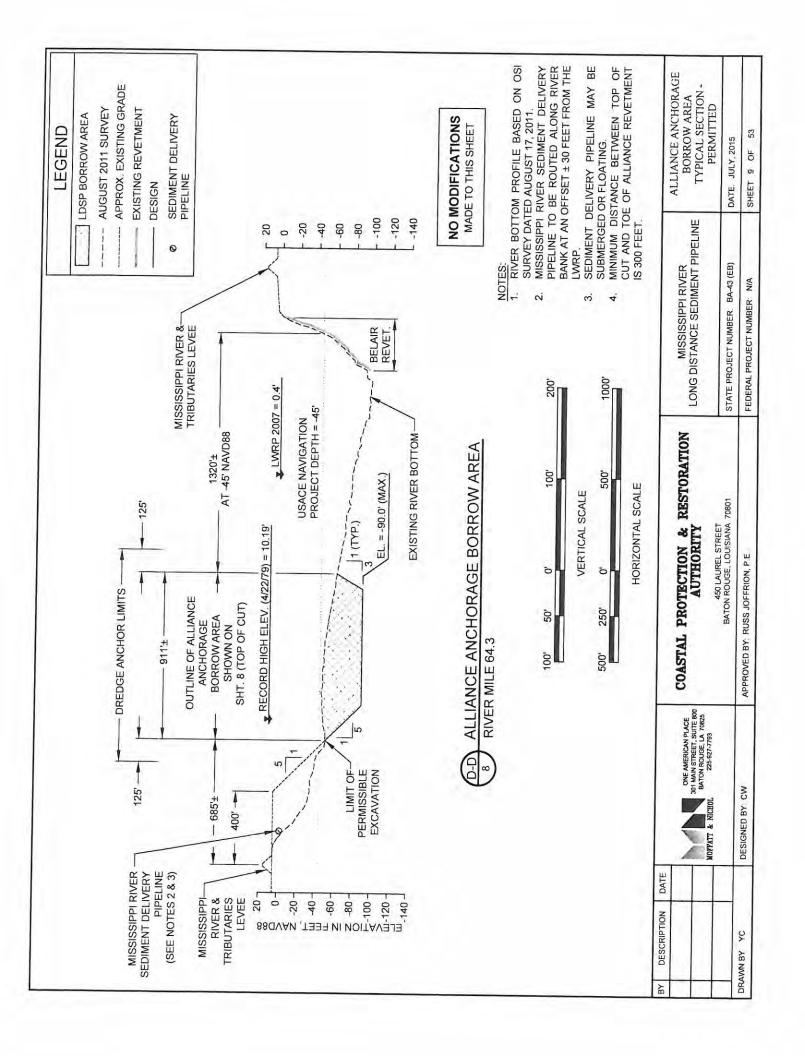


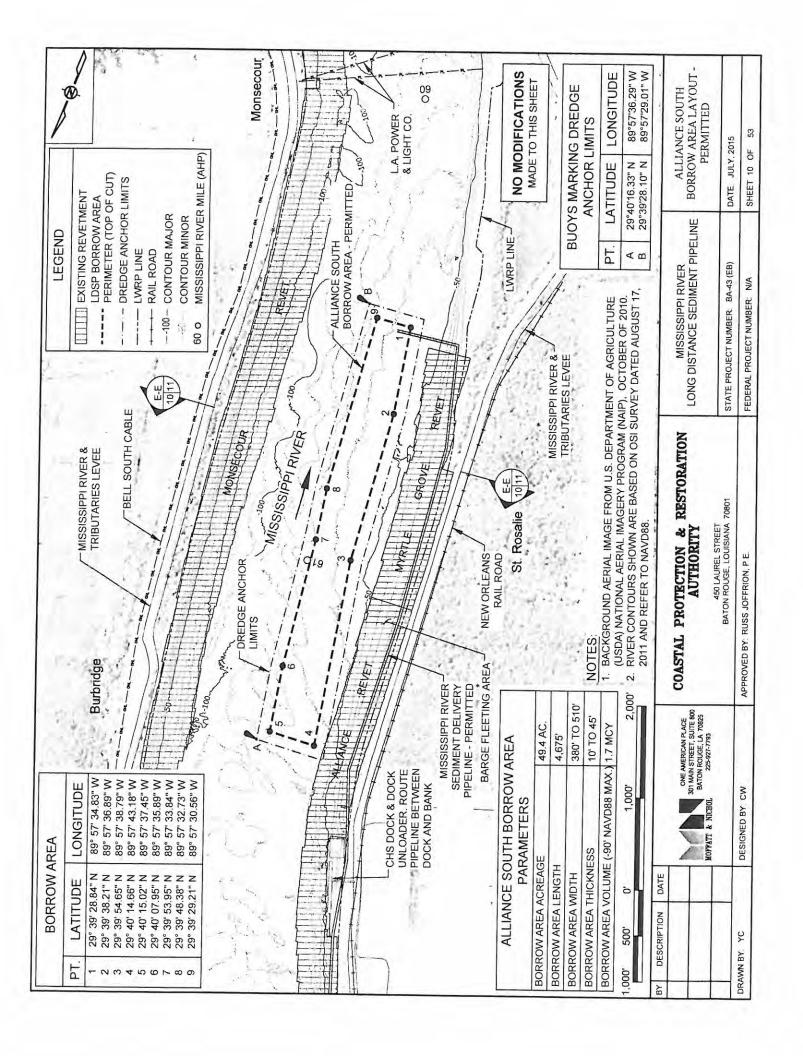


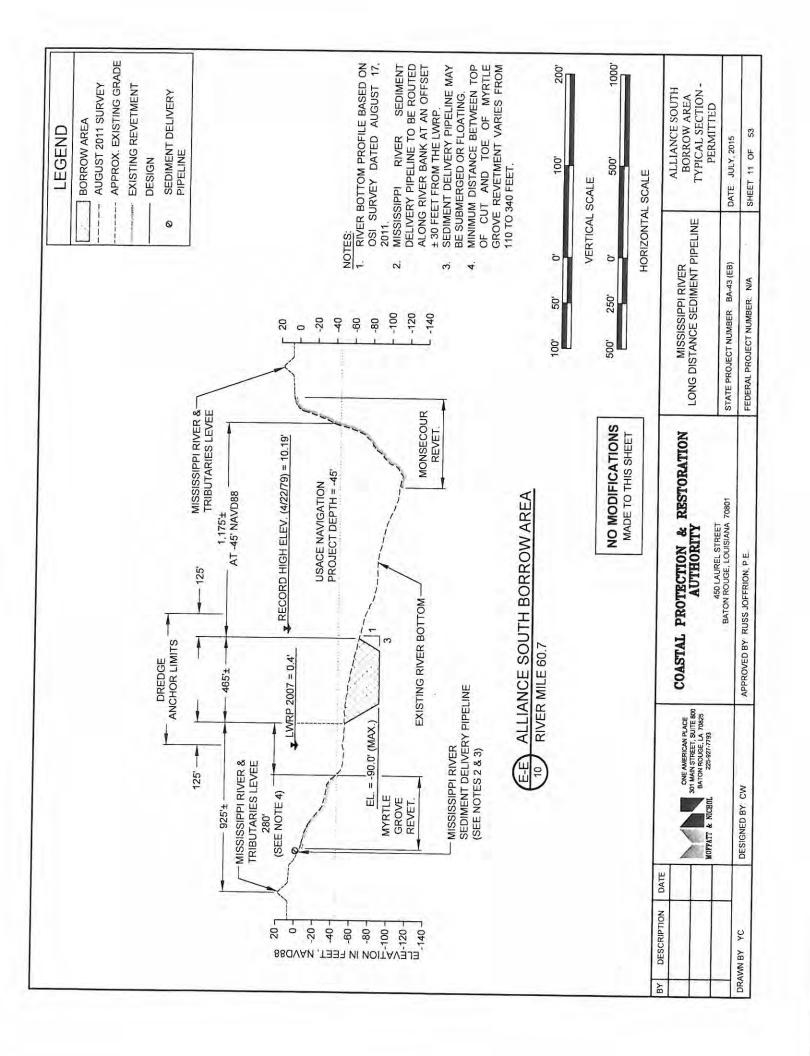






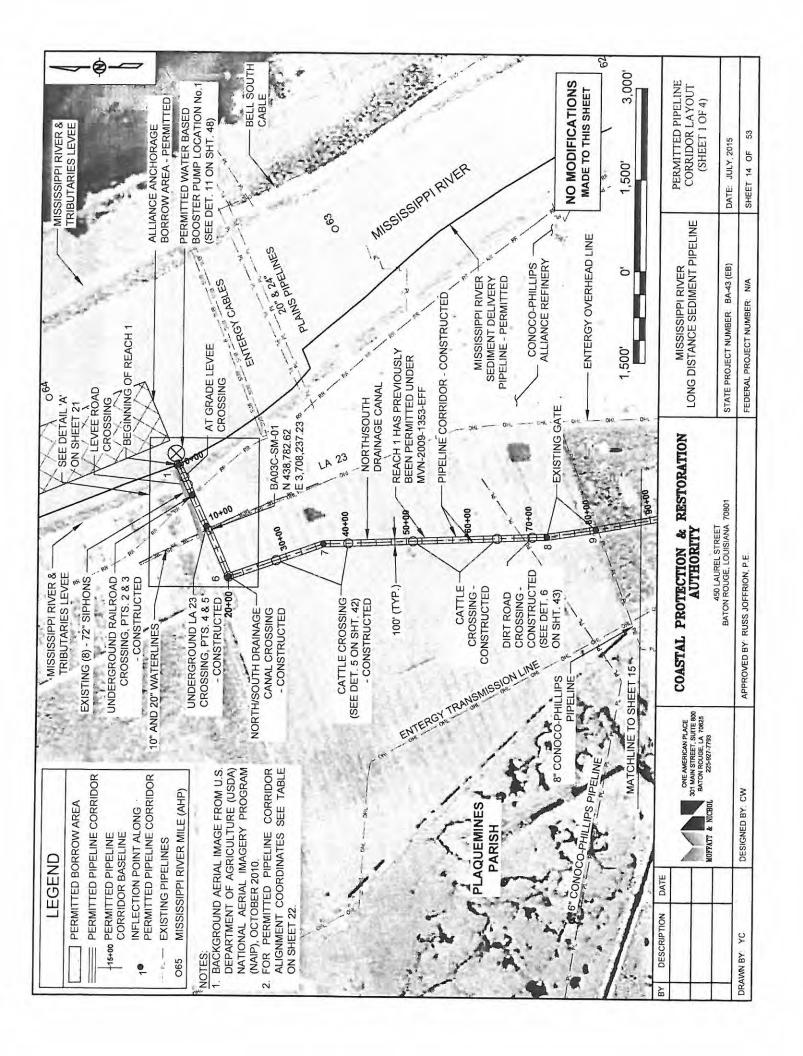


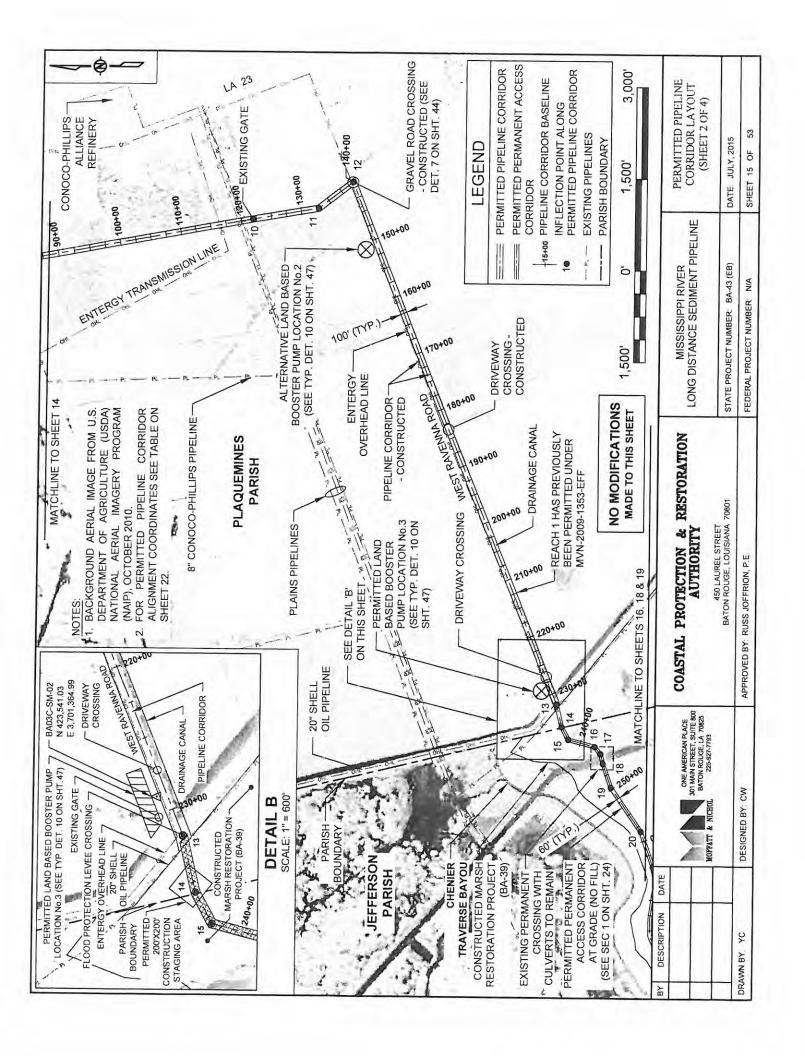


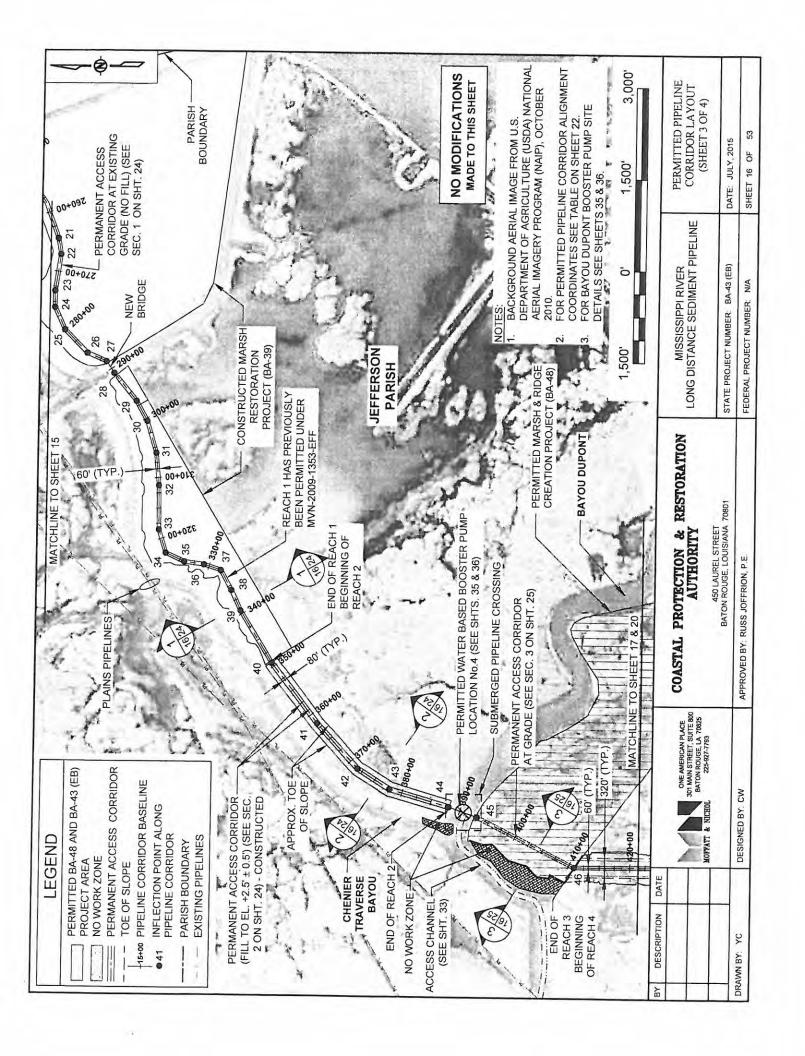


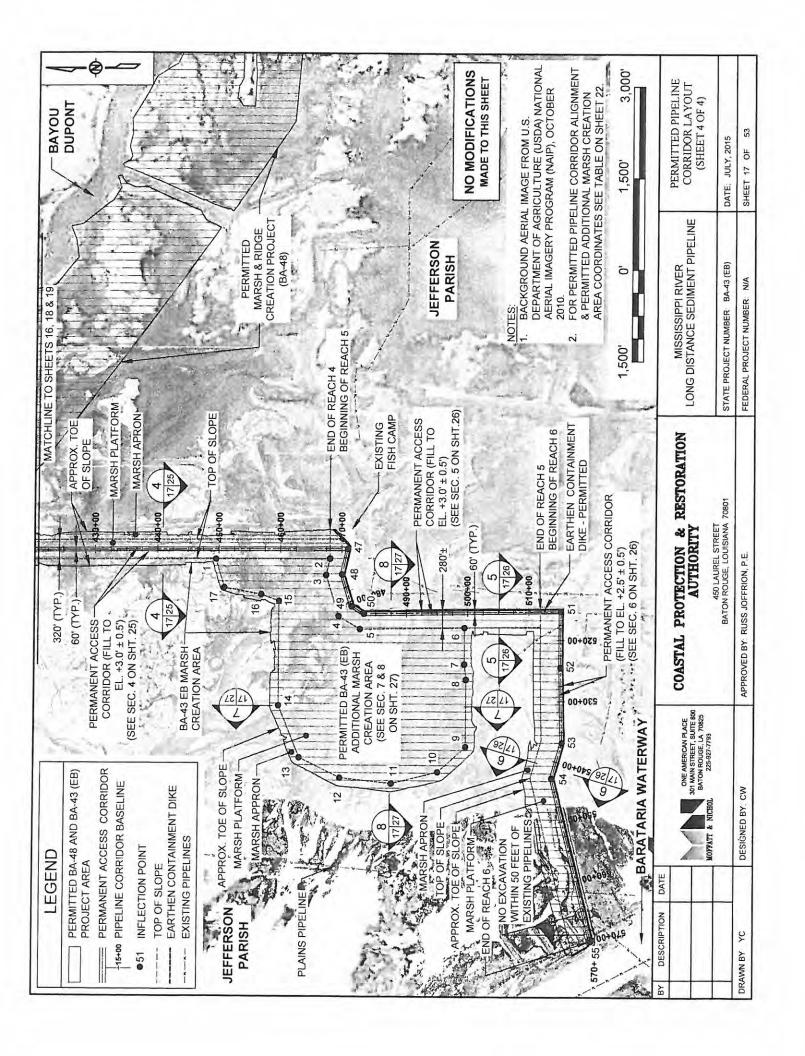
Y DES	DESCRIPTION DATE	DATE				
			ONE AMERICAN PLACE 301 MANN STREET, SUITE 800 BATON ROUGE, LA 78825	COASTAL PROTECTION & RESTORATION AUTHORITY	MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	MYRTLE GROVE BORROW AREA LAYOUT
			MOFFATT & NICHOL 225-927-7793	450 LAUREL STREET		- Olvil i ED
				BATON ROUGE, LOUISIANA 70801	STATE PROJECT NUMBER: BA-43 (EB)	DATE: JULY 2015
DRAWN BY YC	YC		DESIGNED BY CW	יייייייייייייייייייייייייייייייייייייי		
				APPROVED BY RUSS JOFFRION, P.E.	FEDERAL PROJECT NUMBER: N/A	SHEET 12 OF 53

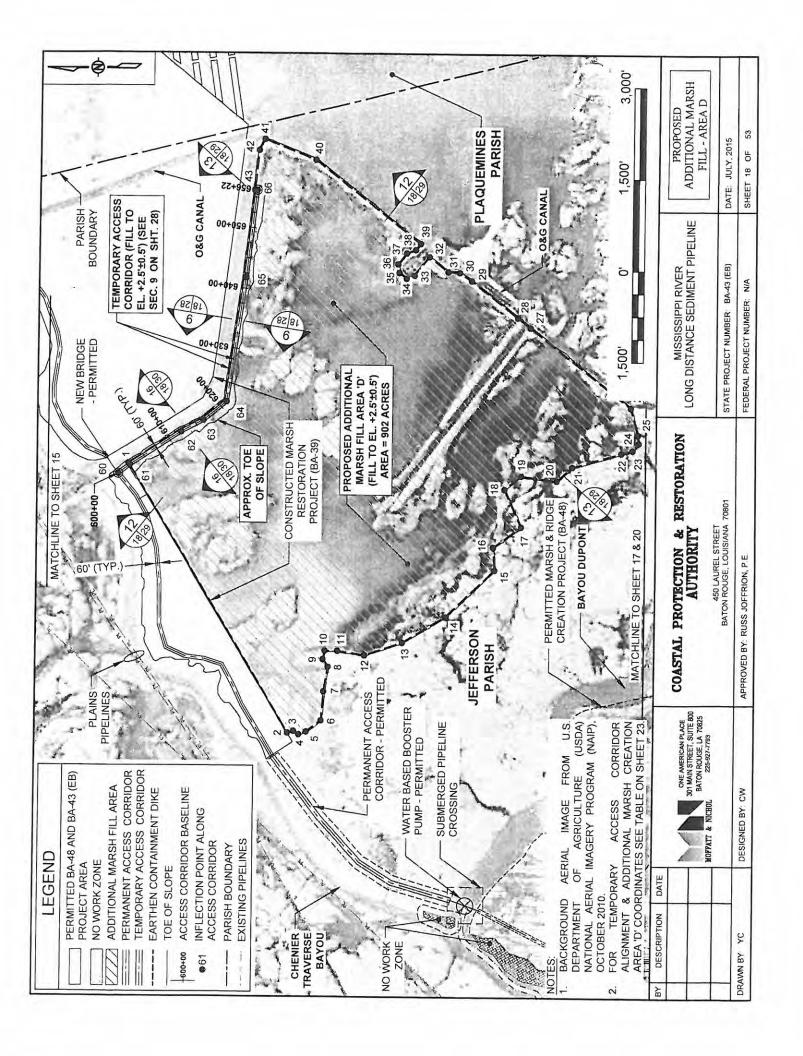
Y DESCRIPTION DATE	DATE				
		301 MA BATO	COASTAL PROTECTION & RESTORATION AUTHORITY	MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	MYRTLE GROVE BORROW AREA TYPICAL SECTION -
		MOFFATT & NICHOL 225-927-7793	450 LAUREL STREET		OMITTED
			BATON ROUGE, LOUISIANA 70801	STATE PROJECT NUMBER. BA-43 (EB)	DATE: JULY, 2015
DRAWN BY YC		DESIGNED BY: CW	APPROVED BY. RUSS JOFFRION, P.E.	FEDERAL PROJECT NUMBER: N/A	SHEET 13 OF 53

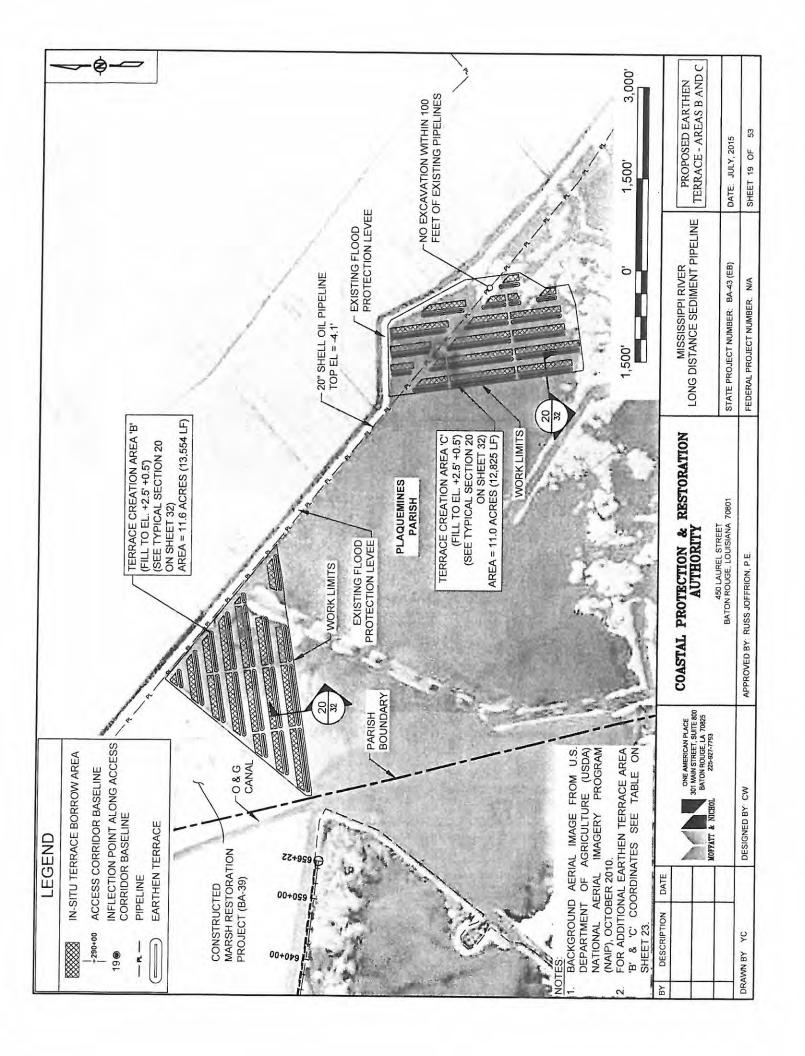


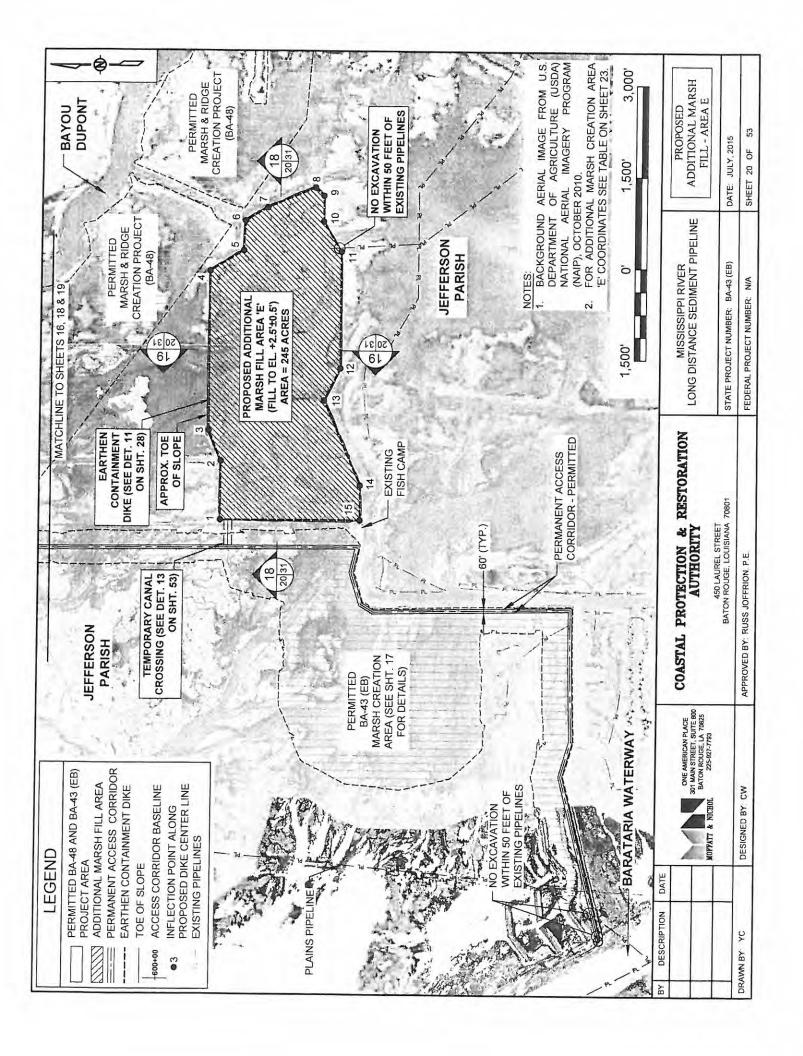


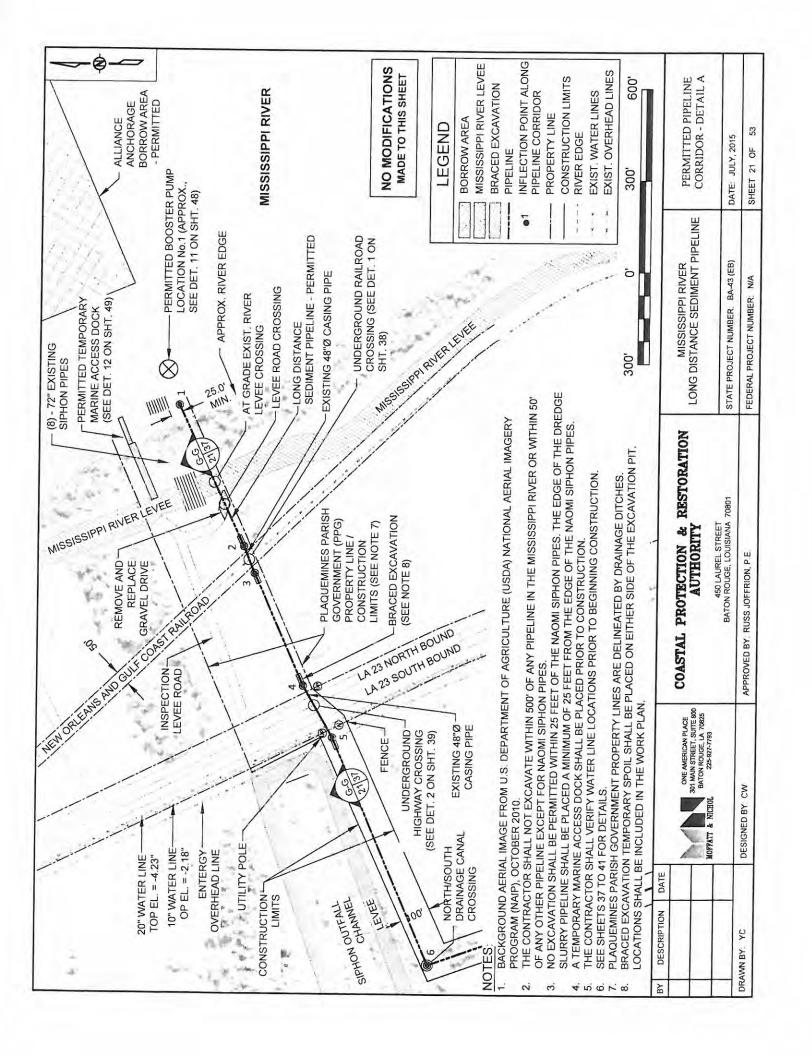












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LATITU	-	36	29° 36' 49	36	36	36	36	36	29° 36' 1	36			PERMIT	ADDITION/	(TOP	5	LATITU	1000	29-37-09	36.	29° 36′ 50	36	36	, 36,	36,	36,	36,	36,	36	36	à	36,	37	0		DO	_ (BOOSIER	I ATITI		29° 42' 04.		29° 39' 29.
PT	46	47	48	49	20	51	25	53	54	22				V			PT		- r	4 0	0 4	2	9	_	œ	6	9	7	12	13	4	15	16	17			-	n	TO	-	1	7	က
LONGITUDE	9° 59' 01.44"	9° 59' 06.	. 59' 07.71"	59' 11.90"	59, 13,82"	59, 22.27"	59' 16.32"	59' 15.22"	. 59' 13.92"	. 29, 06.00"	59' 04.03"	58' 59.20"	. 00' 36.31"	00' 40.52"	00' 42.84"	00' 44.18"	00' 45.51"	00' 47.36"	00' 51.73"	00 59.89"	90° 01' 06.43" W	011 16 15"	01' 19.20"	01'23.40"	01' 27.77"	37"	90° 01' 31.56" W	.01,	90° 01' 40.53" W	.10	90° 01' 52.52" W	02' 00.71"	02, 05	02, 06,	05	02' 08.26"	90° 02' 11.97" W	02' 15.	02' 25.47"		90° 02' 45.01" W	02' 48	90° 02' 52.14" W
LATITUDE	42' 03.6	9° 42'	9° 42' 01.24"	9° 41' 59.67"	41 58.73"	9, 41, 55.6	41.40.40	41.04.2	40, 56.2	9° 40' 16.3	40,05	9° 40' 00.10"	9° 39' 27.14"	9° 39' 26.32"	39' 25.26"	9° 39' 21.00"	39, 20.08"	39' 19.67"	39' 18.35"	29 39 13.49 N	30,11	39' 12.07"	39' 12.08"	39' 10.	39,06	39, 03	39, 05	38, 28	38,	38,	38, 22	38	38, 54	38, 21	38,48	38' 45.29"	9° 38' 43	9° 38' 42	9°38'37.0	9° 38' 29.7	9° 38' 23.	.38, 17,99"	29° 38' 08.30" N
PT.	,-	7	m ·	4 1	S (0 1	_ (00	6	0	=	12	13	4	15	9	17	20	19	2 5	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

	The second secon			-
47.94" N	90° 03' 03.37" W	-	29° 38' 33.79" N	-
43"	"97 FU 'FU 'D	c	0° 38' 36 1	_
44	0° 03' 08 53"	1 (7)	8 35 2	_
92"	03' 14 40"	4	9° 38' 33 34"	-
93"	0 03' 15 80"	· u	"30 55 '95 '0	
300	00.01 15.00) u	20 33.00	
9 6	03 13.64	0 1	9 38 32.07	_
000	03 20.04	- 0	9 38 30.85	_
6	03, 39,98"	œ	38, 30.78"	_
.72"	0° 03' 46.51"	6	38' 28.67"	
9.48" N	90° 04' 16.78" W	10	38' 28.43"	
		#	9° 38' 30.26"	_
1	1	12	29° 38' 33.49" N	_
		13	9° 38' 34.70"	
NAL MA	MARSH AREA	14	9° 38' 35.21"	_
OF SI	OPF	15	38' 34.77"	_
	(1)	16	38' 33.52"	
UDE	LONGITUDE	17	38'31.	
1	100 000 00	48	38' 24.42"	
4 (0- 03- 05-44"	19	38, 2	_
20	03.05.55	20	38' 17.	_
5	03. 08.60"	21	29° 38' 16.07" N	
	03.16.24	22	29° 38' 14.53" N	
53	03' 18.64"	23		
7/	03' 18.55"	24	38' 11.	
	03. 25.34"	25	29° 38' 11.26" N	
55	03. 28.15"	56	38' 10.59"	
0	03.40.60	27	38' 08.55"	-
11	03 45.20	28	38' 07.	
N 00.14	90 03 47.24 W	59	38, 05, 95"	
Ď R	03 40.13	8	38 04.23"	
	03 42.32	31	38' 01.33"	_
0 0	02 32.70	32	37' 59.26"	
17.	03 13.33	33	37' 58.56"	
3 4	00 12.	¥	37' 58.67"	
Ŧ.	#1.01 co o	35	37' 59.61"	
		36	38 00,16	
PERMITT	ED	200	9 37 59.91"	
PUMP	OCATIONS	200	9-37-58.56	
	5	65	9° 37' 56.92"	
UDE	LONGITUDE	04	37. 56.06	
1	20 101 00	41	9° 37' 55.53"	
10	9-59-00.12"	45	9° 37' 53.79"	
2	11.71"	43	9° 37' 52.8	
27 N	0° 00' 33.79"	4	7' 52.63"	
	90° 02' 53.14" W	45	9° 37' 52 7	

03' 12.51" W
03' 10.48" W
03' 09.40" W
03' 08.75" W
03' 08.22" W
03' 05.45" W
03' 05.47" W
03' 02.54" W
03' 02.54" W
03' 02.54" W
03' 02.55" W
03' 02' 58.86" W

29° 37' 53.05" N
29° 37' 54.31" N
29° 37' 54.31" N
29° 37' 56.11" N
29° 37' 59.11" N
29° 38' 00.92" N
29° 38' 00.92" N
29° 38' 04.97" N
29° 38' 06.50" N

LONGITUDE

LATITUDE

PT.

LONGITUDE

LATITUDE

PT

LONGITUDE

DE

ACCESS CHANNEL ALIGNMENT - PERMITTED

PERMITTED BA-43 (EB)	JOITIONAL MARSH AREA	(TOP OF SLOPE)

PT.	LATITUDE	LONGITUDE
-	29° 37' 09.74" N	90° 03' 05.44" W
2	29° 36' 51.36" N	.55.
m	29° 36' 52.00" N	0
4	29° 36' 50.03" N	90° 03' 16.24" W
2	29° 36' 46.63" N	90° 03' 18.64" W
9	29° 36' 29.72" N	90° 03' 18.55" W
7	29° 36' 29.79" N	90° 03' 25.34" W
œ	29° 36' 29.53" N	90° 03' 28.15" W
6	29° 36' 29.65" N	90° 03' 40.60" W
10	29° 36' 34.21" N	90° 03' 45.20" W
7	29° 36' 41.70" N	90° 03' 47.24" W
12	29° 36' 49.99" N	90° 03' 46.13" W
13	29° 36' 56.56" N	90° 03' 42.32" W
14	29° 36' 59.84" N	.07.
15	29° 36' 59.65" N	90° 03' 13.33" W
16	29° 37' 02.51" N	90° 03' 12.08" W
17	29° 37' 08.41" N	90° 03' 10,74" W

PUMP LOCATIONS RMITTED

1		
_	LATITUDE	LONGITUDE
1 29°	9 42' 04.01" N	89° 59' 00.12" W
2 25	9° 39' 58.03" N	89° 59' 11.71" W
3 26	29° 39' 29.57" N	90° 00' 33.79" W
4 29	38' 05.92" N	90° 02' 53.14" W

NO MODIFICATIONS

LONG DIS.
RESTORATION
#E
PROTECTION AUTHORI
COASTAL

ONE AMERICAN PLACE 301 MAIN STREET, SUITE 800 BATON ROUGE, LA 70825 225-827-7793

MOFFATT & NICHO

DATE

DESCRIPTION

BY

MISSISSIPPI RIVER TANCE SEDIMENT PIPELINE

70	1
450 LAUREL STREET BATON ROUGE, LOUISIANA 7	1000
	1 3

ui,
S JOFFRION, P.E.
BY RUSS
ED BY
APPROVED

S

DESIGNED BY

XC

DRAWN BY

ON ROUGE, LOUISIANA 7080	1801
To Moldato	

|--|--|

MADE TO THIS SHEET

	DATE JULY, 2
	BA-43 (EB)
1	ER

JULY, 2015	1
DATE: JU	

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15	53
Y, 2015	PP.
JULY	22
DATE	SHEET

6
7, 2015
JULY,
DATE

ALIGNMENT TABLES PERMITTED PROJECT

BA-164 MARSH CREATION AREA B - TERRACE CENTERLINE

10	STARI	AK!	ũ	END
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE
-	29°38'41,17"N	90°00'27.04"W	29°38'42.51"N	90°00'15,87"W
2	29°38'42.66"N	90°00'14.64"W	29°38'43.93"N	90°00'04'05"W
2	29°38'44.08"N	90°00'02.78"W	29°38'45.36"N	89°59'52.17"W
4	29°38'45.50"N	W.26.03'89'88	29°38'46.48"N	89°59'42.81"W
2	29°38'44.56"N	90°00'23.81"W	29°38'45.45"N	90°00'16.34"W
9	29°38'45.60"N	90°00'15.10"W	29°38'46.87"N	90°00'04.51"W
7	29°38'47.03"N	90°00'03.24"W	29°38'48.30"N	89°59'52.63"W
80	29°38'48.45"N	89°59'51.39"W	29°38'49 05"N	89°59'46.38"W
o	29°38'47.94"N	90°00'20.57"W	29°38'48.40"N	90°00'16.80"W
0	29°38'48.54"N	90°00'15.56"W	29°38'49.82"N	90°00'04 97"W
-	29°38'49 97"N	W"07.E0'00°09	29°38'51 24"N	89°59'53 09"W
2	29°38'51.39"N	89°59'51.86"W	29°38'51.62"N	89°59'49.95"W
3	29°38'51.42"N	90°00'16.59"W	29°38'52.76"N	90°00'05.43"W
14	29°38'52.91"N	90°00°04.16"W	29°38'54.19"N	89°59'53.50"W
15	29°38'54.72"N	90°00'14.09"W	29°38'55.70"N	W"06,50'00°08
9	29°38'55.85"N	90°00'04,62"W	29°38'56.76"N	W60 259.58
1	29°38'58.10"N	90°00'10.85"W	29°38'59,33"N	W"99,00'00°08
80	29°39'01.49"N	90°00'07.61"W	29°39'01 90"N	W"50 NO"00"0P

BA-164 MARSH CREATION

1	ST	START	B	END
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE
	29°38'24.63"N	89°59'12.95"W	29°38'18.73"N	89°59'12.07"W
	29°38'17.65"N	W"19,11,91"W	29°38'07.83"N	89°59'10 45"W
	29°38'06.75"N	89°59'10.29"W	29°37'56.94"N	89°59'08.83"W
	29°38'27.23"N	W.,06,60,65°88	29°38'24.19"N	89°59'09.45"W
	29°38'21.35"N	89°59'09.03"W	29°38'19,11"N	W.07.80,65.68
9	29°38'18.03"N	89°59'08.54"W	29°38'08.22"N	W"80.70'92'98
	29°38'07 14"N	W.Z6.90.65.68	29°37'57.32"N	89°59'05.46"W
8	29°38'27.29"N	89°59'06.49"W	29°38'21.37"N	W09.50,65.68
6	29°38'18.42"N	89°59'05.16"W	29°38'08.60"N	89°59'03,71"W
10	29°38'07.52"N	89°59'03.55"W	29°37'57.70"N	89°59'02.09"W
1	29°38'27.33"N	W"30.50'93°98	29°38'18.55"N	89°59'01.76"W
12	29°38'15.71"N	89°59'01,34"W	29°38'08.98"N	89°59'00.34"W
13	29°38'07.90"N	89°59'00.18"W	29°37'58.08"N	89°58'58.72"W
14	29°38'22.41"N	W.06.85.85.68	29°38'15.74"N	89°58'57.91"W
15	29°38'12.91"N	89°58'57.49"W	29°38'09.36"N	W.96.96.86
16	29°38'08.28"N	89°58'56.81"W	29°37'59.11"N	89°58'55.44"W
1	29°38'15.15"N	89°58'54.40"W	29°38'12.91"N	89°58'54 06"W
18	29°38'10.09"N	89°58'53,64"W	29°38'07 14"N	89°58'53 21"W

MARSH CREATION AREA 'D' (CENTERLINE OF EARTHEN CONTAINMENT DIKE)

	AIIIU	
	29°39'00.30" N	.89
	- 1	90°02'20 66" W
	0	1.31"
	38'31	-
7		90°02'18.78" W
	29°38'28.86" N	90°02'13.40" W
	9°38'28.	90°02'08.82" W
	6	90°02'07.40" W
9	29°38'28.65" N	.85"
	9.9	90°02'05.86" W
2	29°38'22.28" N	90°02'06.68" W
6	29°38'16.15" N	90°02'04.39" W
	29°38'09 19" N	90°01'59.73" W
0	29°38'01.14" N	:0
W. /	ຫ	1'46.89"
	29°37'56.82" N	15"
8	29"37'59.49" N	
	29"37'56.80" N	90°01'33 65" W
50	29°37'50.98" N	
7.	29°37'48.45" N	50
	29°37'40.54" N	90°01'29,51" W
	29°37'38.71" N	90°01'29.01" W
_	37	1,27.59"
_	37	90°01'26.06" W
		90°01'21.02" W
27	Τ.	90°01'06.06" W
-	37.57.2	4.16"
	29°38'04.72" N	90°00'57.24" W
	9	90°00'55.72" W
-	29°38'08.55" N	90°00'55.53" W
_	9°38'11.	90°00'52.73" W
-	3	16"
-	on .	90°00'56.72" W
-	29°38'16.49" N	90°00'55.63" W
	29°38'16.69" N	90°00'54.04" W
1	15	90°00'52.02" W
-	29°38'13.80" N	90°00'51.40" W
-	29°38'13.01" N	90°00'50.27" W
	29°38'29.89" N	90°00'34.66" W
-	29°38'38.21" N	
-	29°38'39.13" N	
-		1

MARSH CREATION AREA 'E' (CENTERLINE OF EARTHEN CONTAINMENT DIKE)

90"02'58.45"	
90°02'47	
90°02'41	
90°02'1	
0.06	
06	
90°(
90°01'56.91"	
900	
.06	
90%	V
90°02'30	
90°02'36	
90°02'52.	
90	

TEMPORARY ACCESS CORRIDOR ALIGNMENT

29°39'0 29°39'0 29°38'3 29°38'4 29°38'4 29°38'4	UDE LONGITUDE	11.91" N 90°01'32.67" W	Nº 11" N 90°01'31.05" W	51.83" N 90°01'24.96" W	18,15" N 90°01'22.83" W	14.46" N 90°01'19,43" W	N62	14 "7" N "74 PI
	LATITU	29°39'01	29°39'00	29°38'51	29°38'48,15"	29°38'44.46"	29°38'41	29°38'39 4

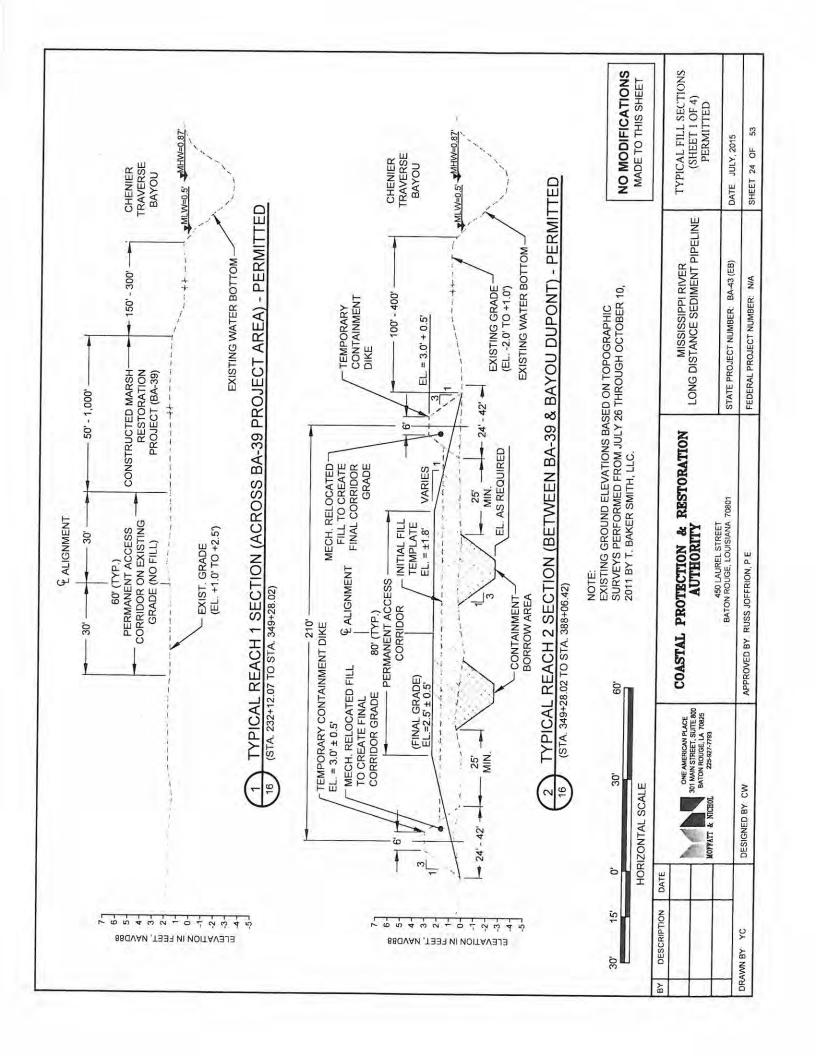
	COASTAL PROTECTION AUTHOR	450 LAUREL ST BATON ROUGE, LOUIS	APPROVED BY: RUSS JOFFRION, P.E.
	ONE 301 MAI	MOFFATT & NICHOL 225-927-7793	DESIGNED BY: CW
DATE			
DESCRIPTION DATE			DRAWN BY. YC.
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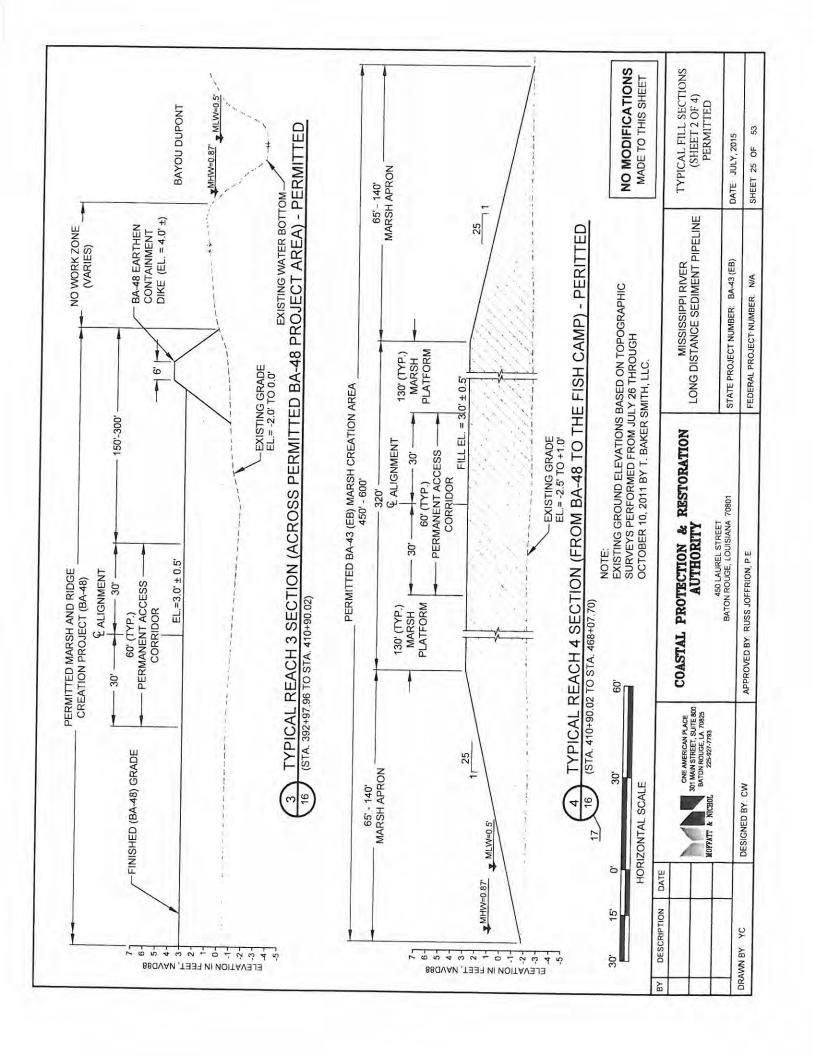
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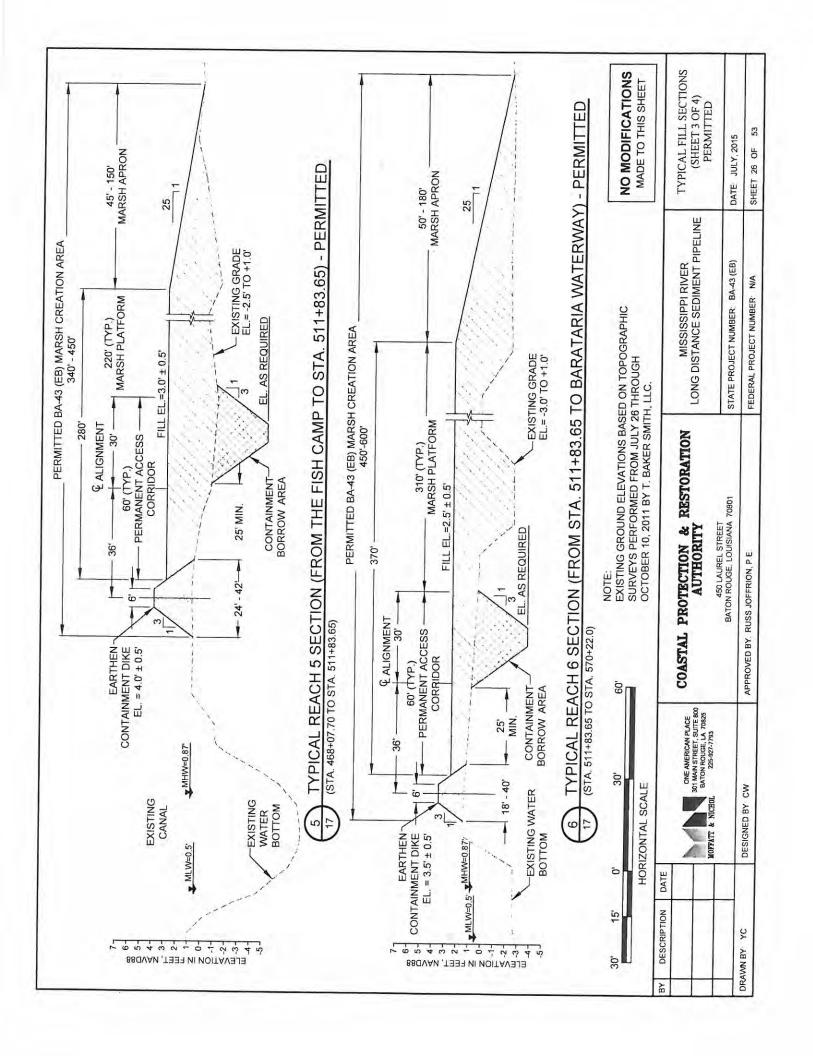
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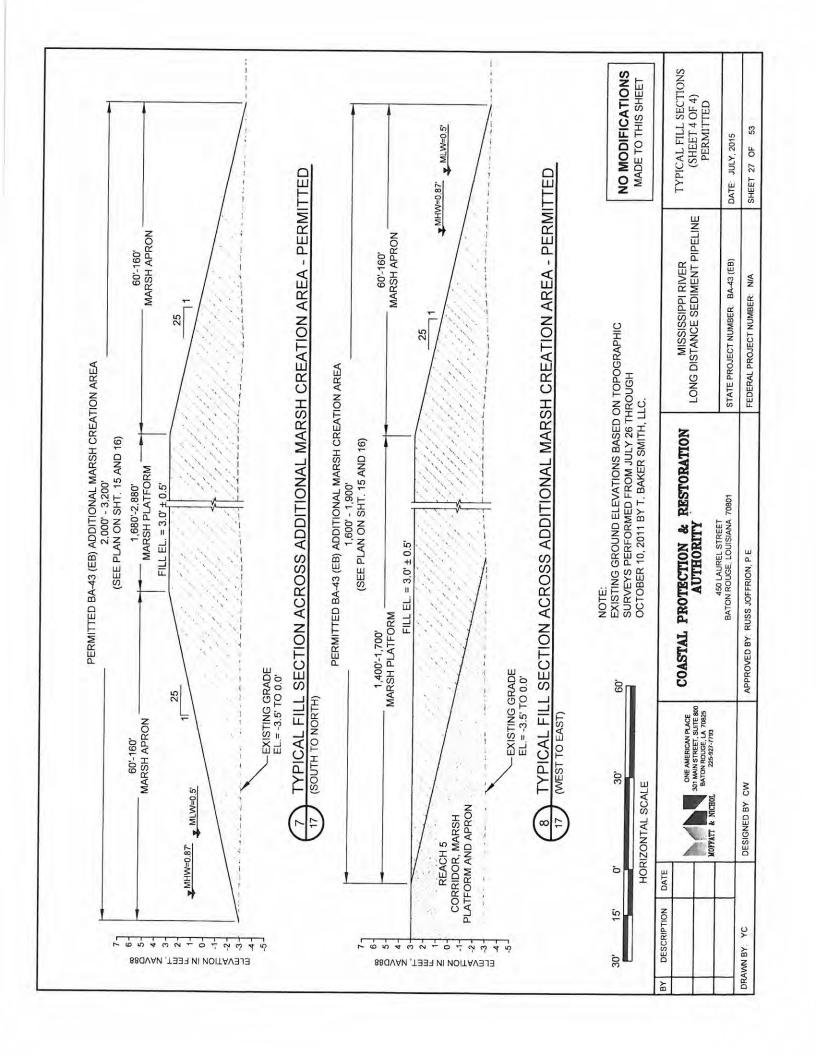
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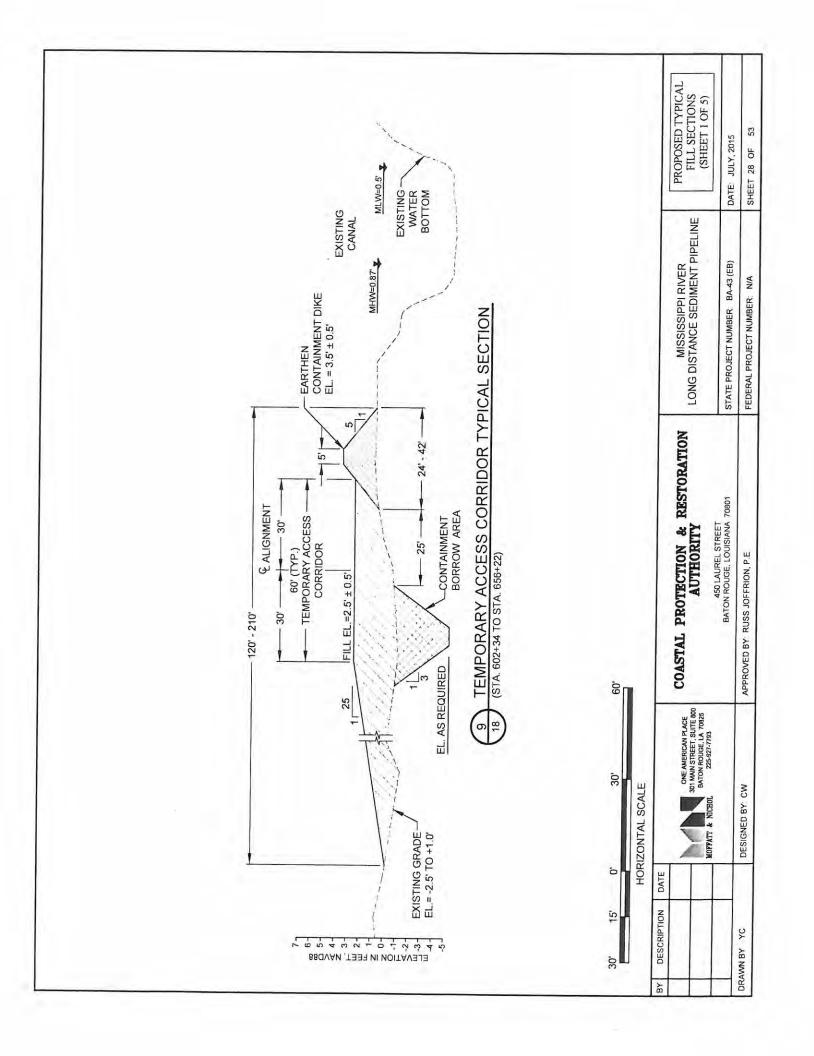
PROPOSED PROJECT ALIGNMENT TABLES	DATE: JULY, 2015	SHEET 23 OF 53
MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE	STATE PROJECT NUMBER: BA-43 (EB)	FEDERAL PROJECT NUMBER: N/A

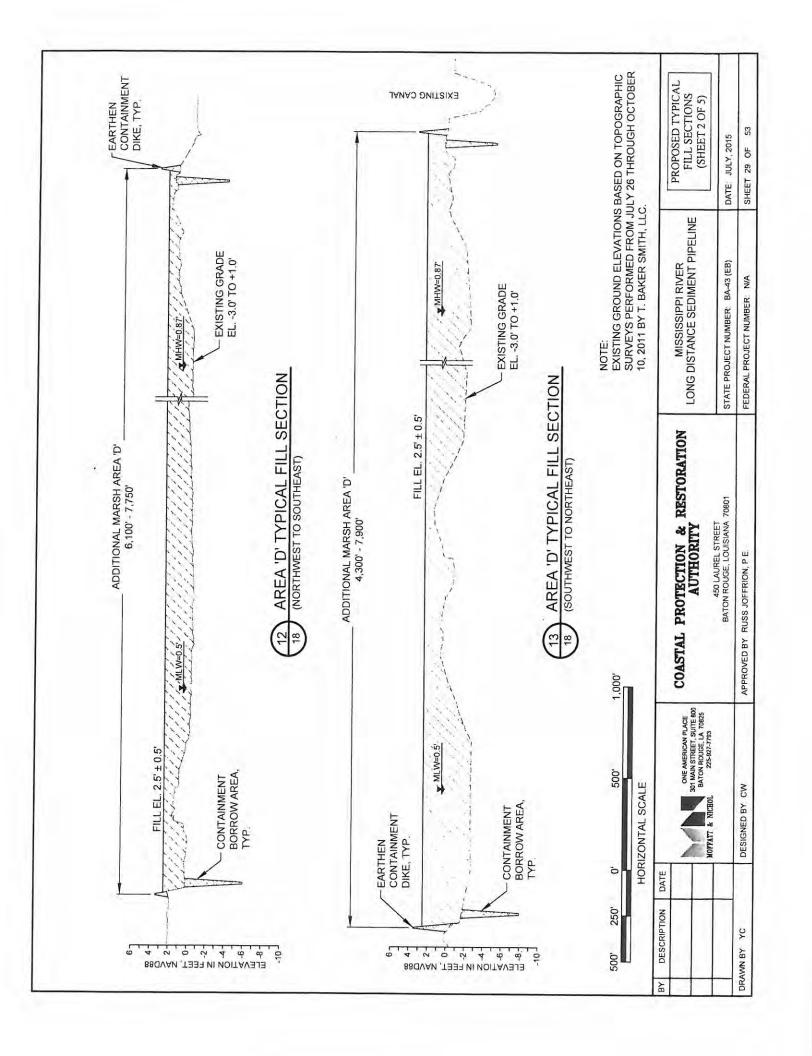


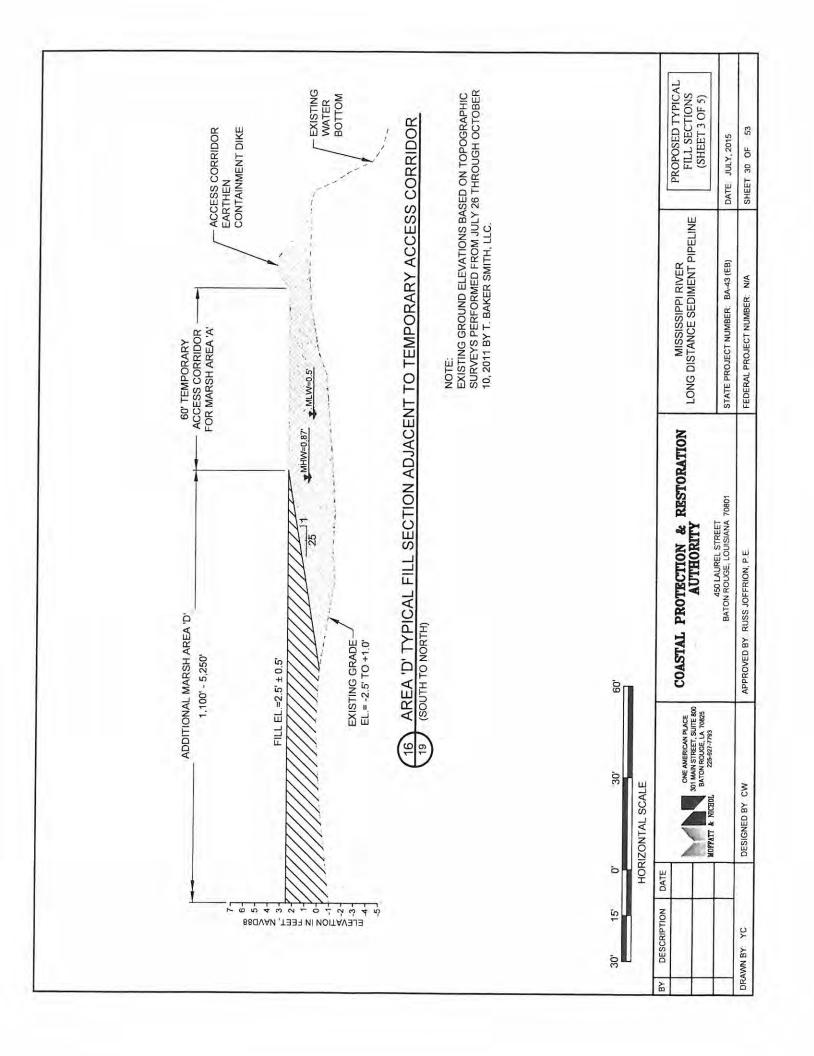


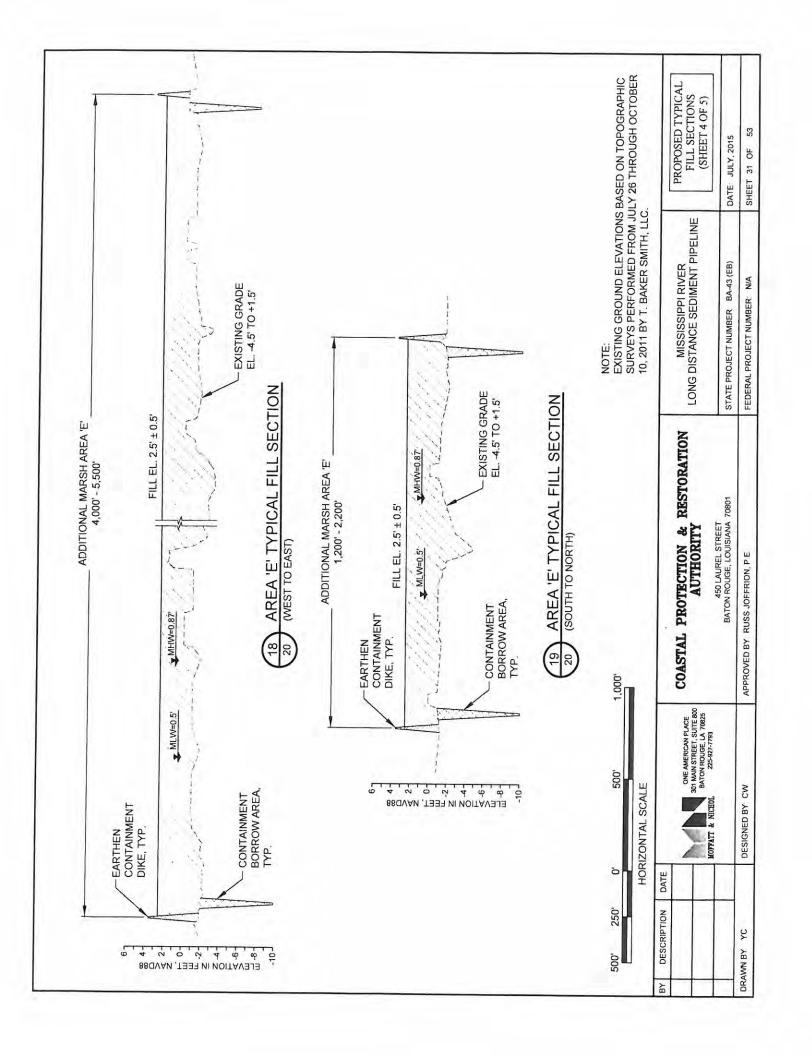


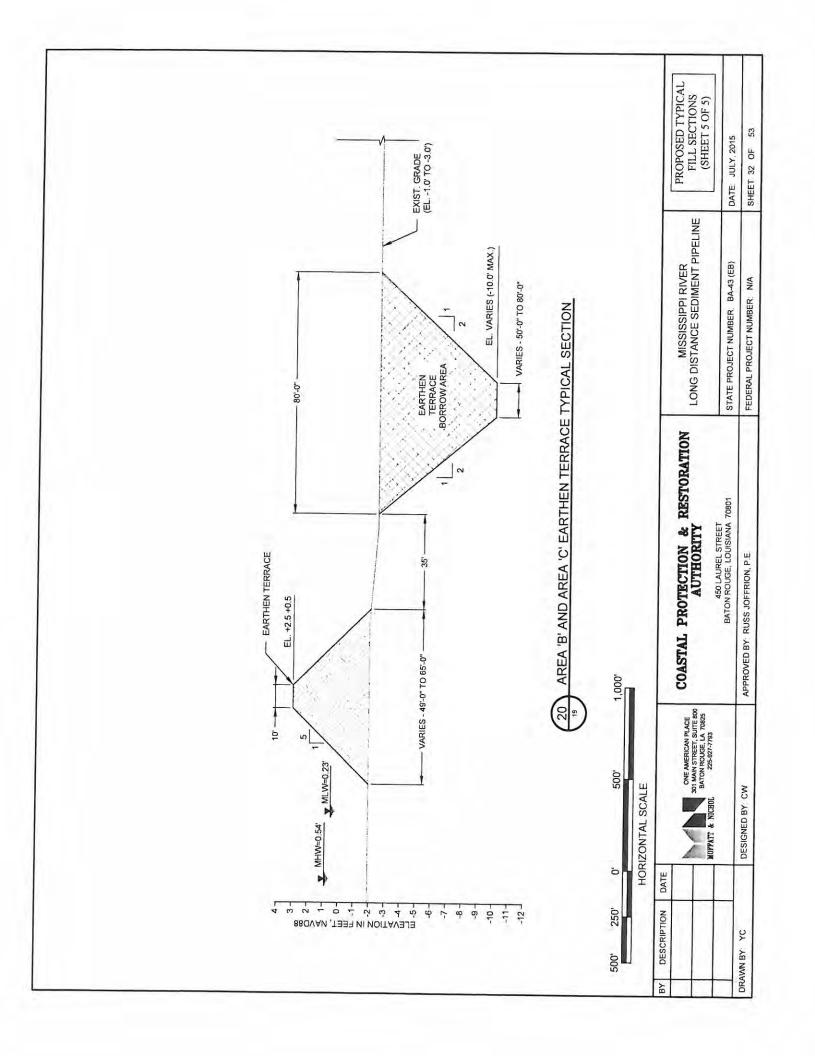


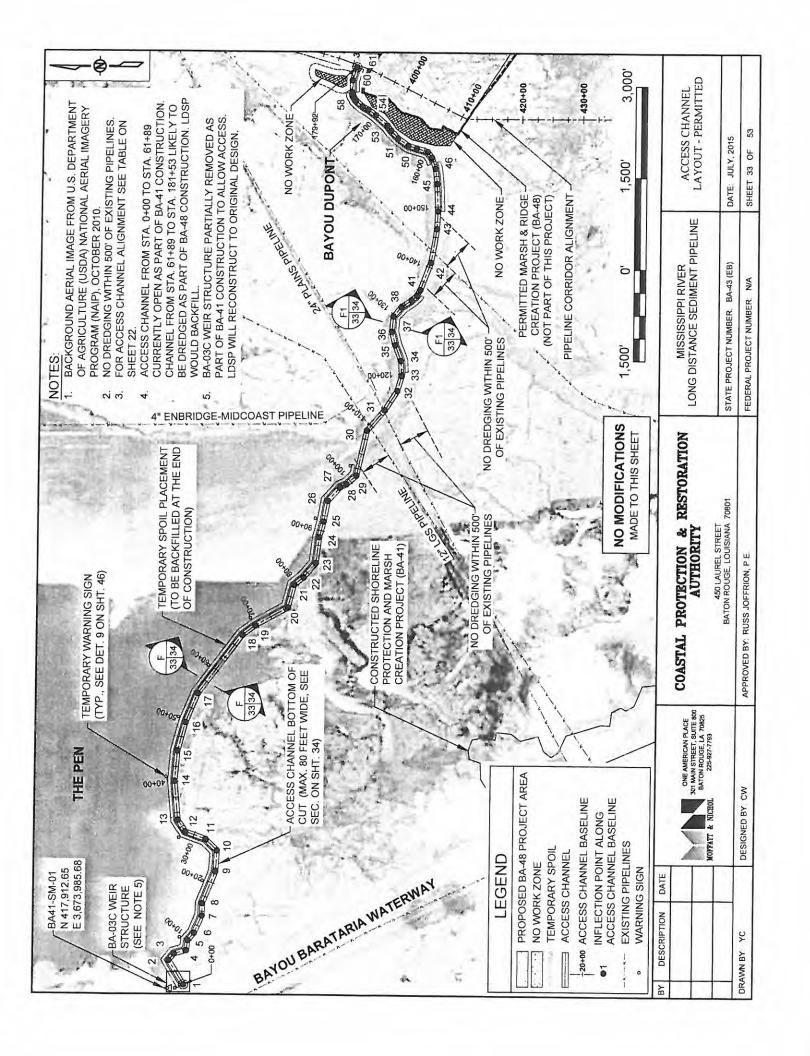


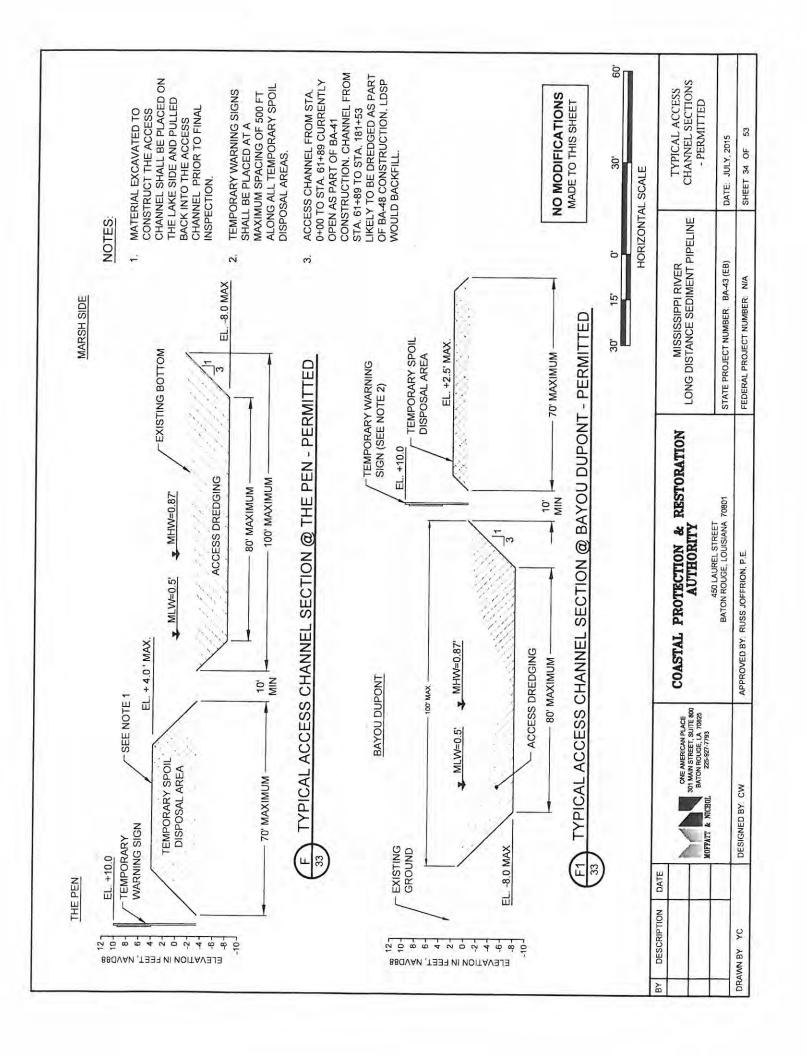


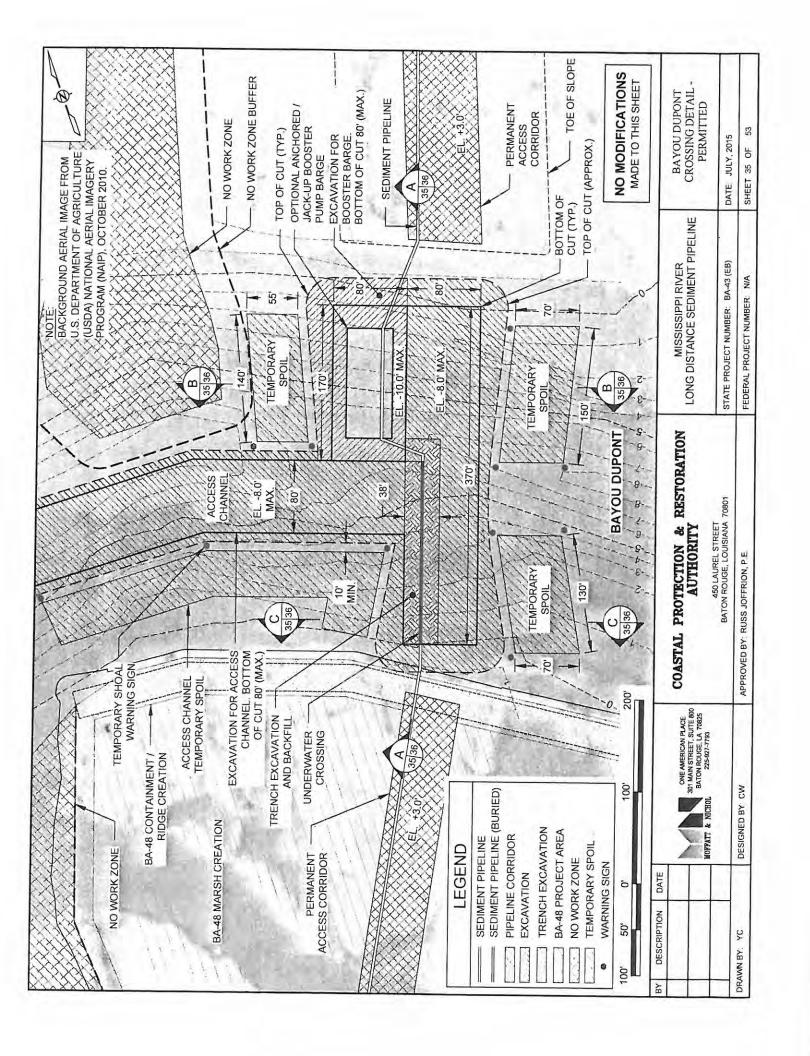


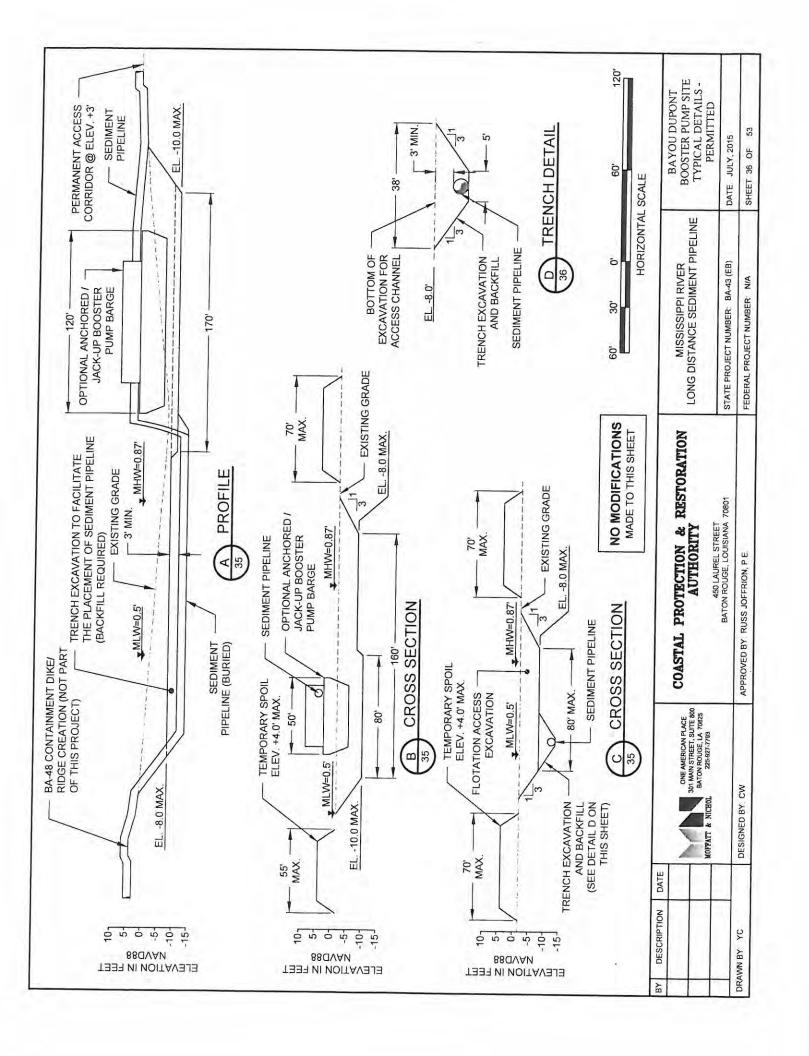


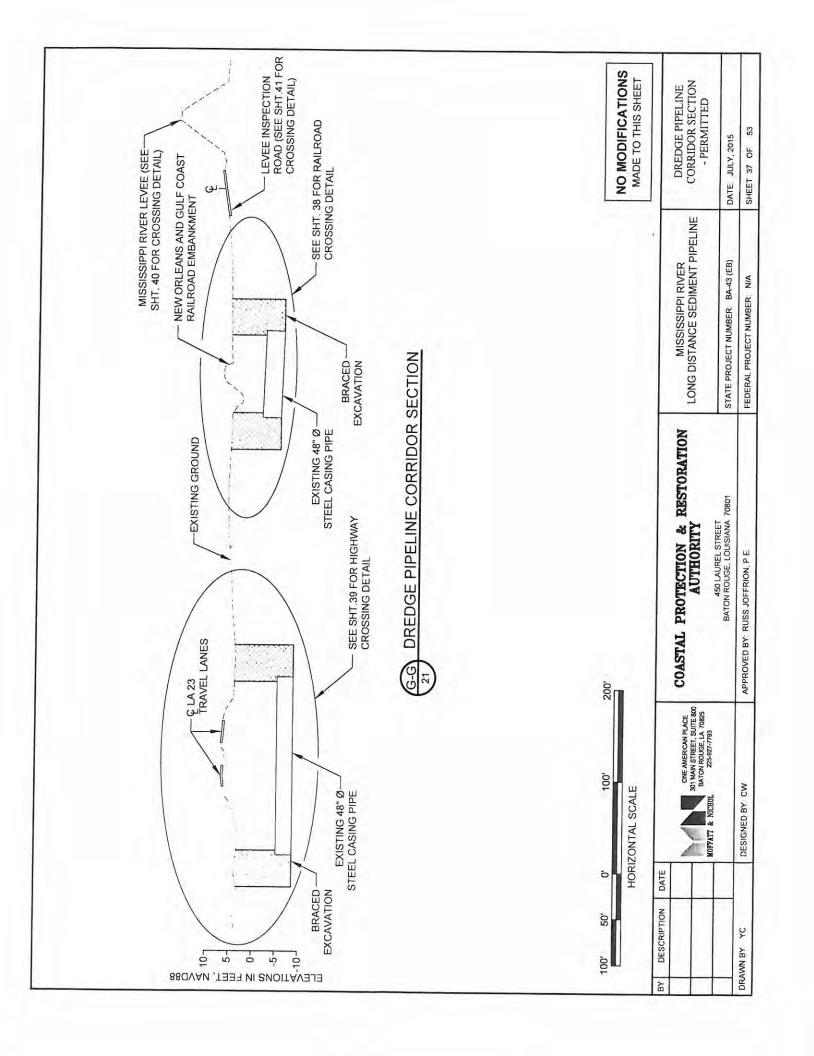


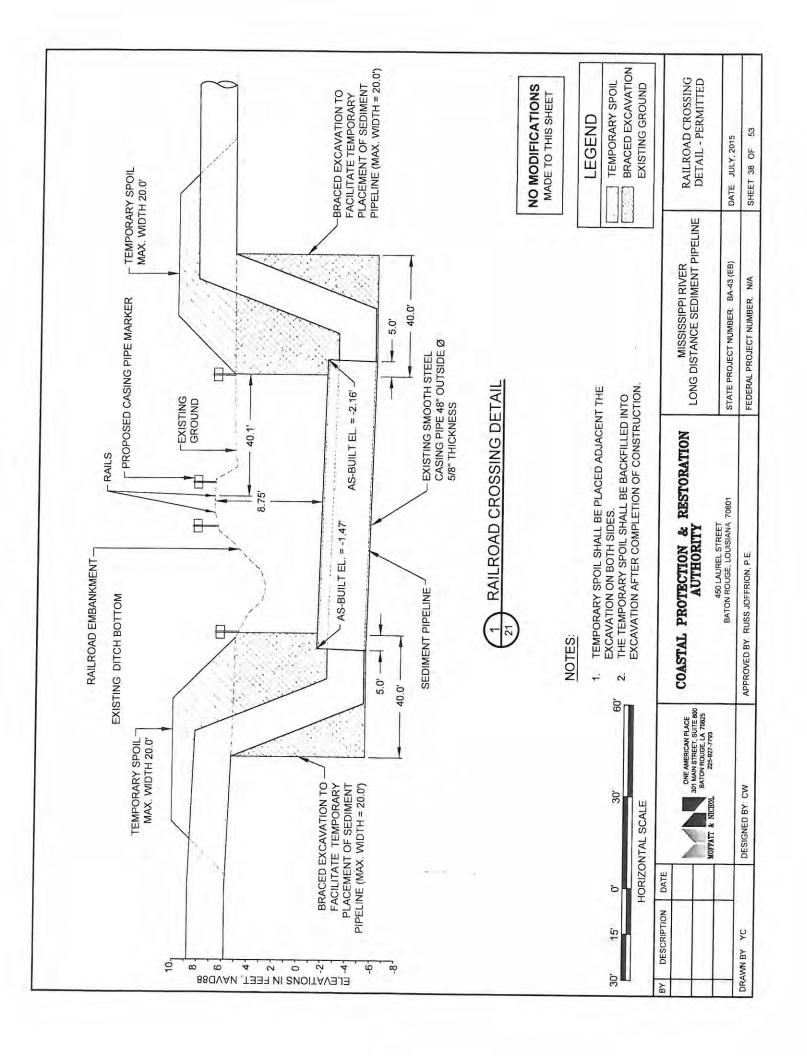


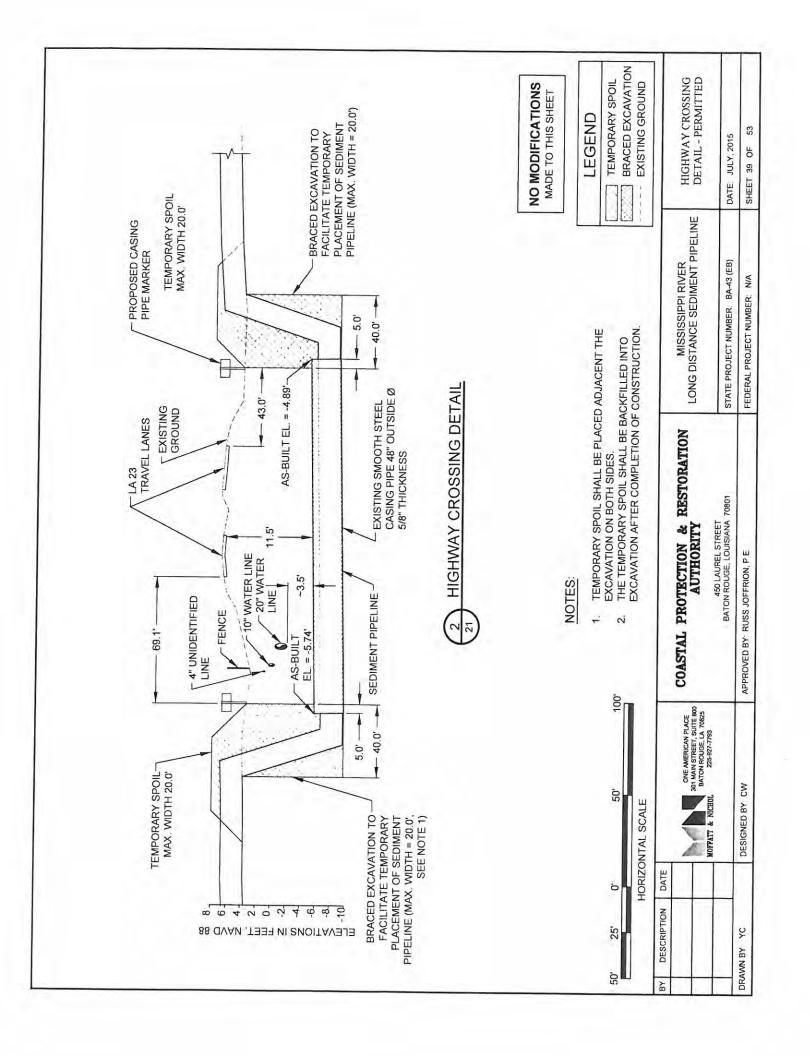


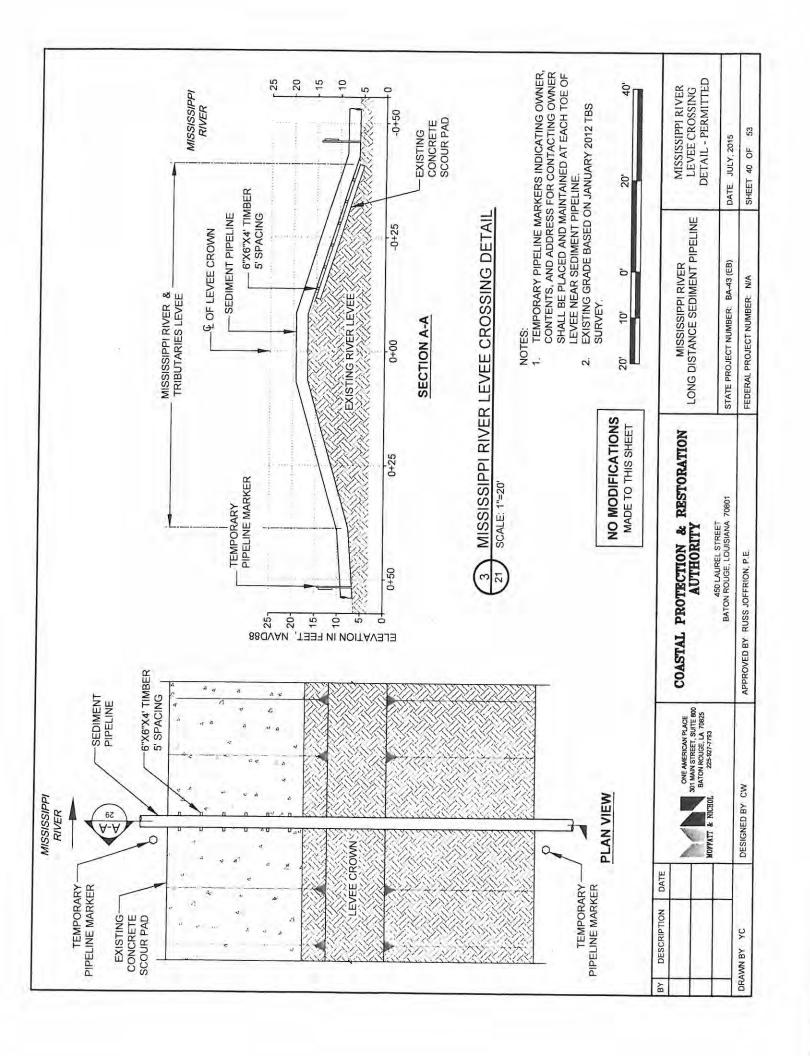


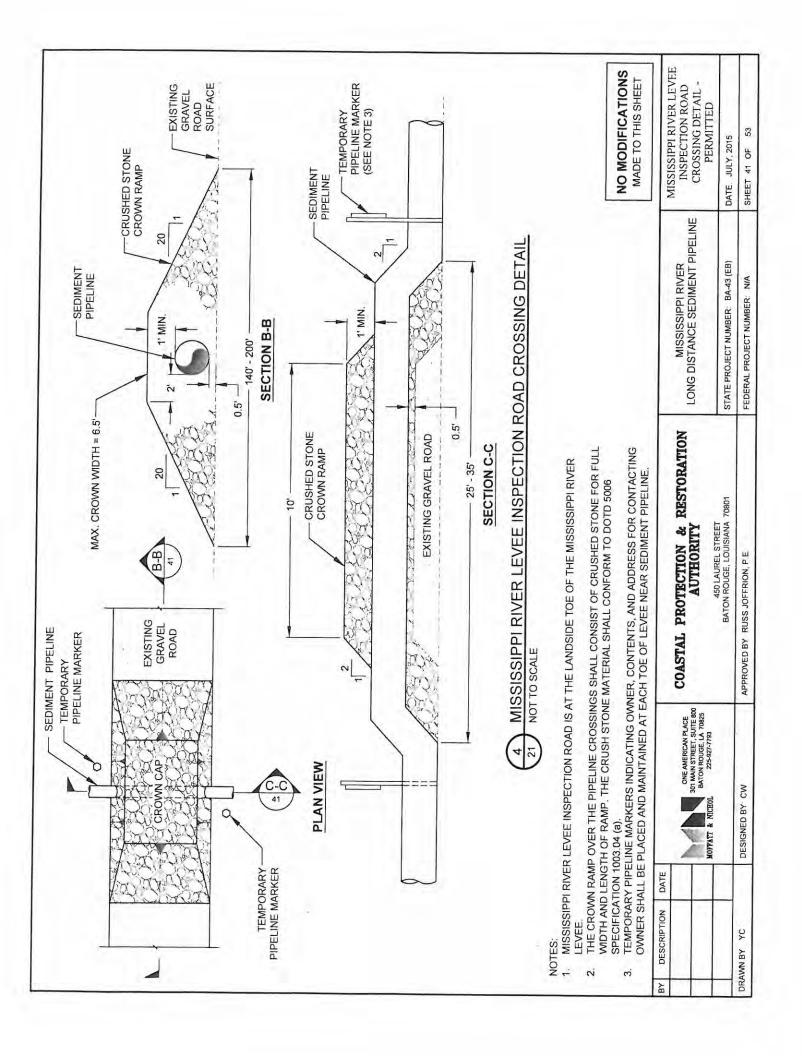


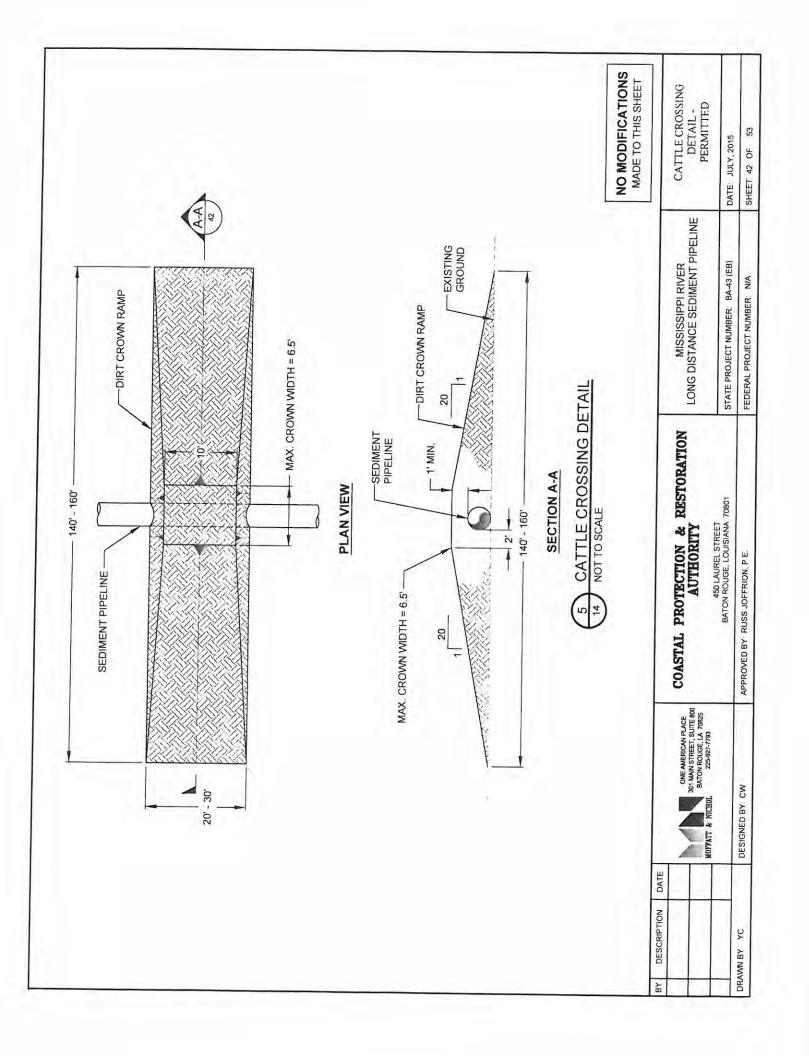


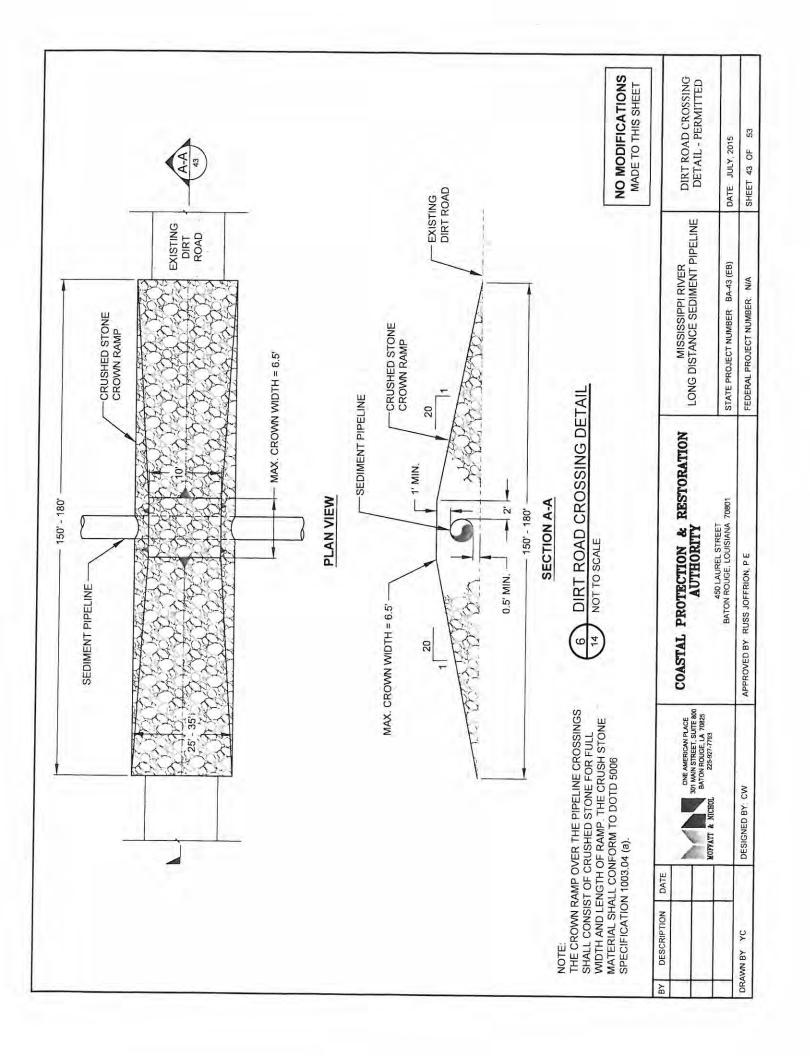


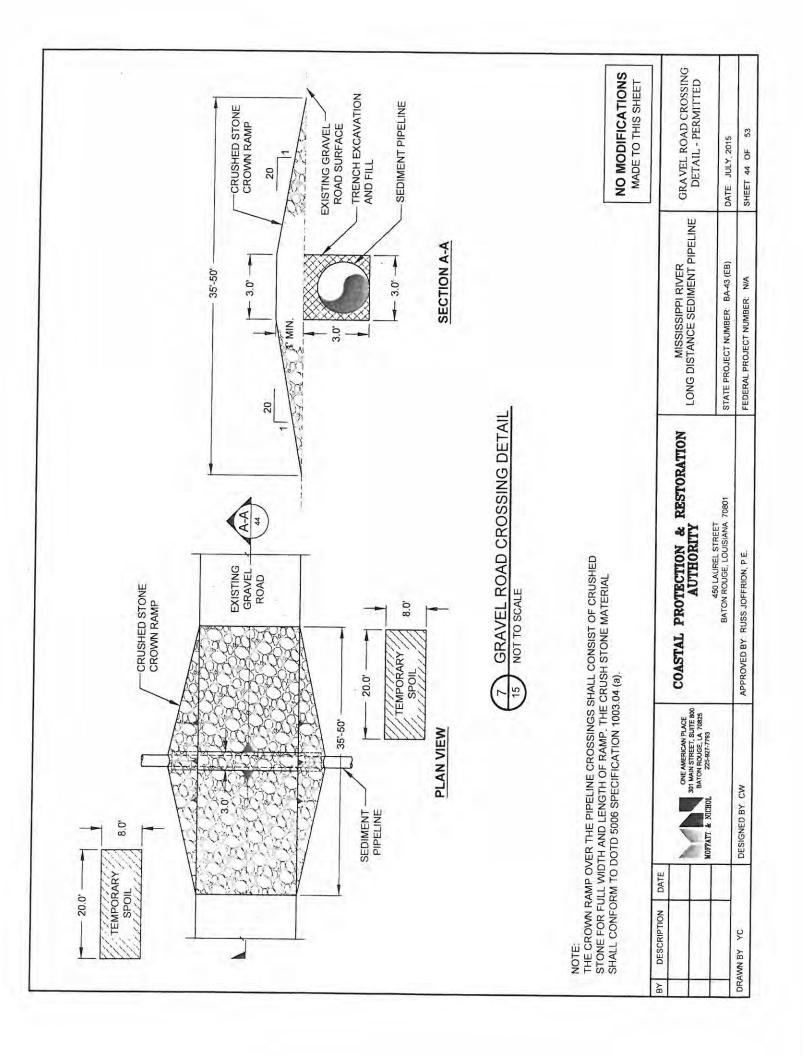


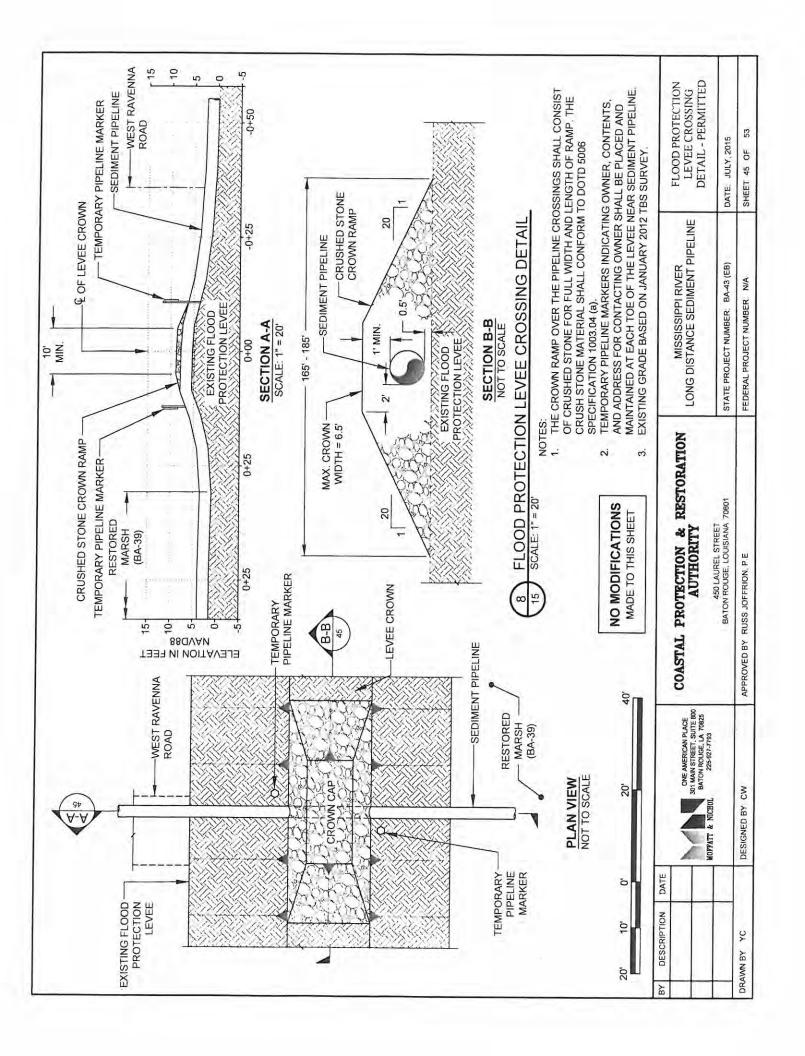


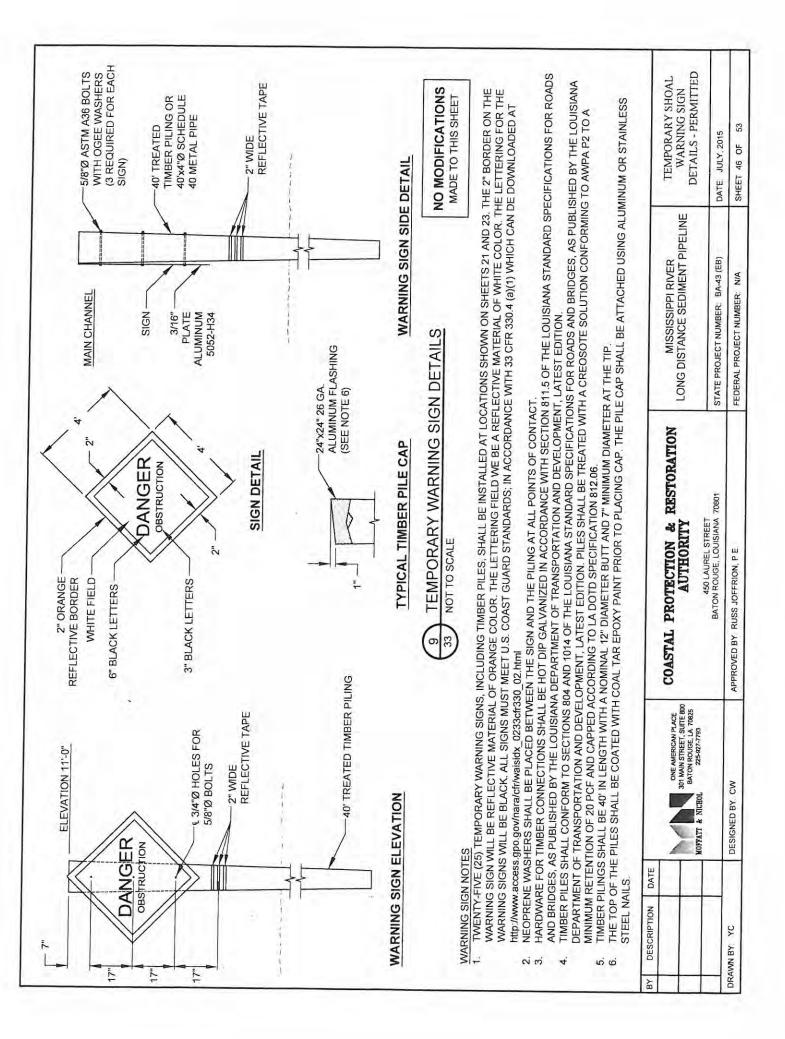


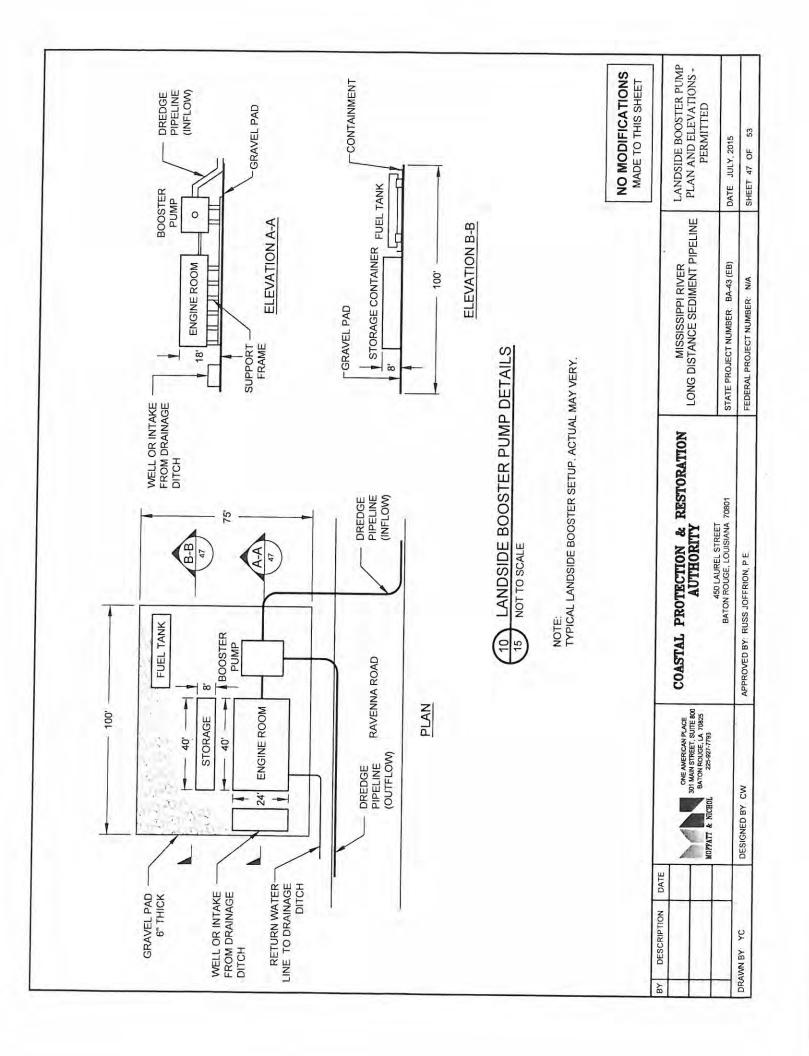


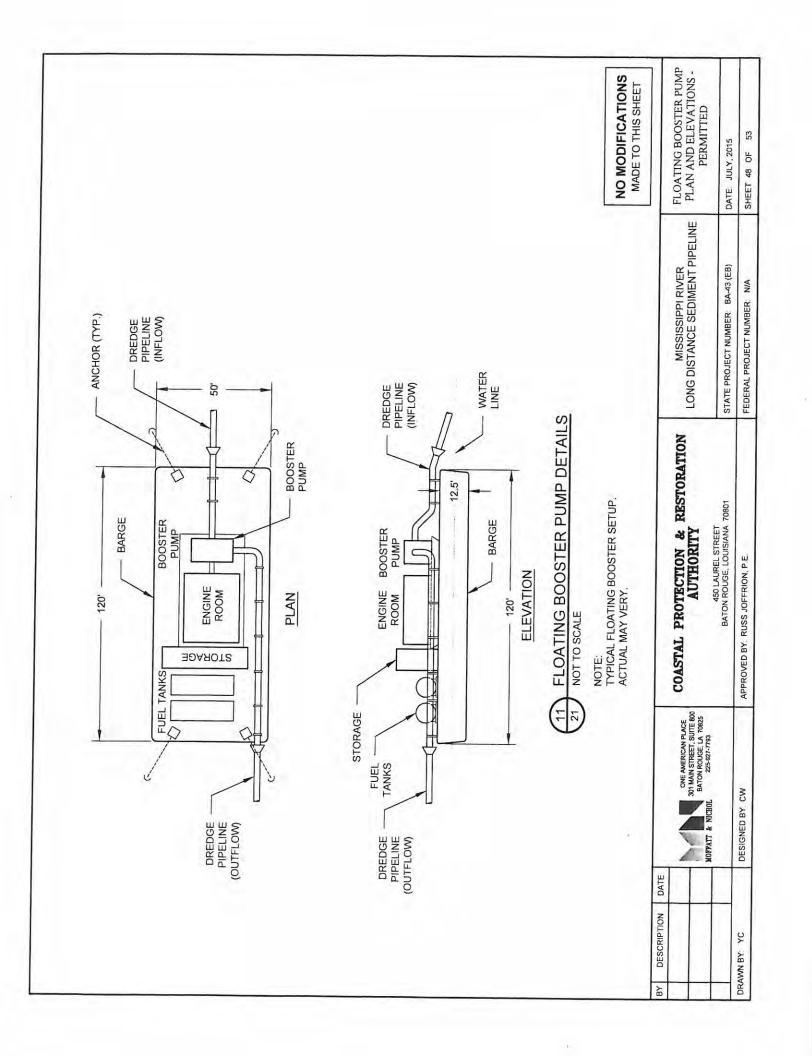


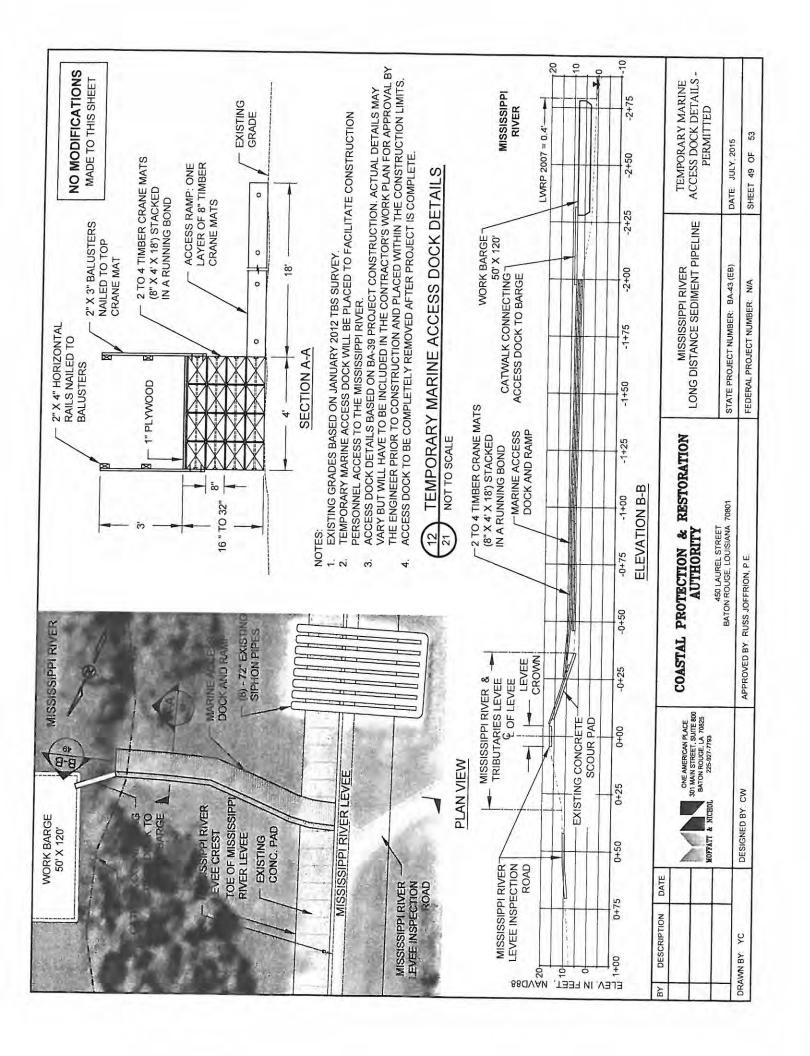


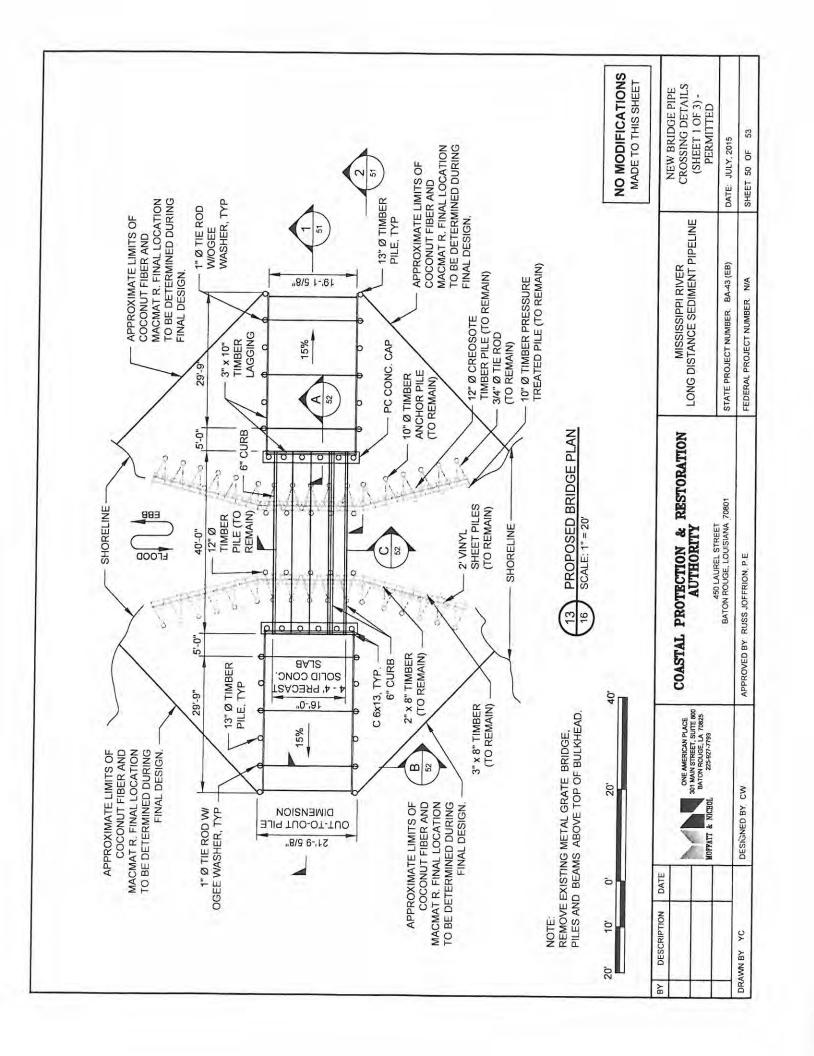


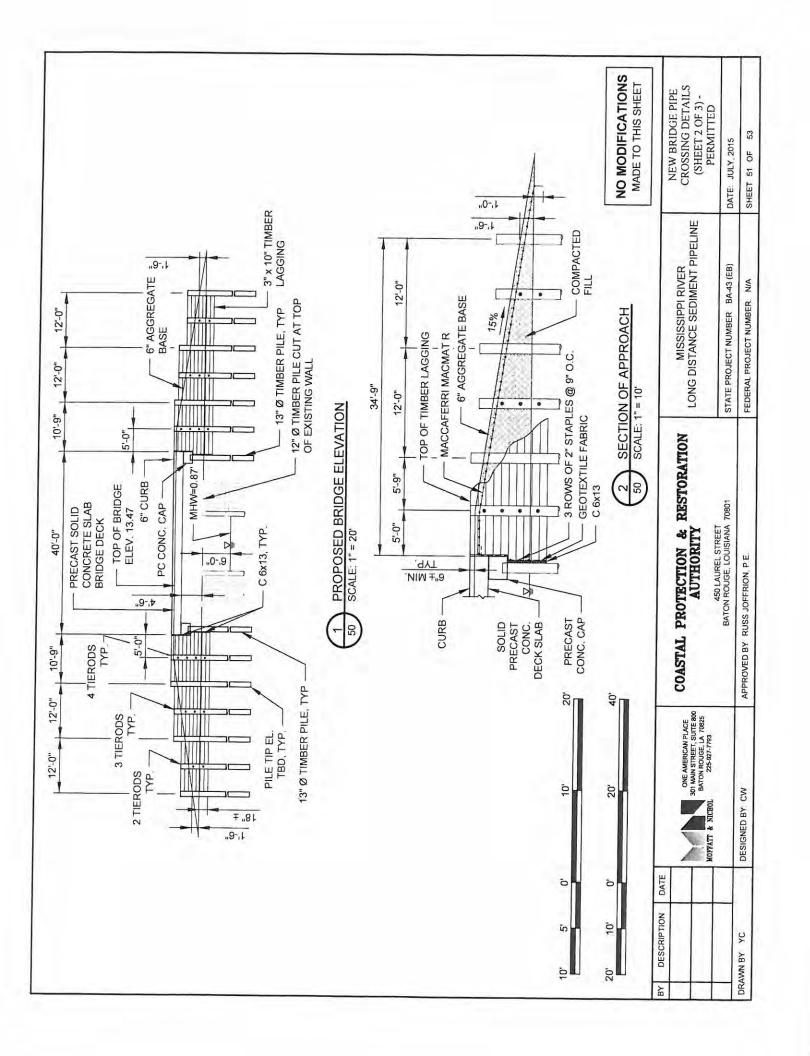


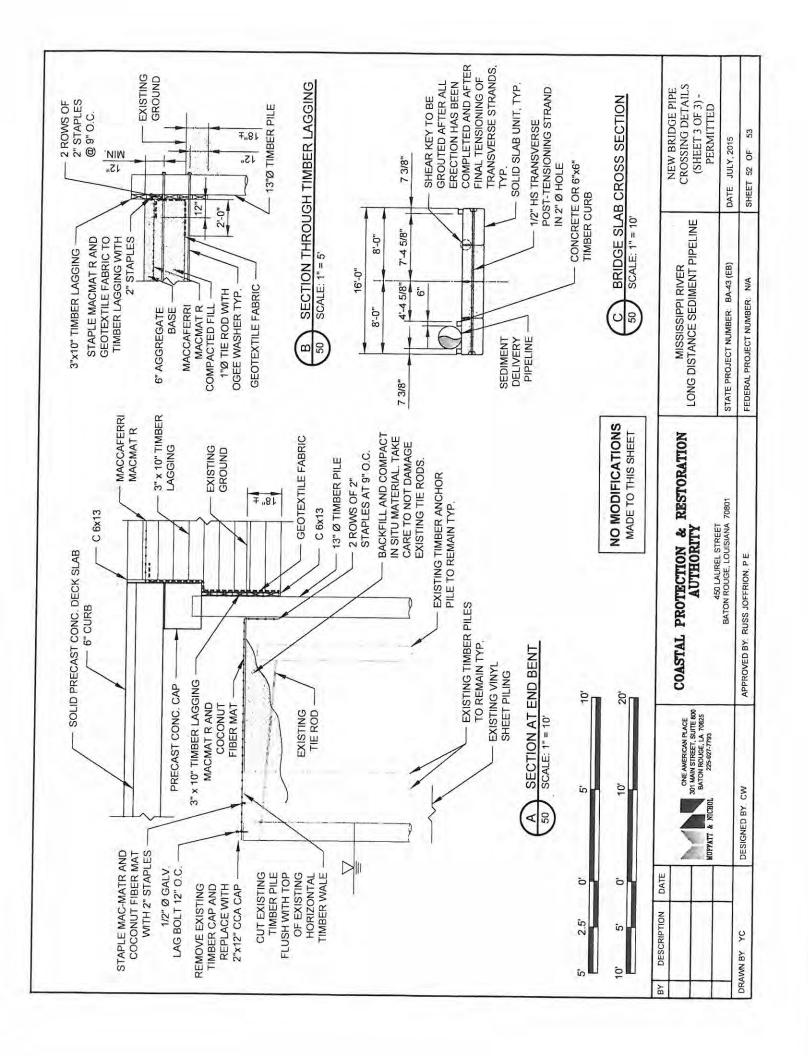


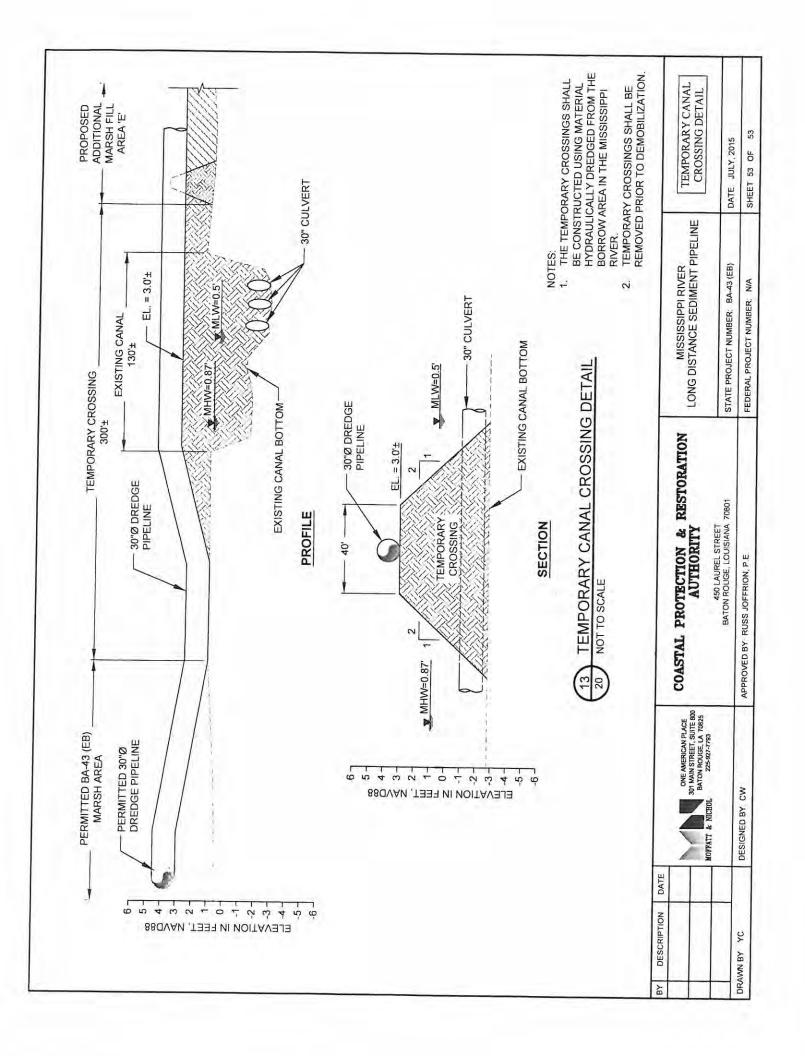












APPENDIX E

ACCESS CORRIDOR AND EARTHEN TERRACE WORK LIMITS SURVEYS

BAYOU DUPONT SEDIMENT DELIVERY MARSH CREATION NO. 3 STATE PROJECT NO. (BA-164)

DATA COLLECTION REPORT

PREPARED FOR:

COASTAL PROTECTION AND RESTORATION AUTHORITY OF LOUISIANA





JUNE 4, 2014





BAYOU DUPONT SEDIMENT DELIVERY MARSH CREATION NO. 3 STATE PROJECT NO. (BA-164)

DATA COLLECTION REPORT

Prepared for: C.P.R.A.

Coastal Protection and Restoration Authority of Louisiana

450 Laurel Street

Baton Rouge, LA 70801

Submitted By: T. Baker Smith, LLC

17534 Old Jefferson Highway, Suite D-1

Prairieville, LA 70769

BAYOU DUPONT SEDIMENT DELIVERY MARSH CREATION NO. 3 STATE PROJECT NO. BA-164

DATA COLLECTION REPORT

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Digital Appendix

- Data Collection Report file (PDF format)
- Project digital drawing files (AutoCAD, and PDF format)
- Topographic and Bathymetric digital survey point data (ASCI II format)
- Topographic and Bathymetric digital survey point data (csv format)
- Survey Field Notes (PDF Format)

DATA COLLECTION REPORT

BAYOU DUPONT SEDIMENT DELIVERY – MARSH CREATION NO. 3 STATE PROJECT NO. BA-164

1.0 Introduction

The purpose of this document is to identify and outline data collection tasks necessary to support the design of three marsh creation cells as a part of the Bayou Dupont Sediment Delivery – Marsh Creation #3 (BA-164). T. Baker Smith, LLC (TBS), under our 2012 Survey IDIQ Contract (Contract #2503-12-20), has been tasked with collecting topographic, bathymetric, and geophysical data across the three proposed cells as well as the access routes to the cells as described in the Scope of Services dated November 2013. The services provided under this task order are intended to assist the Coastal Restoration and Protection Authority (CPRA) with the necessary data needed in an organized and workable format for design.

2.0 PROJECT OVERVIEW

The BA-164 project is funded through the Coastal Wetlands Planning, Protection and Restoration Act under Priority Project List 22. This project is sponsored by The CPRA in conjunction with the U.S. Environmental Protection Agency (EPA). The Bayou Dupont area, located in both Jefferson and Plaquemine Parishes, has been experiencing substantial wetland loss due to natural causes such as subsidence and hurricanes, as well as from man-made features such as oil and gas canals and the Mississippi River Levee System.

This project proposes to hydraulically dredge sediments from a borrow area, located within the Mississippi River, and pump the sediment to three marsh creation areas totaling approximately 415 acres. The marsh creation areas will be constructed by pumping dredged material into the proposed earthen containment dikes to an elevation that represents natural marsh elevations within the Bayou Dupont area.

3.0 DATA COLLECTION SUMMARY

During the period of February 2014 through May 2014, TBS collected field data throughout the project area. This data collection task consisted of numerous topographic, bathymetric, and geophysical surveys throughout the proposed project area. Field data was

collected by both a two-man and a three-man survey crew using an Airboat for marine transportation.

3.1 Marsh Creation Area Surveys

Topographic and Bathymetric surveys were performed along 27 transects located within the three proposed marsh creation areas. Marsh Cell #1 included 9 transects consisting of T-7 and the even transects between T-8 thru T-22. In addition to the requested transects, TBS ran three additional sections across an existing pipeline canal referred to as transects T-12a, T-12b, and T-12c. Marsh Cell #2 totaled 9 transects starting at L-1 and then running T-45 thru T-52, while Marsh Cell #3 included L-2 and L-3 then T-59 thru T-65.

Transects were spaced at 500-foot intervals, except in Marsh Cell #1 where they were spaced at 1000-foot intervals. Marsh Cell #1 was reduced due to the recent data collected by TBS during the Mississippi River Long Distance Sediment Pipeline Project (LDSP). Shots were taken along these transects at 25-foot intervals or at major changes in grade.

The data collected in Marsh Cell #1 was analyzed and compared to the data collected in 2011 as a part of the LDSP project. Although there are a few minor discrepancies between the data sets at specific locations, it is our professional opinion that the LDSP data can be used in support of the BA-164 as a secondary source to the more recent data collected on this project as needed.

Other topographic data collected as a part of this phase included marsh banklines, spoil banks, timber piles, and steel gates located within the project area. This data was collected in areas that were pertinent to the design of the three marsh cells.

3.2 ACCESS ROUTE SURVEYS

Three access routes were surveyed as a part of the BA-164 project and referred to in this deliverable as Access Routes 1, 2 and 3, as well as an area along the Plaquemine Parish levee between Marsh Cells #2 and #3. A total of 34 transects along these access routes were surveyed at 500-foot intervals, with shots along these transects at 10-foot spacing or at elevation changes greater than 0.5 feet. Additionally, a centerline profile was taken along the three access channels. Where water depths allowed, TBS utilized its Sonar Mite equipment to collect continuous data

along the channel centerline. Shallower water depths collected data using traditional sounding methods with shots taken at 50 foot spacing.

Access Route 1 consisted of transects T-1 thru T-6 and a centerline profile (CL1) of approximately 10,100 linear feet. Stationing for Access Route 1 starts at station 10+00 as shown on sheet 1 of the drawing set. Transects associated as a part of Marsh Cell #1 also extended across this channel. Access Route 2 included transects T-23 thru T-35 as well as 6500 linear feet of centerline profile (CL2), which begins at station 200+00. Transects T-36 thru T-44 are located on Access Route 3 along with approximately 4000 linear feet of centerline profile (CL3). The area between Marsh Cell #2 and #3 located along the Plaquemine Parish levee was included in transects T-53 thru T-58.

3.3 MARSH ELEVATION SURVEYS

Average marsh elevations were shot on March 31, 2014 and were attended by Bryan Gossman out of the CPRA New Orleans Field Office. Mr. Gossman adjusted the location of the average marsh elevation coordinates (AV-1 thru AV-5) provided in CPRA's original scope of work. Four of the updated locations, as detailed on sheets 33-35 of the drawing set, were relocated to healthy, natural marsh along the east bank of Bayou Dupont and are better described as AV-1 thru AV-4. AV-5 was slightly relocated closer to Marsh Cell #3 as directed by Bryan to a healthy patch of marsh.

The following table shows the breakdown of the average marsh elevation for each of these five areas.

			Average
Point	Northing	Easting	Elevation
AV-1	414,386	3,690,875	0.19'
AV-2	413,415	3,694,116	0.54'
AV-3	412,104	3,694,359	0.46'
AV-4	411,308	3,697,091	0.39'
AV-5	414,206	3,709,292	0.54'

3.4 <u>HAZARD/MAGNETOMETER SURVEY</u>

Magnetometer surveys were performed across every other transect within the marsh creation areas at 1000 foot intervals, except for within Marsh Cell #1 (westernmost cell). This

area had been previously surveyed as a part of the LDSP (BA-43EB) by TBS in 2011 and can be used in conjunction with this survey. All three marsh cells had an additional mag transect performed across the middle of the cell labeled as M-1, M-11, and M-17 as well as an interior loop located at a 50 foot offset from the marsh cell boundaries (M-24 thru M-26). Access routes were only surveyed down the centerline of the channels (M-21 thru M-23).

Subsequent to the Magnetometer survey, survey crews investigated all anomalies using a magnetic gradiometer and probing techniques to determine if metallic objects such as pipelines were present. One active pipeline was found to run parallel to the Plaquemine Levee at approximately 75-foot offset from the levee centerline. This pipeline will border the northeast boundary of Marsh Cell #2 and will run a section of Marsh Cell #3 as shown in sheets 23-32 of the drawing set. Some of the anomalies detected were found to be false readings generated by the rough conditions caused from towing equipment from an Airboat.

4.0 METHODOLOGY

4.1 Survey Control and Datum Information

Two CPRA Secondary Benchmarks were used as a horizontal and vertical survey control for all data collection tasks on this project; "BA03-SM02" & "BA41-SM02". On a day-to-day basis, "BA03-SM02" was used due to the proximity to our boat launch and project area. Prior to any survey work being performed, the position of our primary benchmark was verified by observing a nearby TBM set by the crew near the boat launch while "BA41-SM02" was checked in as needed throughout the project. The primary benchmark identified above was found to be within an acceptable tolerance based on our check with "BA41-SM02".

As a part of this project: "BA03-SM01 RESET" was supposed to be used as a check, but was unable to check in within 0.41 feet vertically. This is the same vertical deviation that was recorded by TBS during the LDSP project. Therefore this benchmark was disregarded for this project.

The horizontal datum for all survey field data collected as a part of this project is the North American Datum of 1983 (NAD 83). The projection for all grid coordinates is Louisiana State Plane, South Zone (1702), in U.S. Survey feet. The vertical datum for all elevations is NAVD 88,

in U.S. Survey feet. Orthometric heights were established using GEOID 03 (Louisiana revision). Geographic coordinates are provided as NAD 83 latitudes and longitudes.

4.2 TOPOGRAPHIC SURVEYS

Topographic surveys were performed using both two-man and three-man survey crews, accessing the survey area by airboat. In areas with a clear, unobstructed view of the sky, a Trimble© model R7/R8 GPS RTK unit was used to collect the topographic field data. In areas where tree canopy or other obstructions made RTK GPS impractical, the survey crew used conventional survey methods to collect the topographic data. For the subaqueous portions of cross-sections, data was collected by taking hand soundings using a Standard 25' Stadia Rod with a 6" diameter bottom plate. RTK GPS was used for horizontal positioning of each sounding. All soundings were referenced to an RTK GPS observed tide reading for elevation reduction.

Topographic survey data was downloaded from the Trimble TSC-2 Data Collector into the Trimble Business Center software for processing. This software allows for QA/QC of GPS data, and was used to check for instrument setup errors, antenna height errors, and other blunders. Sounding data was processed by manually entering the soundings and observed tide readings into a formatted spreadsheet. The spreadsheet was configured to automatically reduce each sounding from depths to NAVD88 elevations.

4.3 BATHYMETRIC SURVEYS

Bathymetric data was collected using a Sonarmite digital echosounder interfaced with the HyPack® survey navigation software in conjunction with the Trimble RTK GPS unit previously mentioned. The digital depthsounder was calibrated several times a day for sound velocity corrections. This was accomplished utilizing the bar check method by lowering an acoustic target, with precisely measured marks, below the transducer to the desired survey depth. The depthsounder's sound velocity correction factor was then adjusted so that the depthsounder read the precise depth of the acoustic target. The measurements of the onboard GPS system was also checked by observing navigation checkpoints, or "Nav-checks", set throughout the project area.

4.4 MAGNETOMETER SURVEYS

Geophysical instruments used during this survey consisted of a Geometrics G-882 cesium-vapor marine magnetometer. Horizontal positioning of the airboat was accomplished using HyPack® navigation software with a Trimble Model R8 GNSS (RTK) global positioning receiver. The magnetometer sensor was deployed 57 feet behind the positioning antenna and 4 feet Starboard.

All Magnetometer data was digitally recorded by the HyPack® survey navigation software mentioned above. The magnetometer was set to a collection frequency of 10 Hz. The magnetic data was processed in HyPack® to obtain the exact position, signature type, and strength of each anomaly. The HyPack® processing software allows the user to view the magnetic data as gamma values along a continuous survey line. The user is able to easily pinpoint anomalies as deflections from the normal magnetic field and note the position based on the center of the signature. Each magnetic anomaly is interpreted based on its gamma height, signature type, duration, and actual field observations.

APPENDIX A

Survey Benchmark Datasheets



VICINITY MAP Not to Scale

Reproduced from Louisiana 2005 DOQQ

Station Name: "BA03C SM 02"

Location: From La Highway 23 at St. Rosalie, Louisiana, which is located just south of oil storage tanks at Alliance, Louisiana proceed west on West Ravenna Road for approximately 2 miles to the monument on the right.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 48 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA03C-SM-02

Installation Date: 2002 Date of Survey: February 2003

Monument Established By: JCLS

For: CPRA, OCPR

Adjusted NAD83 Geodetic Position (NSRS2007)

Lat. 29°39'28.68864" N Long. 090°00'33.42327" W

Adjusted NAD83 Datum LSZ (1702) Ft (NSRS2007)

N= 423,541.04 E= 3,701,364.95

Adjusted NAVD88 Height (2006.81)

Elevation = -1.43 feet (-0.437 mtrs)

Ellipsoid Height = -25.531 mtrs. Geoid03 Height = -25.094 mtrs. (2004.65)

FOR REFERENCE ONLY

LCZ Adjusted NAVD88 Height (Geoid99)

Elevation = -0.67 feet (-0.203 mtrs)





VICINITY MAP Not to Scale

Reproduced from Louisiana 2005 DOQQ

Station Name: "BA41-SM01"

Location: Located in Jefferson Parish, Louisiana, approximately 1.3 miles southeasterly from the boat launch on Bayou Barataria at the end of Jean Lafitte Blvd. south of Lafitte, Louisiana and is on the east bank of Bayou Barataria immediately north of the cut into the pen. The Monument is located 16.8 feet northeast of a Texaco Pipeline Sign and 26.5 feet northeast of a creosote post with PK Nail in the center. Permission is required for Right of entry from Webb-Milling. Prior to entry, please contact Skip Haller at (228) 832-7878 or (228) 324-6490.

Monument Description: NGS Style floating sleeve monument; 9/16" stainless steel rods driven 60 feet to refusal, set in a sand filled 6" PVC pipe with access cover set flush with the ground.

Stamping: BA41-SM-01

Installation Date: 2006 Date of Survey: November 2006

Monument Established By: JCLS

For: JCLS

Adjusted NAD83 Geodetic Position (NSRS2007)

Lat. 29°38'36.00226" N Long. 090°05'44.42219" W

Adjusted NAD83 Datum LSZ (1702) Ft (NSRS2007)

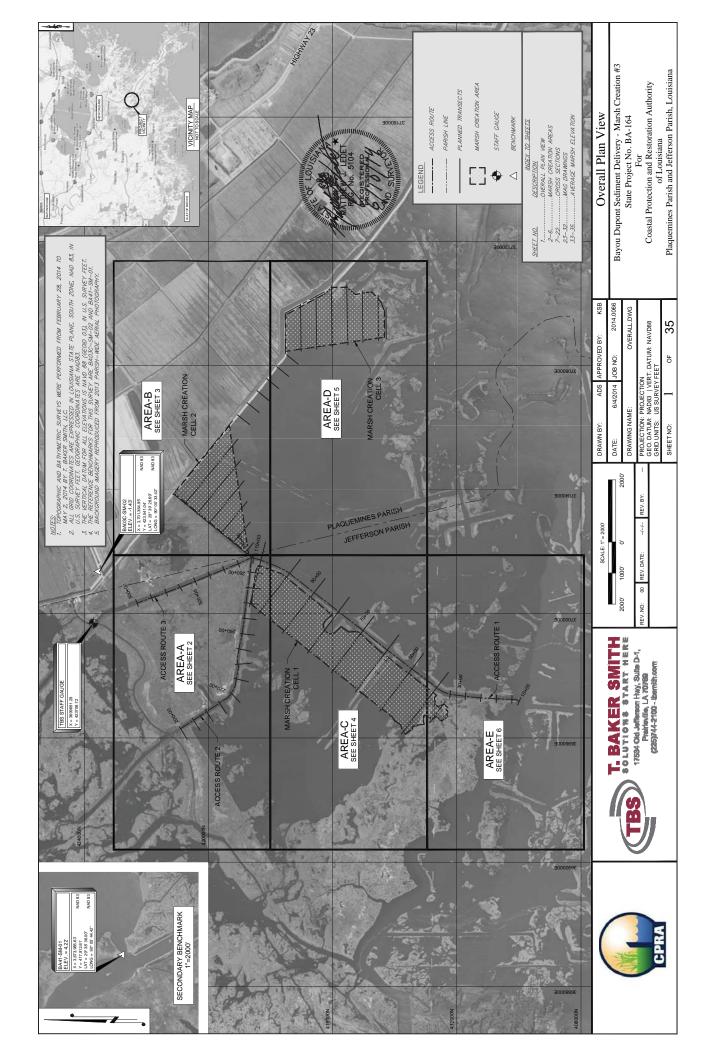
N= 417,912.61 E= 3,673,985.63

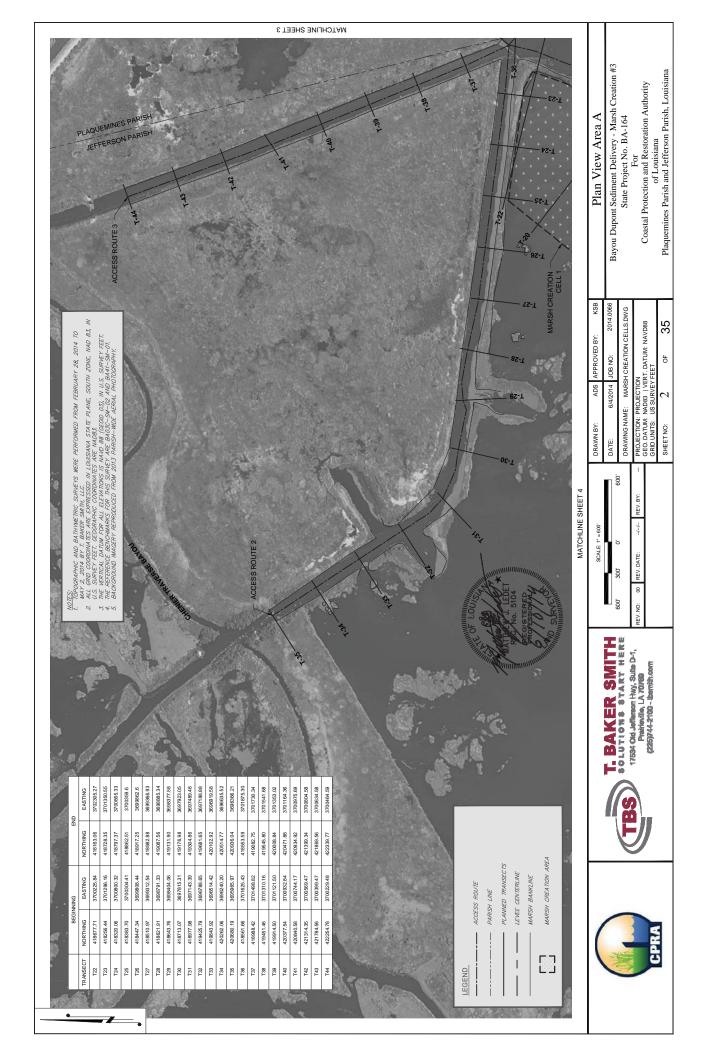
Adjusted NAVD88 Height (2006.81)

Elevation = 4.22 feet (1.286 mtrs)

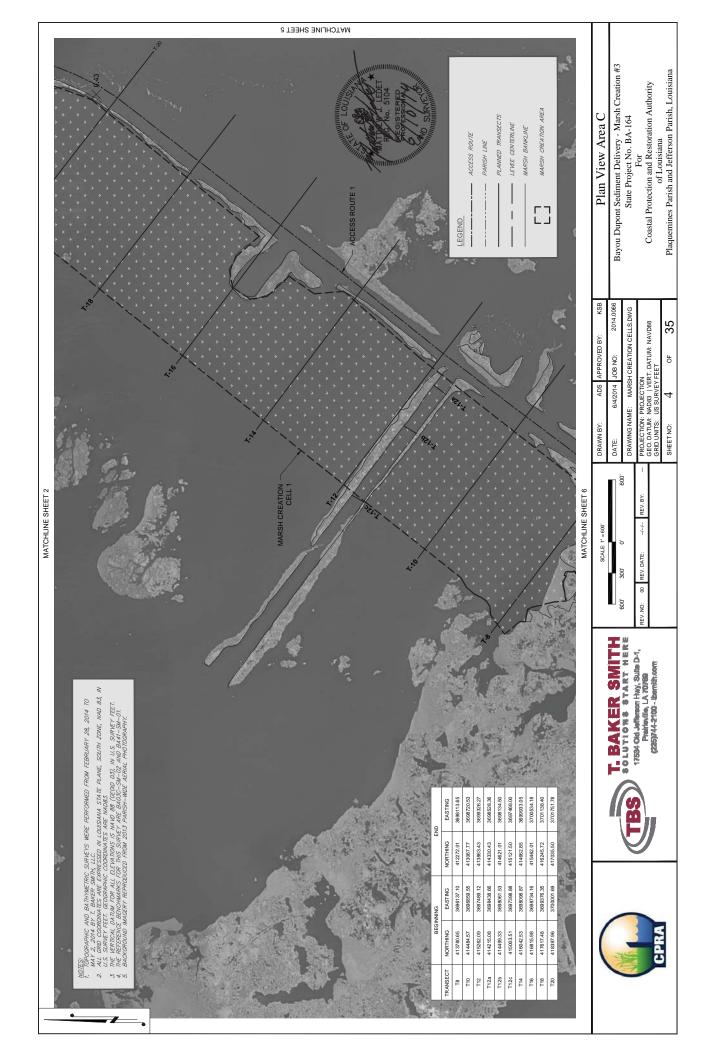
Ellipsoid Height = -23.820 mtrs. Geoid03 Height = -25.106 mtrs. (2004.65)

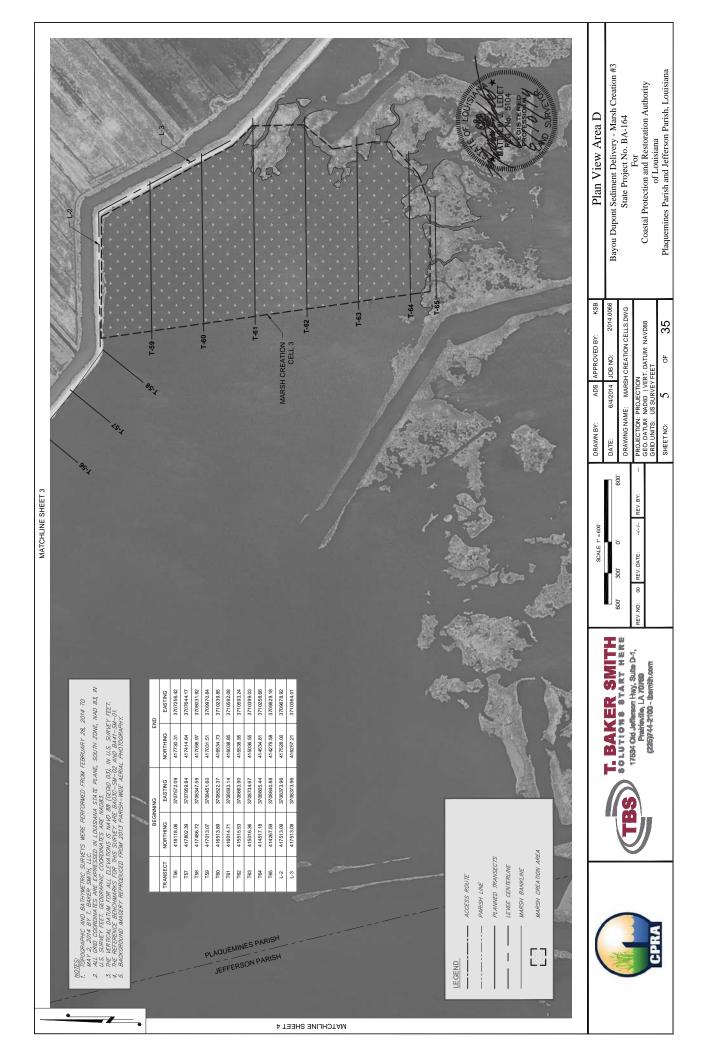


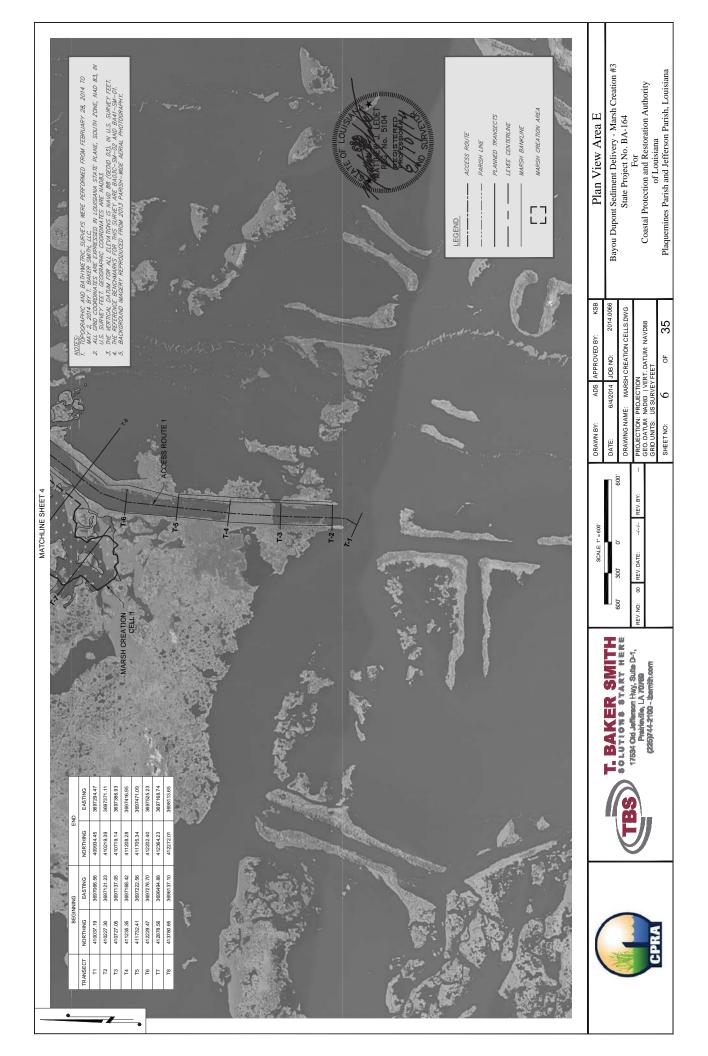


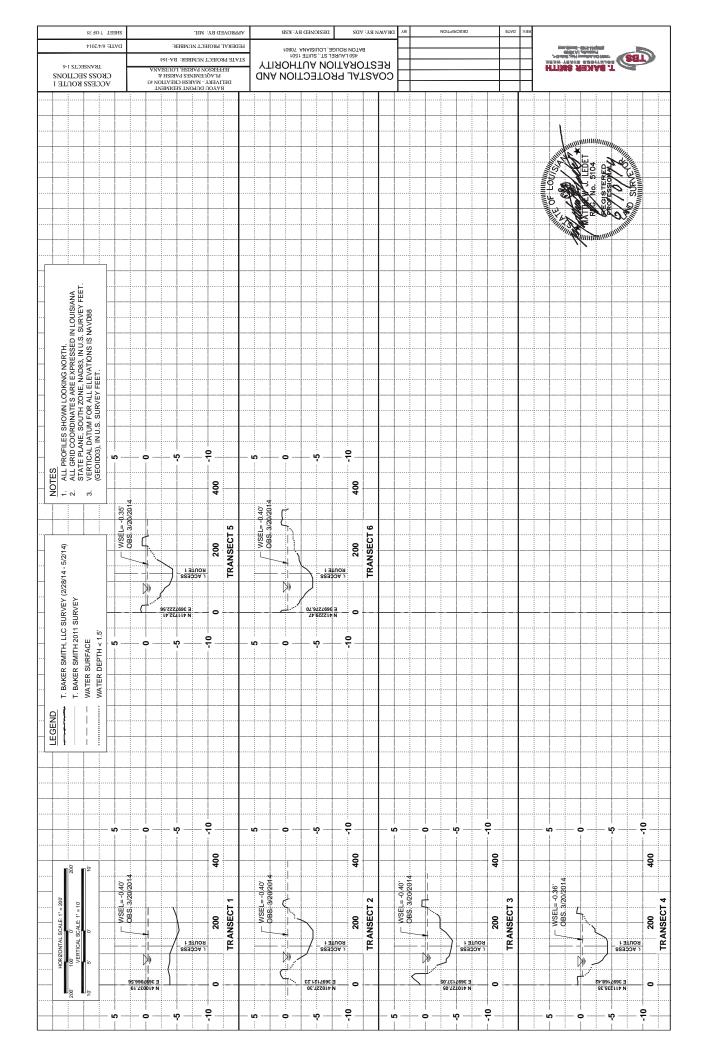


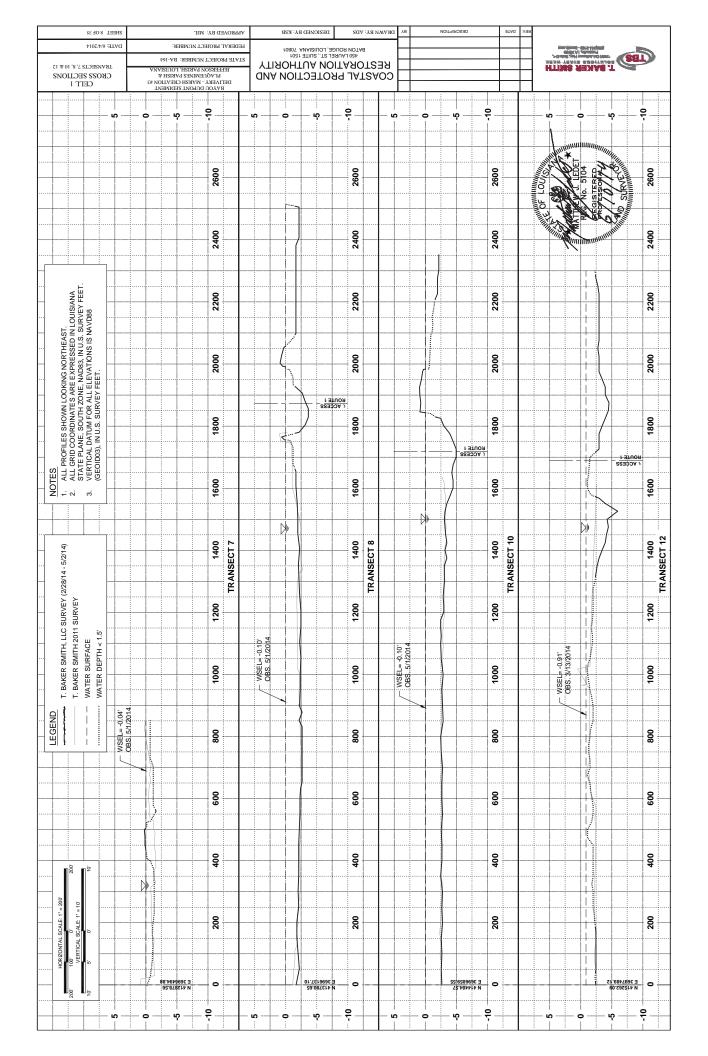


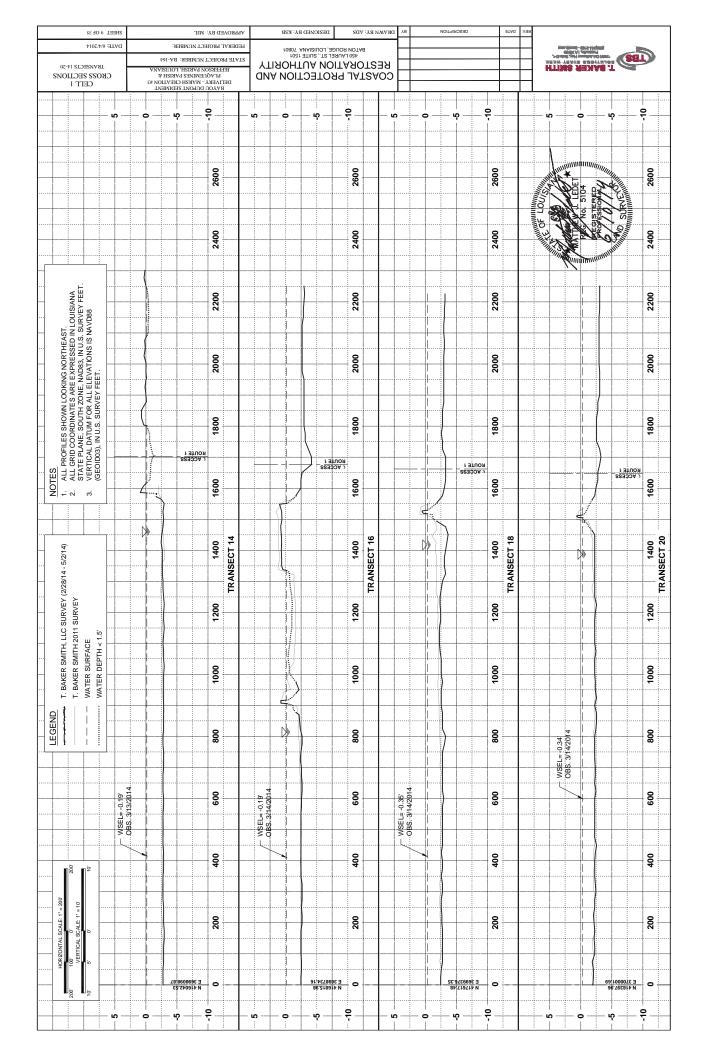


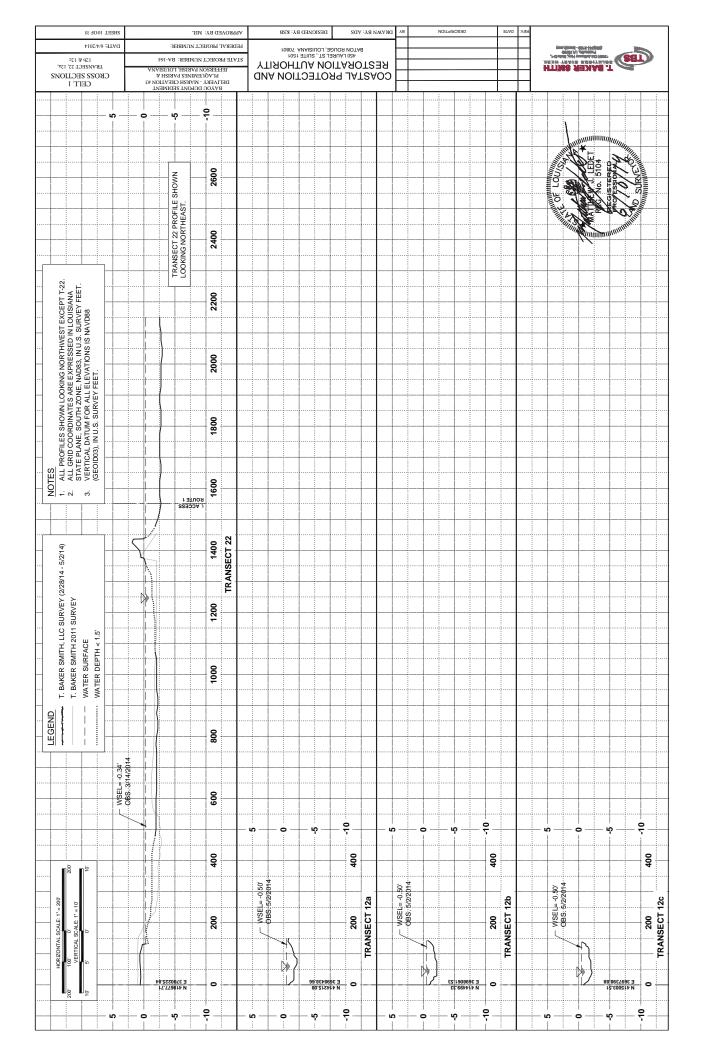


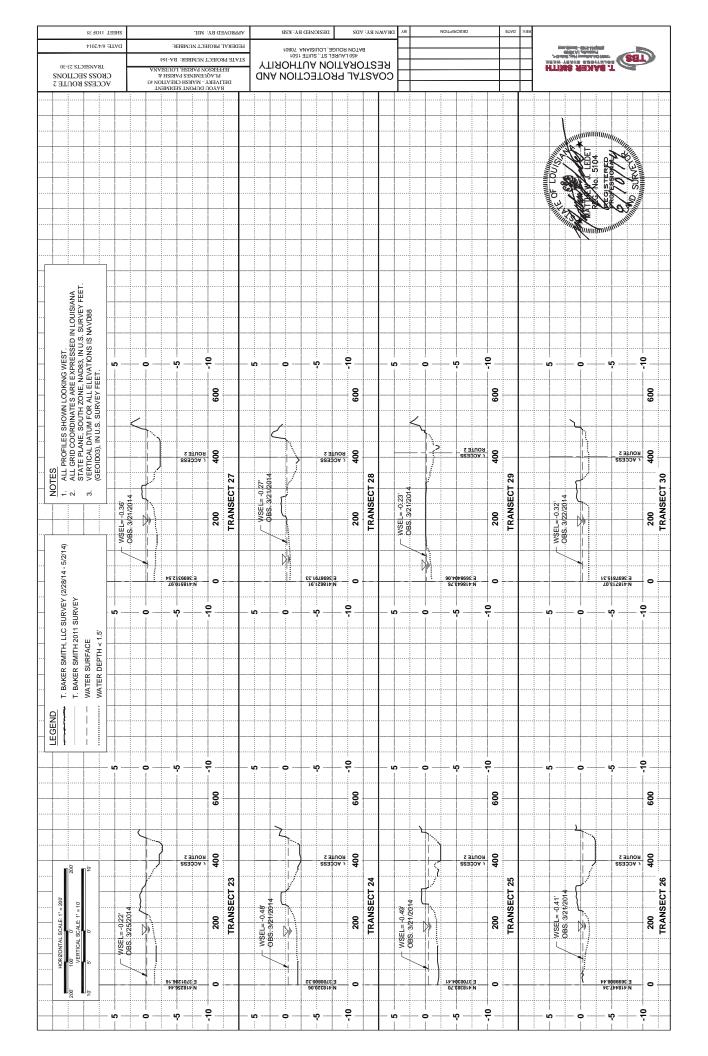


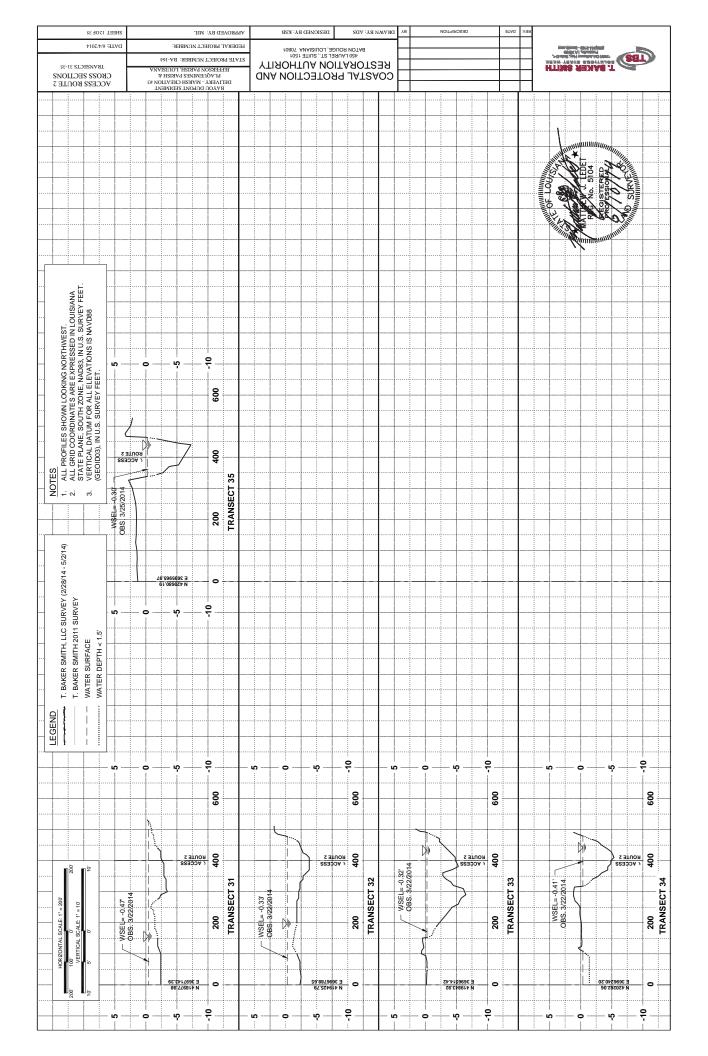


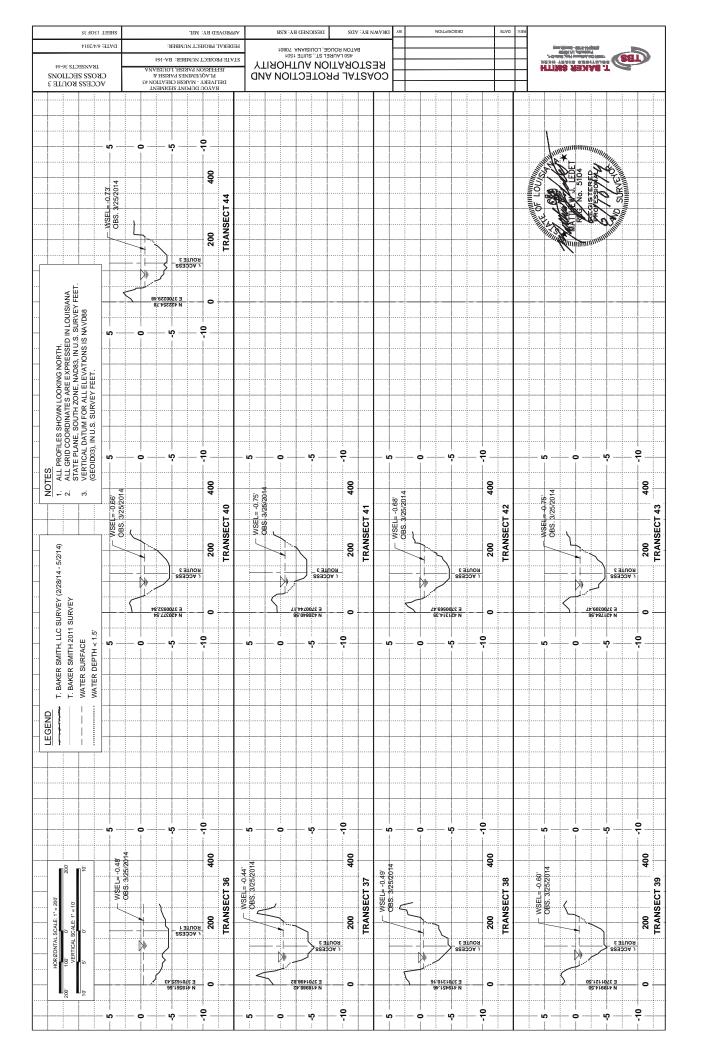


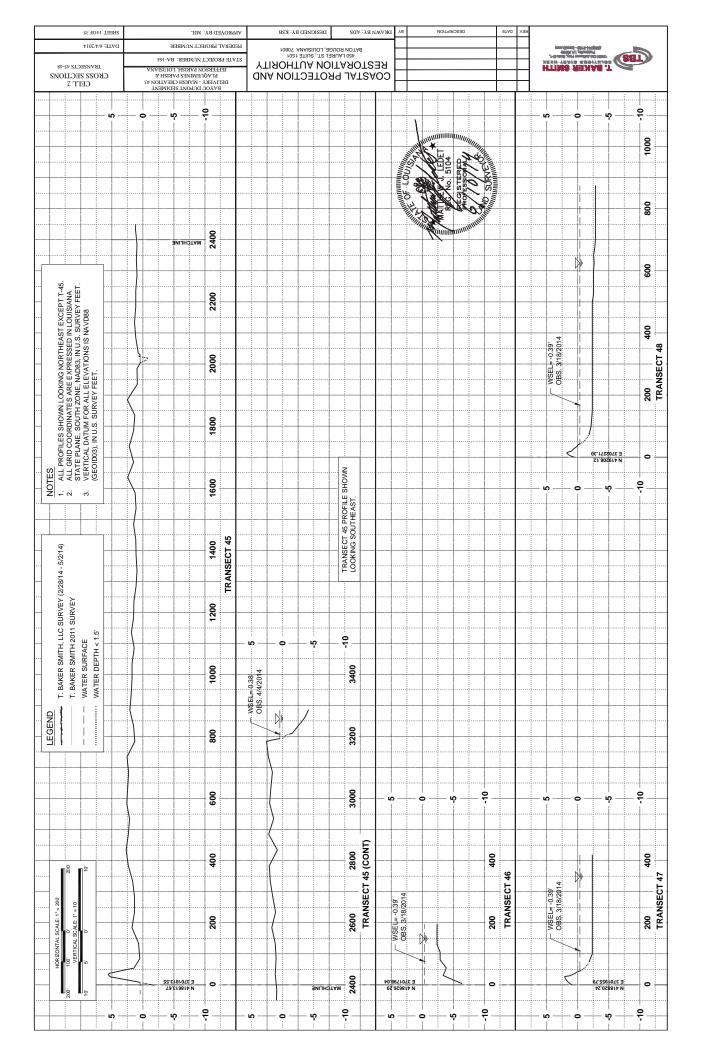


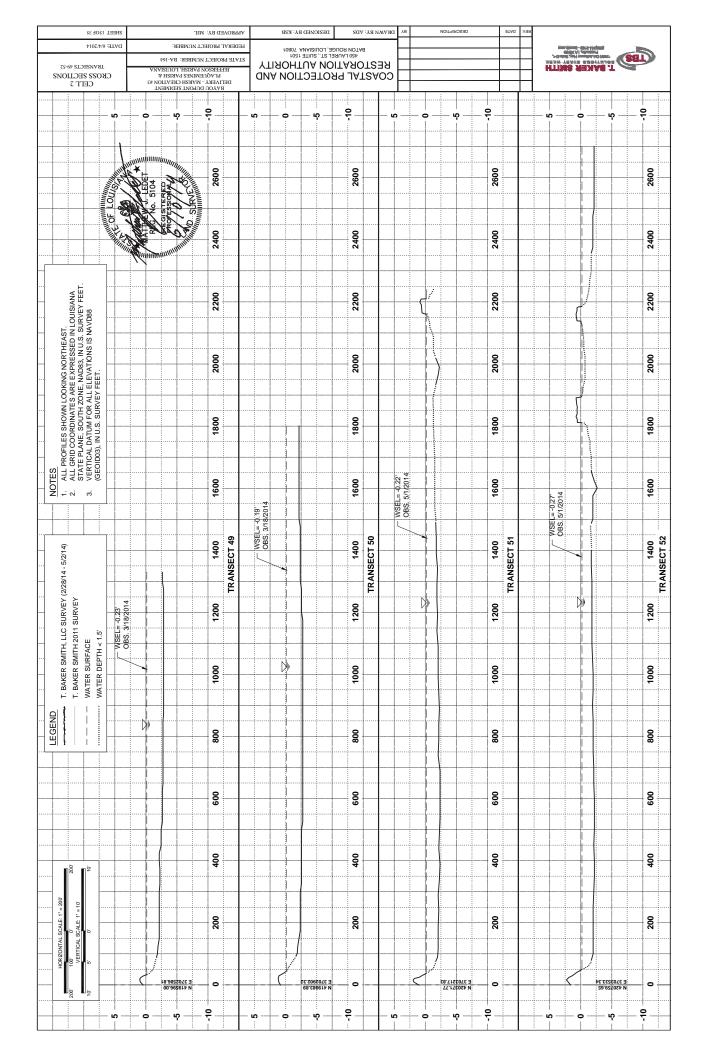


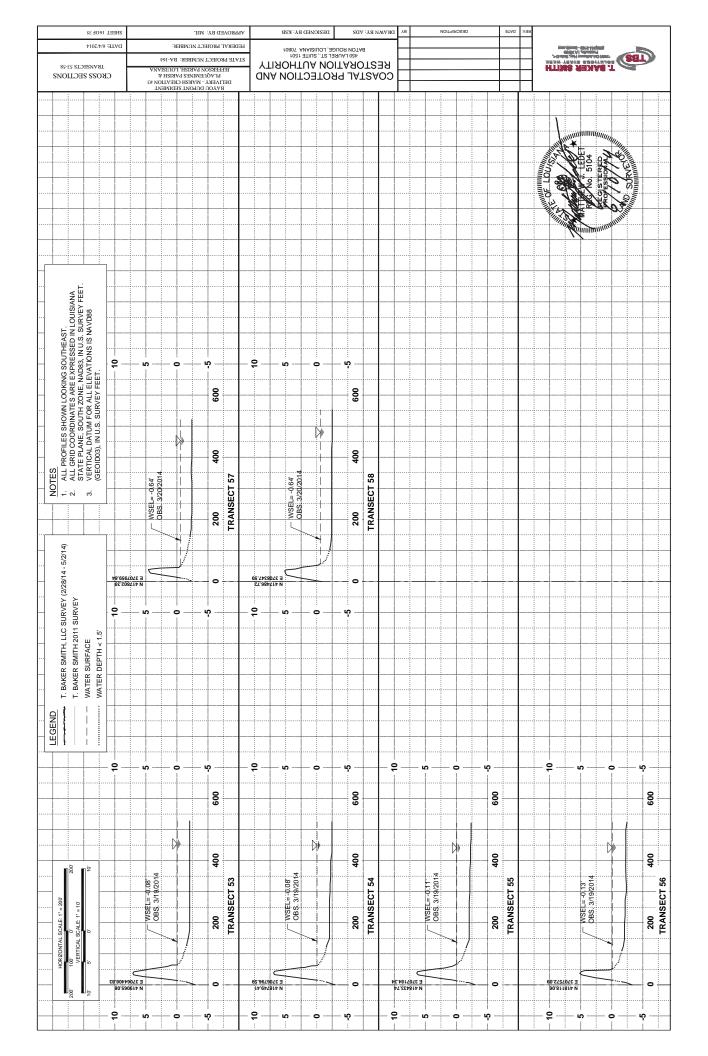


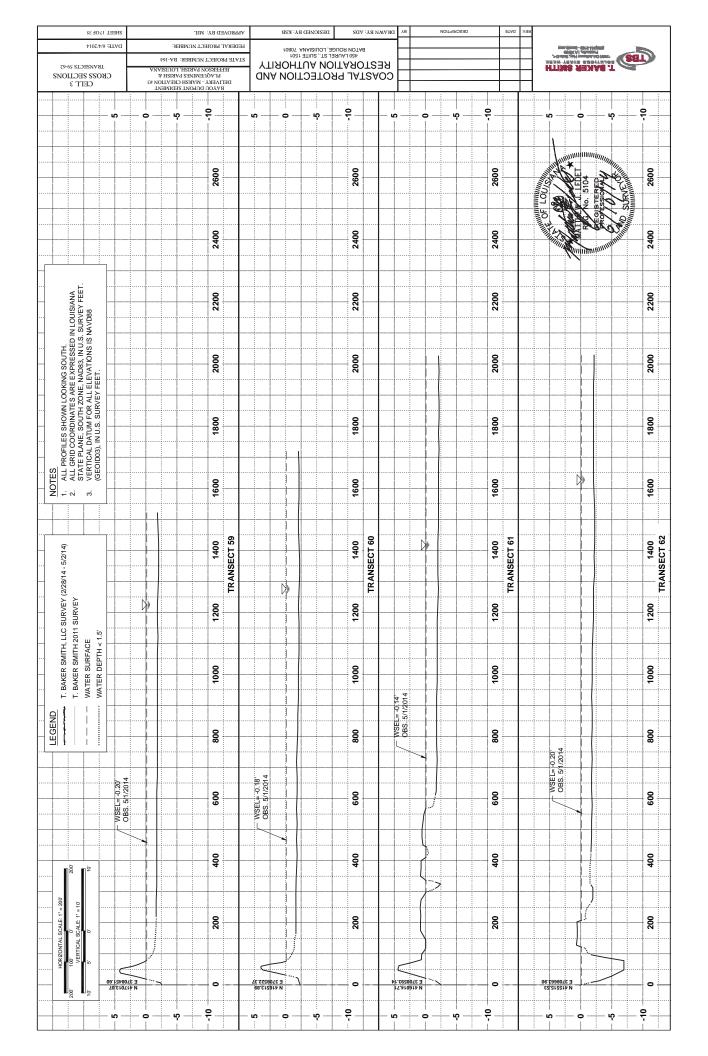


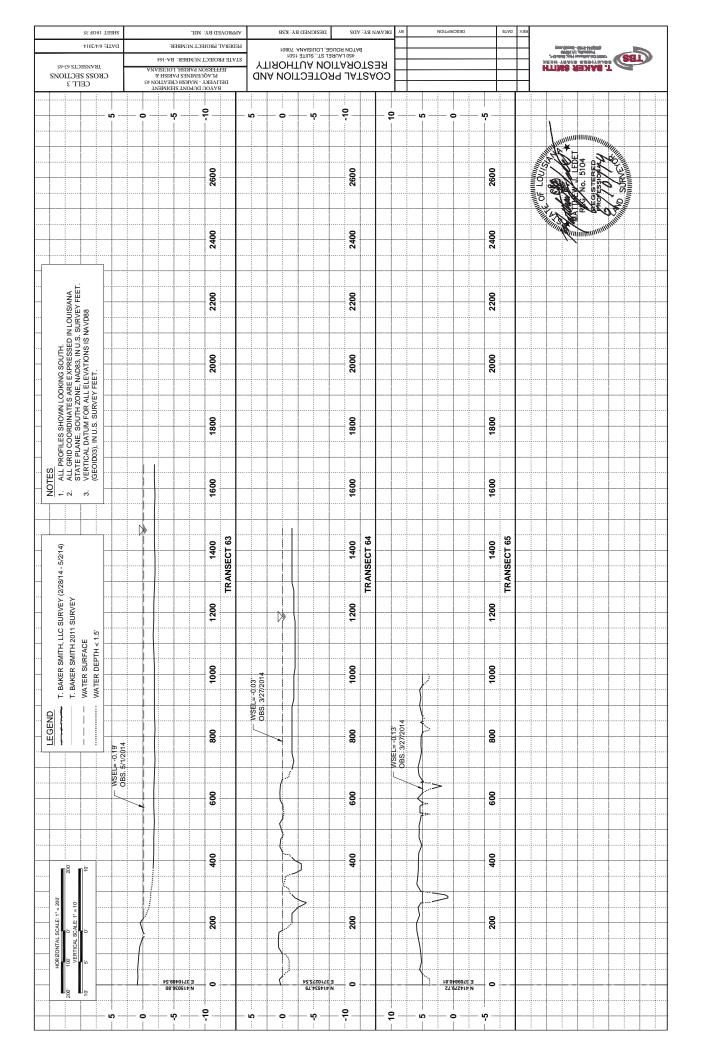


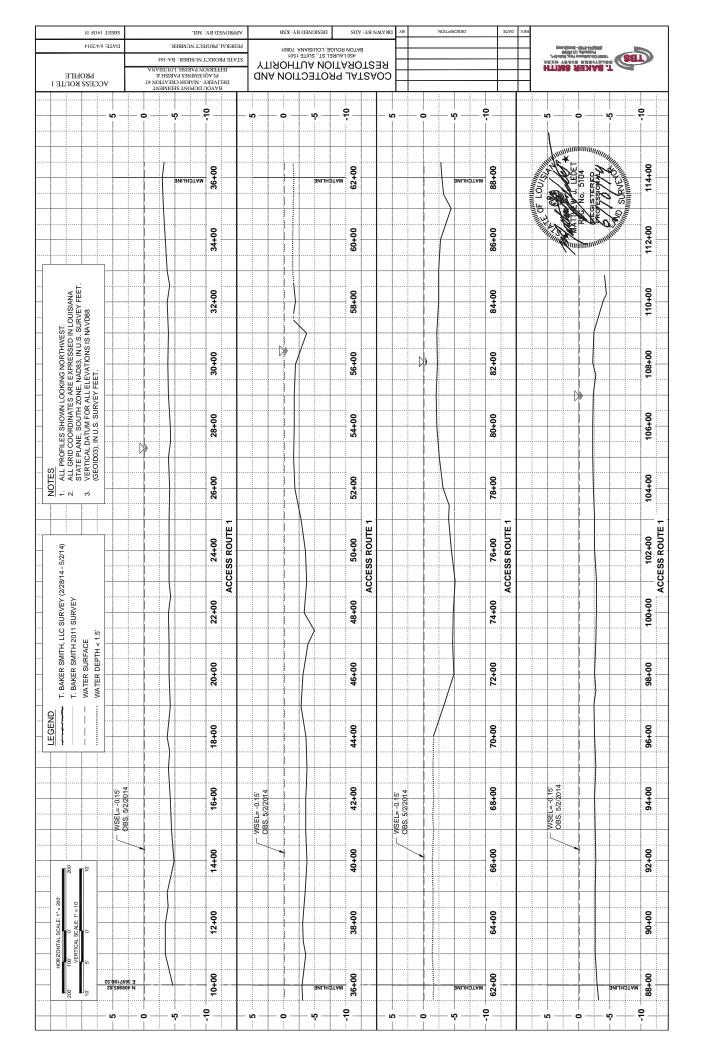


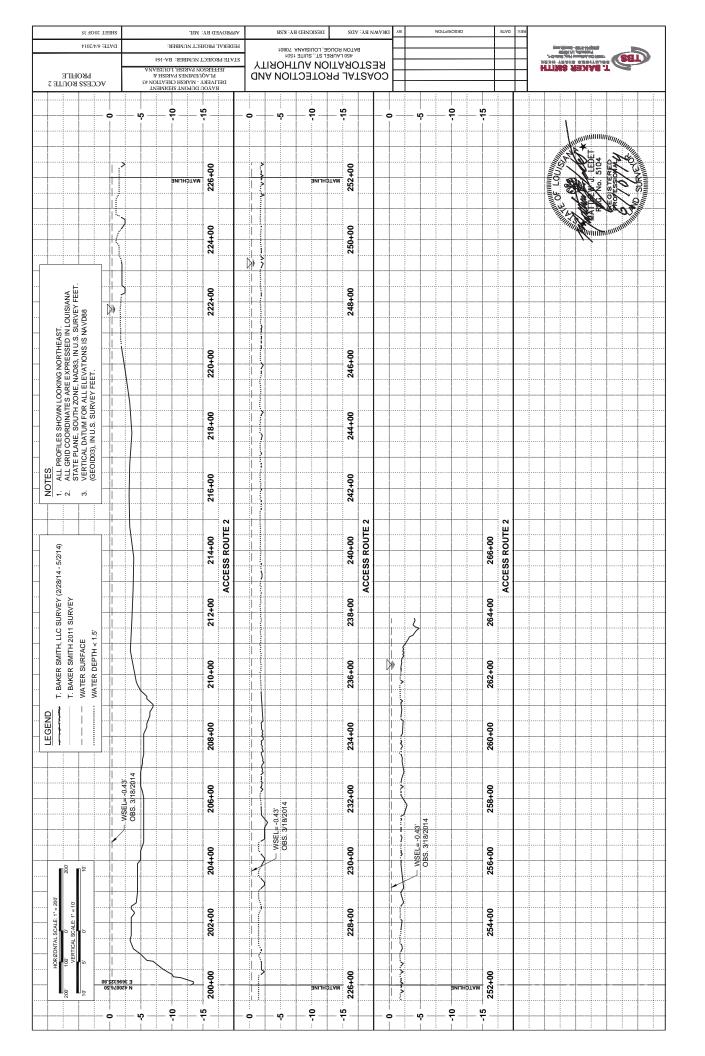


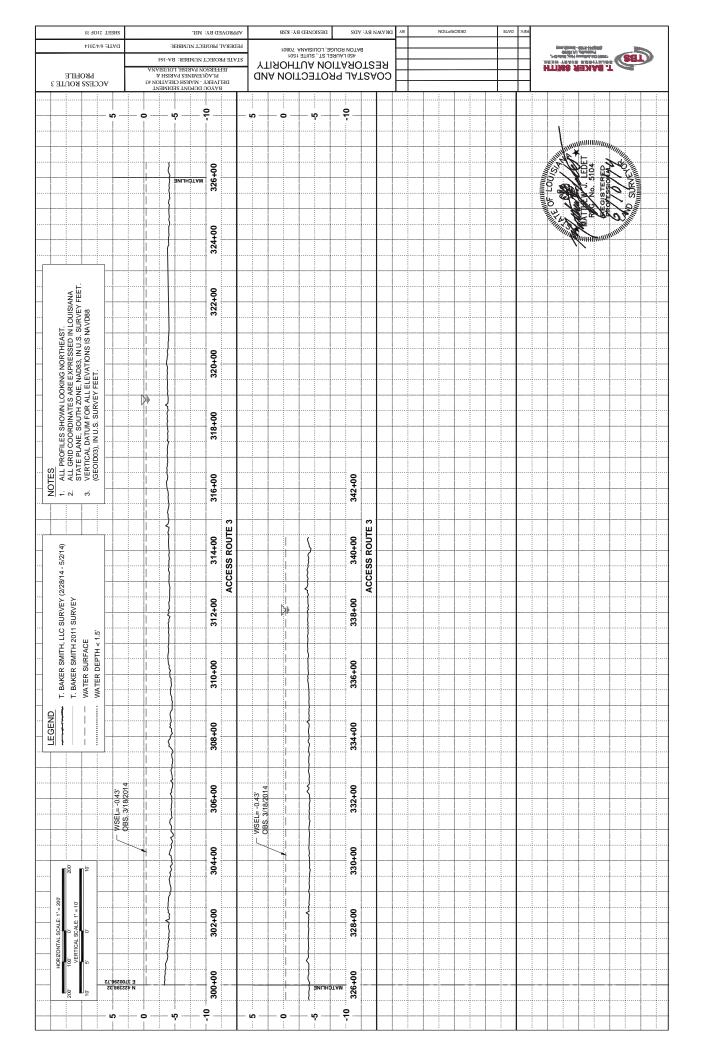


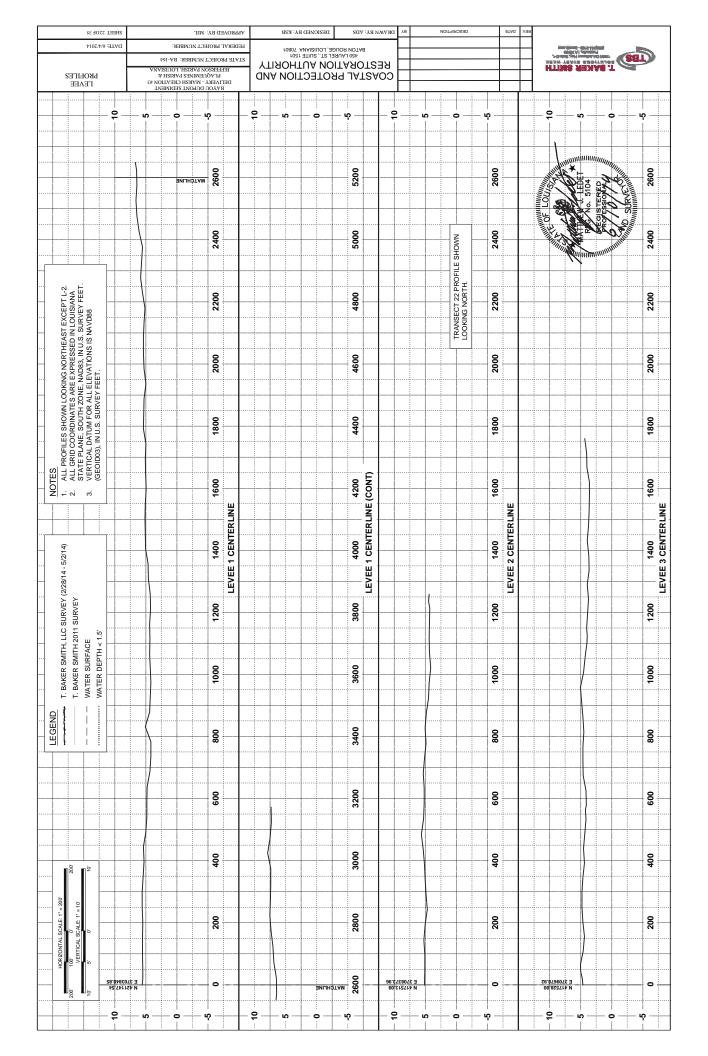


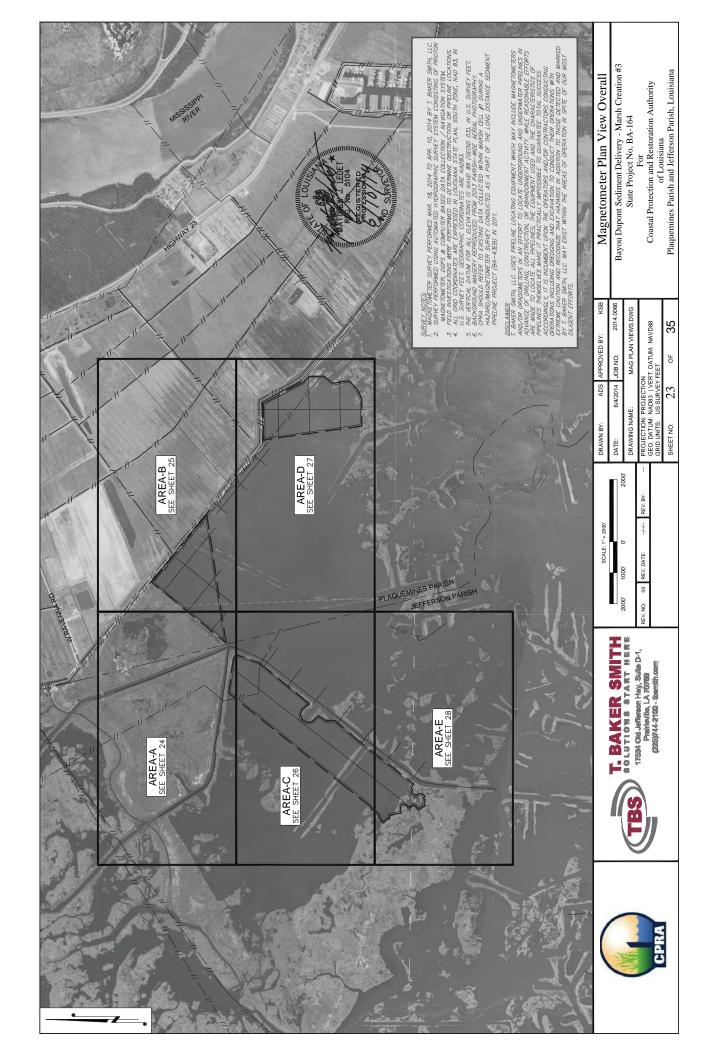


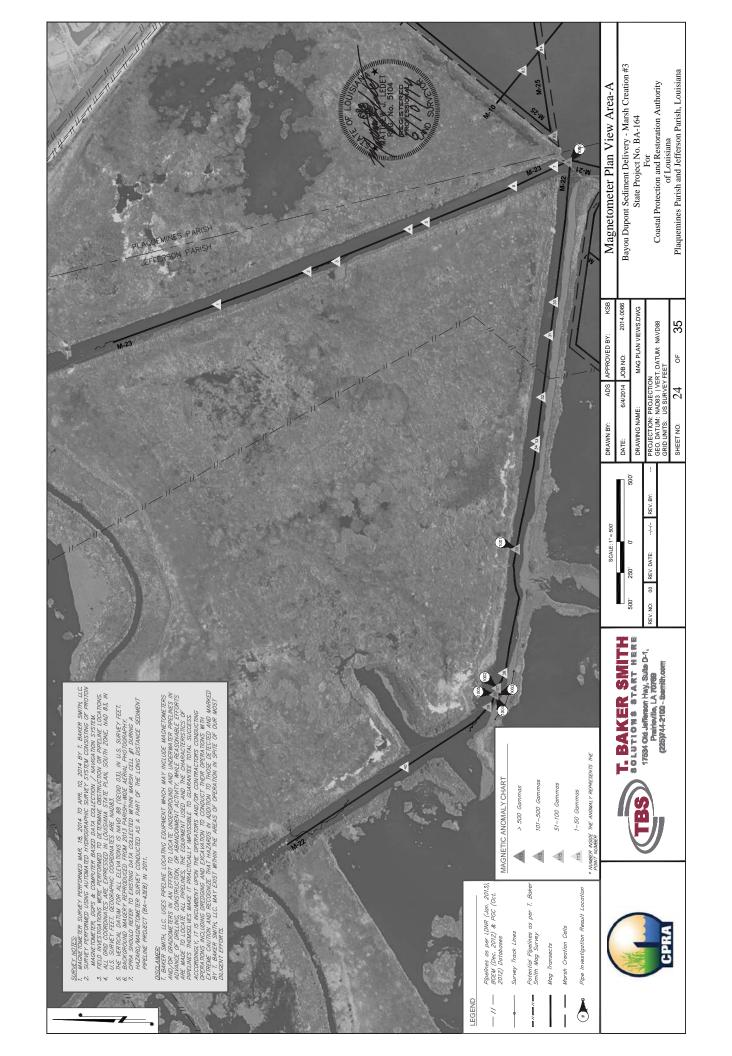


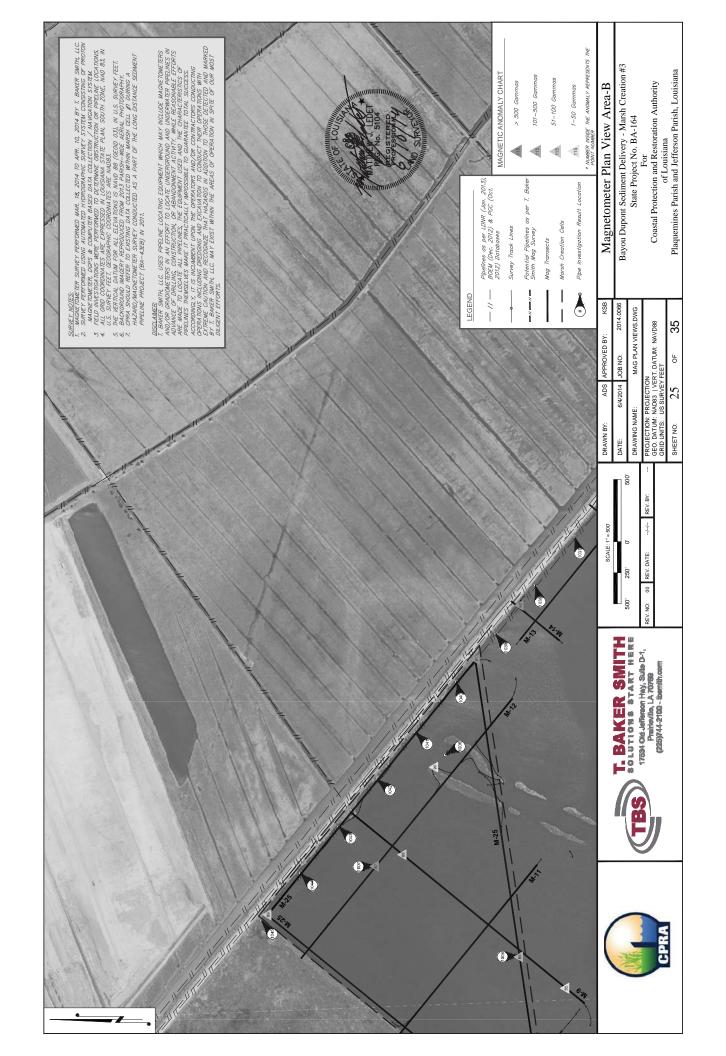


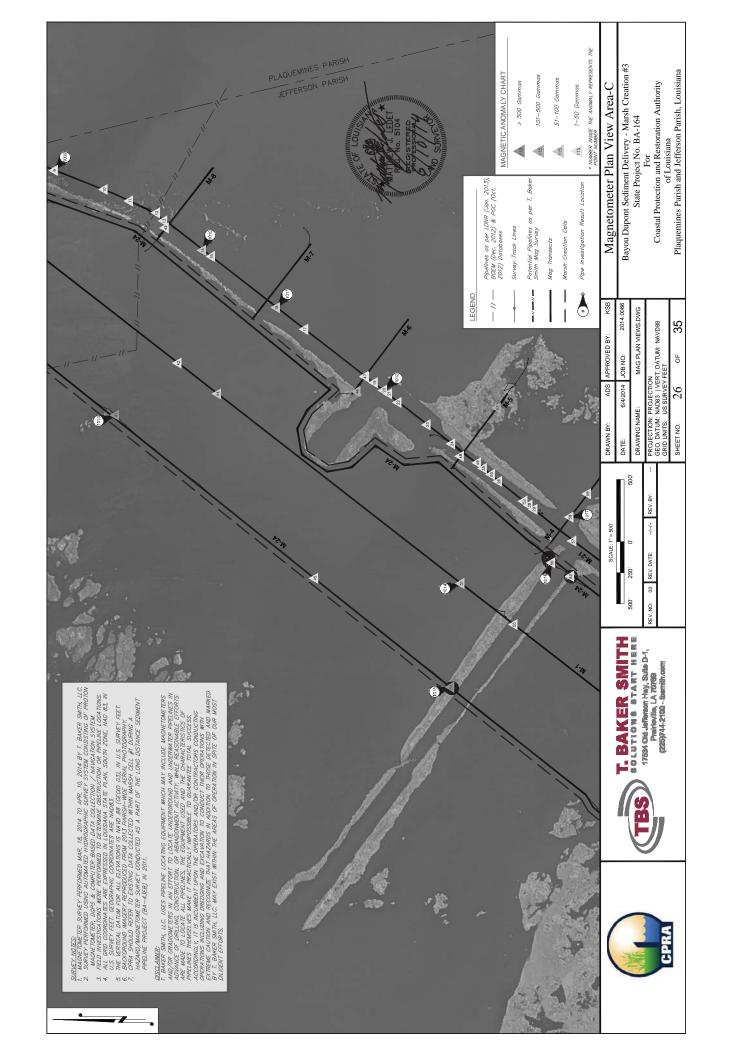


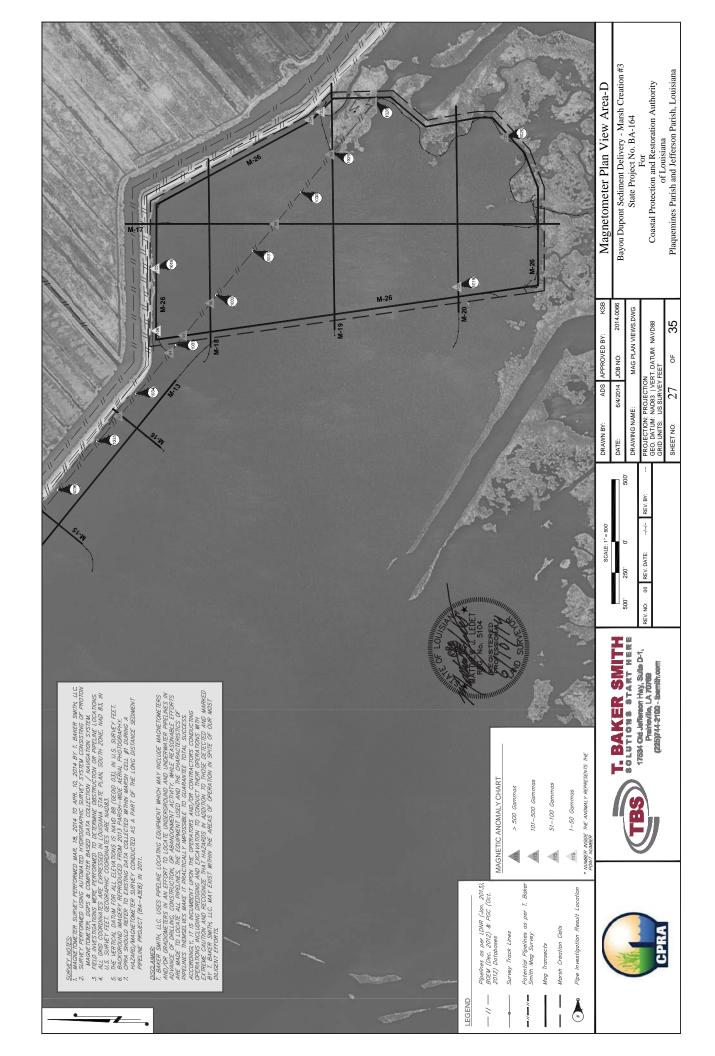


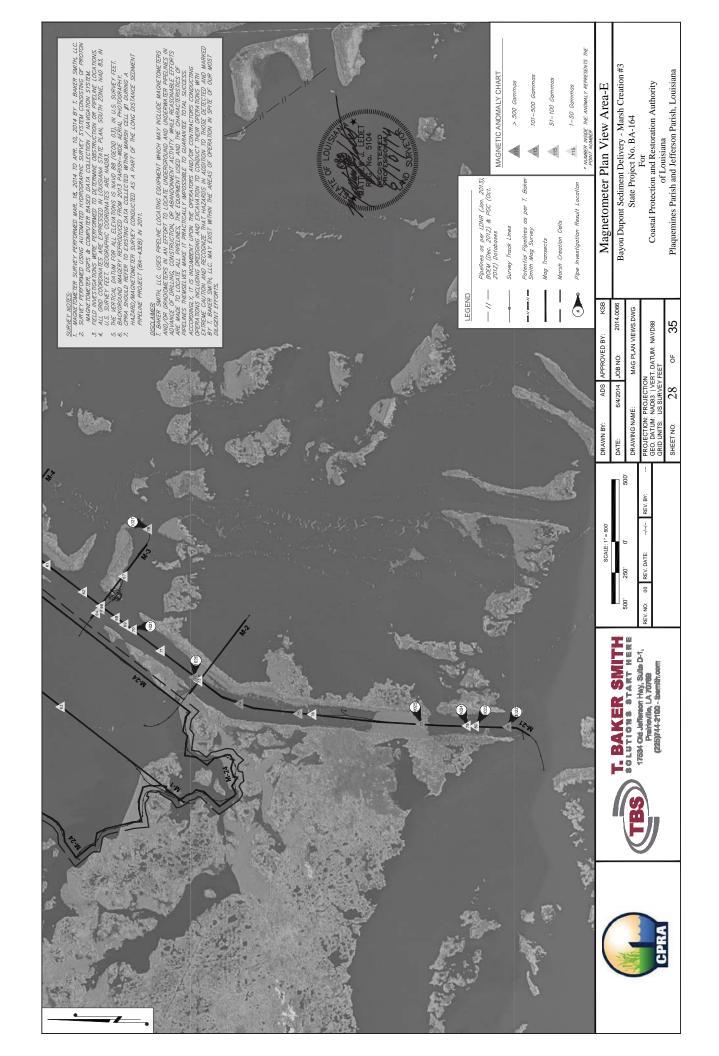












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	GAMMAS (nT)	5	9	22	4	14	11	37	1307	40	9	4	က	10	568	7	389	820	116	13	369	8	10
	LONG. (NAD 83)	W90° 00' 41.85"	W90° 00' 38.95"	W90° 00' 38.07"	W90° 00' 35.19"	W90° 00' 34.58"	W90° 00' 31.37"	W90° 00' 29.64"	W90° 00' 29.28"	W90° 00' 42.02"	W90° 00' 45.04"	W90° 00' 50.67"	W90° 00' 54.66"	W90° 00' 55.24"	W90° 01' 04.52"	W90° 01' 15.81"	W90° 01' 17.17"	W90° 01' 17.76"	W90° 01' 18.89"	W90° 01' 24.26"	W90° 00' 26.82"	W90° 00' 20.84"	W90° 00' 18.86"
	LAT. (NAD 83)	N29° 39' 08.09"	N29° 39' 00.87"	N29° 38' 58.56"	N29° 38' 52.76"	N29° 38' 51.40"	N29° 38' 44.39"	N29° 38' 41.11"	N29° 38' 39.98"	N29° 38' 41.24"	N29° 38' 41.65"	N29° 38' 42.31"	N29° 38' 42.79"	N29° 38' 42.85"	N29° 38' 44.48"	N29° 38' 45.60"	N29° 38' 46.14"	N29° 38' 46.34"	N29° 38' 46.90"	N29° 38' 53.56"	N29° 38' 41.13"	N29° 38' 43.53"	N29° 38' 42.08"
	EASTING (NAD 83)	3700653.00	3700917.50	3700997.20	3701258.00	3701314.10	3701605.20	3701761.30	3701794.80	3700669.00	3700402.70	3699904.80	3699551.90	3699500.60	3698680.40	3697683.00	3697562.30	3697510.30	3697409.10	3696927.90	3702010.90	3702535.10	3702711.80
	NORTHING (NAD 83)	421452.50	420726.00	420493.50	419910.70	419773.80	419069.50	418739.80	418626.20	418740.00	418778.80	418840.20	418884.50	418890.00	419045.20	419146.50	419199.60	419219.70	419274.90	419942.30	418744.90	418993.60	418848.60
	POINT #	7	2	က	4	5	9	7	8	30	31	32	33	34	35	36	37	38	39	40	82	83	8

	GAMMAS (nT)	28	135	2281	82	87	34	1286	5359
Y TABLE	LONG. (NAD 83)	W90° 00' 12.29"	W90° 00' 09.38"	W90° 00' 00.98"	W89° 59' 59.95"	W90° 00' 05.28"	W89° 59' 51.99"	W89° 59' 42.20"	W89° 59' 37.32"
AREA B MAGNETIC ANOMALY TABLE	LAT. (NAD 83)	N29° 38' 39.78"	N29° 38' 43.46"	N29° 38' 54.85"	N29° 38' 52.65"	N29° 39' 03.47"	N29° 38' 50.04"	N29° 38' 46.62"	N29° 38' 43.07"
AREA B MA	EASTING (NAD 83)	3703293.90	3703546.10	3704274.70	3704367.50	3703884.40	3705073.20	3705941.30	3706375.80
	NORTHING (NAD 83)	418623.80	418997.70	420157.00	419936.40	421023.40	419680.50	419344.80	418991.90
	POINT #	82	98	87	88	89	06	16	92

GAMMAS (nT)

LONG. (NAD 83)

LAT. (NAD 83)

EASTING (NAD 83)

NORTHING (NAD 83)

#

AREA C MAGNETIC ANOMALY TABLE

9 23

418310.40 3701730.90 N29° 38' 36.86" W90° 00' 30.05" 417909.10 3701576.70 N29° 38' 32.91" W90° 00' 31.85" 84 8 62 2 45 ო

W90° 00' 42.80"

416521.70 3700626.20 N29° 38' 19.28"

416294.60 3700451.10 N29° 38' 17.05" W90° 00' 44.81" 415804.50 3700067.70 N29° 38' 12.25" W90° 00' 49.22" 415733.20 3700021.80 N29° 38' 11.54" W90° 00' 49.75" 415657.90 3699960.90 N29° 38' 10.81" W90° 00' 50.45" 415618.30 3699931.80 N29° 38' 10.42" W90° 00' 50.78" 415543.90 3699862.10 N29° 38' 09.69" W90° 00' 51.58" 415306.90 3699683.30 N29° 38' 07.36" W90° 00' 53.64"

1 18 19

16

2 က

417487.40 3701388.90 N29° 38' 28.75" W90° 00' 34.03" 417427.90 3701324.70 N29° 38' 28.17" W90° 00' 34.76" 417117.50 3701087.00 N29° 38' 25.13" W90° 00' 37.50" 417044.70 3701038.40 N29° 38' 24.41" W90° 00' 38.06"

417704.20 3701484.00 N29° 38' 30.89"

5 7 12 13 4 15

6

W90° 00' 32.92"



30	61	22	103	13	7	45	
W90° 00' 35.40"	W90° 00' 50.60"	W90° 01' 07.53"	W90° 00' 50.53"	W90° 00' 49.17"	W90° 00' 56.55"	W90° 00' 57.16"	
3701268.30 N29° 38' 28.07"	3699932.40 N29° 38' 24.05"	3698447.40 N29° 38' 16.47"	3699950.90 N29° 38' 12.93"	3700072.30 N29° 38' 12.29"	3699429.90 N29° 38' 04.76"	414903.10 3699376.90 N29° 38' 03.40"	
3701268.30	3699932.40	3698447.40	3699950.90	3700072.30	3699429.90	3699376.90	
417416.80	416995.30	416212.80	415872.80	415809.40	415040.80	414903.10	
43	44	45	46	47	48	49	
		١					

996

41448.30 3699001.90 N29° 37' 58.94" W90° 01' 01.47" 417817.40 | 3699760.30 | N29° 38' 32.21" | W90° 00' 52.44" 417313.60 3700179.90 N29° 38' 27.17" W90° 00' 47.75"

49

42

23

2 6

7 22 23

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5

414855.80 3699331.90 N29° 38' 02.94" W90° 00' 57.68" 414732.90 3699226.90 N29° 38' 01.73" W90° 00' 58.89"

ო 2 8 6

> W90° 01' 00.71" W90° 01' 01.08"

> 414527.70 3699068.50 N29° 37' 59.72" 3699035.70 N29° 37' 59.32"

414486.70

28 59 4

27

2

W90° 00' 55.40"

3699530.20 N29° 38' 05.44"

415110.80

54

25 56

9
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HE FIELD ES.		REV. NO: 00	
NOTE: ALL MAGNETIC ANOMALIES ARE OBTAINED BASED ON GAMMA HEIGHT, SIGNATURE TYPE, AND DURATION. EACH ANOMALY IS CONSIDERED SIGNIFICANT AND HAS BEEN INVESTIGATED IN THE FIELD TO DETERMINE OBSTRUCTION OR PIPELINE LOCATION. SEE SHEET 31 FOR INVESTIGATION TABLES.	T. BAKER SMITH	17534 Cld Jenerson Hwy, Suite D-1, Prairieville, LA 70798	(225)744-2100 - themith.com
NOTE: ALL MAGNETIC ANOMALIES ARE DURATION. EACH ANOMALY IS TO DETERMINE OBSTRUCTION OR			7000

	L				
DET: NOB	2014.0066	MAG PLAN VIEWS.DWG	000	NAVD88	32
ADS APPROVED BT:	:ON BOC	MAG PLAI	z	FEET	OF
ADS	6/4/2014 JOB NO:	/E:	PROJECTIO	NAD83 VE US SURVEY	29
DRAWN BT:	DATE:	DRAWING NAME:		GEO. DATUM: NADB3 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET	SHEET NO:
			//- REV. BY:		
			//		
			REV. NO: 00 REV. DATE:		
			00		
			REV. NO:		

904-0006 Bayou Dupont Sediment Delivery - Marsh Creation #3 State Project No. BA-164 For For Coastal Protection and Restoration Authority of Indicates
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Magnetic Anomalies Table

		•		_			_	_		_	_	
	GAMMAS (nT)	23	61	80	148	1263	78	47	13	19	4	24
ABLE (CONT)	LONG. (NAD 83)	W90° 00' 58.24"	W90° 01' 08.15"	W90° 01' 00.75"	W90° 00' 52.18"	W90° 01' 17.60"	W90° 01' 11.97"	W90° 01' 06.37"	W90° 01' 04.41"	W90° 01' 02.21"	W90° 01' 00.11"	W90° 01' 07.62"
AREA C MAGNETIC ANOMALY TABLE (CONT)	LAT. (NAD 83)	N29° 38' 02.30"	N29° 38' 04.82"	N29° 37' 59.72"	N29° 38' 01.75"	N29° 38' 05.74"	N29° 38' 00.63"	N29° 37' 57.58"	N29° 37' 55.87"	N29° 37' 56.08"	N29° 37' 54.66"	N29° 37' 56.08"
REA C MAGNE	EASTING (NAD 83)	3699283.20	3698405.50	3699065.00	3699818.50	3697570.90	3698073.70	3698571.50	3698746.40	3698939.90	3699127.30	3698462.90
⋖	NORTHING (NAD 83)	414790.90	415035.10	414528.10	414741.70	415118.60	414608.60	414305.40	414134.80	414158.60	414016.80	414153.00
	POINT #	20	51	52	53	25	55	99	25	28	59	09

	GAMMAS (nT)	3510	15876	5371	4834	1318	4470	2169	12809	260	178	68	280	40	10
Y TABLE	LONG. (NAD 83)	W89° 59' 20.24"	W89° 59' 14.51"	W89° 59' 12.94"	W89° 59' 10.00"	W89° 59' 02.85"	W89° 59' 02.86"	W89° 58' 56.58"	W89° 58' 51.89"	W89° 58' 55.19"	W89° 59' 08.81"	W89° 58' 52.67"	W89° 58' 53.40"	W89° 59' 06.81"	W89° 59' 12.49"
AREA D MAGNETIC ANOMALY TABLE	LAT. (NAD 83)	N29° 38' 30.61"	N29° 38' 26.48"	N29° 38' 25.38"	N29° 38' 23.19"	N29° 38' 17.97"	N29° 38' 17.95"	N29° 38' 13.46"	N29° 38' 10.03"	N29° 37' 59.55"	N29° 38' 03.45"	N29° 38' 14.20"	N29° 38' 15.08"	N29° 38' 27.51"	N29° 38' 27.47"
AREA D MA	EASTING (NAD 83)	3707897.80	3708408.30	3708548.20	3708809.90	3709446.50	3709446.50	3710005.50	3710423.80	3710144.80	3708938.00	3710349.80	3710283.90	3709086.30	3708585.00
	NORTHING (NAD 83)	417750.50	417339.20	417229.60	417012.00	416492.20	416490.40	416042.80	415701.10	414639.50	415019.30	416122.10	416210.20	417451.80	417441.30
	FOINT #	93	94	92	96	26	86	66	100	101	102	103	104	105	106

POINT NORTHING EASTING LAT. (NAD 83) LONG. (NAD 84) 61 413872.60 3698552.70 NZ9° 37° 53.29° W90° 01° 62 413578.10 3698146.70 NZ9° 37° 52.29° W90° 01° 63 413758.00 3698147.80 NZ9° 37° 43.29° W90° 01° 64 413471.10 3698197.80 NZ9° 37° 43.02° W90° 01° 65 413434.10 3698197.80 NZ9° 37° 47.17° W90° 01° 66 413434.10 3698122.10 NZ9° 37° 47.17° W90° 01° 67 413253.10 3698122.00 NZ9° 37° 47.14° W90° 01° 69 413245.50 3698122.00 NZ9° 37° 47.14° W90° 01° 70 41376.50 3698162.80 NZ9° 37° 47.20° W90° 01° 71 412649.20 369762.80 NZ9° 37° 47.20° W90° 01° 72 412649.20 369762.80 NZ9° 37° 47.20° W90° 01° 74 412318.90 3697435.60 NZ9° 37° 32.24° W90° 01° 76 411731.90			AREA E MA	AREA E MAGNETIC ANOMALY TABLE	YTABLE	
413872.60 368855.70 NZ9. 37.53.29* 41378.10 3688336.90 NZ9. 37.52.29* 413471.80 369816.70 NZ9. 37.40.37* 413437.10 3698197.80 NZ9. 37.40.90* 413437.10 3698197.80 NZ9. 37.47.17* 413253.10 3698422.10 NZ9. 37.47.17* 41324.30 3698122.00 NZ9. 37.47.14* 41324.60 3698072.90 NZ9. 37.47.14* 41325.50 3698072.90 NZ9. 37.44.26* 41325.50 369762.80 NZ9. 37.41.29* 41264.10 369762.80 NZ9. 37.41.20* 41264.20 369762.80 NZ9. 37.41.20* 41264.20 369762.80 NZ9. 37.32.24* 411731.90 3697357.10 NZ9. 37.32.24* 410658.10 3697357.0 NZ9. 37.32.24* 410658.10 3697357.0 NZ9. 37.32.24* 410486.80 3697259.0 NZ9. 37.45.17* 410486.80 3697259.0 NZ9. 37.45.17*	# #	NORTHING (NAD 83)	EASTING (NAD 83)	LAT. (NAD 83)	LONG. (NAD 83)	GAMMAS (nT)
413578.10 3698336.90 N29° 37 50.40° 413758.00 368741.170 N29° 37 52.29° 413437.10 3698197.80 N29° 37 49.02° 413437.10 3698197.80 N29° 37 49.02° 413253.10 3698462.40 N29° 37 47.17° 413245.60 3698402.20 N29° 37 47.14° 413245.60 3698102.20 N29° 37 47.14° 413245.60 3698102.20 N29° 37 47.14° 413265.50 3698602.20 N29° 37 47.14° 412684.10 369762.80 N29° 37 41.63° 412649.20 389762.80 N29° 37 41.63° 412649.20 389762.80 N29° 37 32.24° 411731.90 3697350.70 N29° 37 32.24° 410658.10 3697350.70 N29° 37 32.60° 410658.10 3697350.70 N29° 37 32.60° 410486.80 3697259.40 N29° 37 35.60° 410486.80 3697259.40 N29° 37 19.27°	61	413872.60	3698552.70		W90° 01' 06.64"	9
413758.00 3897411.70 N29° 37 52.29° 413471.80 3688166.70 N29° 37 49.37° 413437.10 3698197.80 N29° 37 49.02° 413434.30 3698222.10 N29° 37 47.17° 413253.10 3698126.20 N29° 37 47.17° 413245.60 3698126.20 N29° 37 47.14° 413245.60 3698126.20 N29° 37 47.14° 413245.60 369762.30 N29° 37 47.14° 41255.50 369762.80 N29° 37 44.26° 41264.10 369764.90 N29° 37 44.26° 412649.20 369762.80 N29° 37 41.29° 41284.60 369735.00 N29° 37 32.24° 411731.90 3697350.70 N29° 37 32.24° 410656.10 369723.00 N29° 37 32.60° 410486.80 3697259.40 N29° 37 32.60° 410486.80 3697259.40 N29° 37 19.27° 410486.80 3697259.40 N29° 37 19.27°	62	413578.10	3698336.90	37.	W90° 01' 09.12"	9
41347180 368816.70 N29° 37 49.37 413437.10 3688197.80 N29° 37 49.02° 413434.30 3698222.10 N29° 37 48.99° 413253.10 3698462.40 N29° 37 47.17° 413314.10 3698126.20 N29° 37 47.17° 413245.60 3689072.90 N29° 37 47.14° 413176.90 3689032.40 N29° 37 44.26° 41265.25 368762.80 N29° 37 44.26° 41264.10 369764.90 N29° 37 41.29° 412649.20 369762.80 N29° 37 41.29° 412844.60 369735.71 N29° 37 33.36° 411731.90 3697357.10 N29° 37 32.24° 410858.10 3697357.10 N29° 37 32.60° 410486.80 3697259.0 N29° 37 32.60° 410486.80 3697259.0 N29° 37 45.17° 410486.80 3697259.0 N29° 37 45.17° 410486.80 3697259.0 N29° 37 19.27° 410486.80 3697259.0 N29° 37 19.27°	63	413758.00	3697411.70	N29° 37' 52.29"	W90° 01' 19.58"	37
413437.10 3688197.80 NZ9°37.49.02° 413434.30 3688462.40 NZ9°37.47.17° 413314.10 3688126.20 NZ9°37.47.14° 413245.60 3689072.90 NZ9°37.47.14° 413265.50 368762.80 NZ9°37.47.14° 412952.50 368762.80 NZ9°37.47.14° 412952.50 368762.80 NZ9°37.44.26° 412649.20 368762.80 NZ9°37.41.29° 412649.20 368762.80 NZ9°37.31.29° 412844.0 368735.710 NZ9°37.32.24° 410485.10 369735.710 NZ9°37.32.24° 410486.80 369723.20 NZ9°37.32.24° 410486.80 369723.20 NZ9°37.32.24° 410486.80 369725.90 NZ9°37.32.24° 410486.80 369723.20 NZ9°37.19.92° 410486.80 369725.90 NZ9°37.19.92°	64	413471.80	3698166.70	N29° 37' 49.37"	W90° 01' 11.06"	36
41343430 368822210 NZ9*3748.99* 413253.10 368846240 NZ9*3747.17* 413344.10 3698126.20 NZ9*3747.14* 413245.60 3698072.90 NZ9*3747.14* 413176.90 3689032.40 NZ9*3744.26* 412952.50 368768.20 NZ9*3744.26* 412664.10 3687649.00 NZ9*3744.26* 412649.20 369762.00 NZ9*3741.29* 412418.90 3697435.60 NZ9*3733.26* 411731.90 3697357.10 NZ9*3733.26* 410486.81 3697273.20 NZ9*3732.24* 410486.80 3697259.40 NZ9*3732.26* 410486.80 3697259.40 NZ9*3719.92* 410486.80 3697259.40 NZ9*3719.92*	65	413437.10	3698197.80	N29° 37' 49.02"	W90° 01' 10.72"	51
413253.10 3688462.40 NZ9° 37' 47.17" 413314.10 3698172.62 NZ9° 37' 47.14" 413245.60 3698072.90 NZ9° 37' 47.14" 41295.250 3697862.80 NZ9° 37' 47.14" 41295.250 3697862.80 NZ9° 37' 41.63" 412649.20 36974620.80 NZ9° 37' 41.63" 412649.20 369745.60 NZ9° 37' 41.63" 41218.90 369735.71 NZ9° 37' 32.24" 411351.90 369735.71 NZ9° 37' 32.24" 411355.10 369841.50 NZ9° 37' 23.60" 410486.80 3697259.40 NZ9° 37' 23.60" 410486.80 3697259.40 NZ9° 37' 19.92" 410480.80 3697259.40 NZ9° 37' 19.92"	99	413434.30	3698222.10	N29° 37' 48.99"	W90° 01' 10.44"	7
41314.10 3688126.20 NZ9' 37' 47.81" 413245.60 3698072.90 NZ9' 37' 47.14" 412952.50 369762.80 NZ9' 37' 44.26" 412643.10 369762.80 NZ9' 37' 41.63" 412649.20 369762.80 NZ9' 37' 41.63" 412649.20 369762.08 NZ9' 37' 31.80.4" 412649.20 369735.70 NZ9' 37' 32.24" 411365.10 369735.71 NZ9' 37' 32.24" 410468.80 369725.30 NZ9' 37' 32.86" 410468.80 3697259.40 NZ9' 37' 45.17" 410480.80 3697259.40 NZ9' 37' 19.27"	29	413253.10	3698462.40	N29° 37' 47.17"	W90° 01' 07.74"	က
413245.60 3688072.90 NZ9' 37' 47'.14" 412952.50 3698032.40 NZ9' 37' 44.26" 412643.10 369764.80 NZ9' 37' 41.63" 412643.20 3697620.80 NZ9' 37' 41.63" 412649.20 3697630.80 NZ9' 37' 31.04" 411644.60 369735.71 O NZ9' 37' 33.35" 411731.90 369735.71 O NZ9' 37' 32.24" 410688.10 369735.72 NZ9' 37' 32.24" 410486.80 3697259.40 NZ9' 37' 32.66" 410486.80 3697259.40 NZ9' 37' 19.92" 410480.80 3697259.40 NZ9' 37' 19.92"	89	413314.10	3698126.20	N29° 37' 47.81"	W90° 01' 11.54"	12
413176.90 3688032.40 NZ9' 37' 46.47" 412952.50 369768.280 NZ9' 37' 44.28" 412649.20 3697649.00 NZ9' 37' 41.59" 412318.90 369745.00 NZ9' 37' 31.59" 411318.90 369745.00 NZ9' 37' 31.35" 411731.90 369735.71 ONZ9' 37' 32.24" 411055.10 369735.72 NZ9' 37' 32.68" 410486.80 3697259.40 NZ9' 37' 21.99" 410486.80 3697259.40 NZ9' 37' 19.92" 410420.90 3697256.90 NZ9' 37' 19.92"	69	413245.60	3698072.90	N29° 37' 47.14"	W90° 01' 12.16"	13
41295250 369786280 NZ9°37 44.26° 412684.10 3697649.00 NZ9°37 41.63° 412318.90 3697620.80 NZ9°37 41.22° 4112318.90 3697435.60 NZ9°37 33.35° 411731.30 3697350.70 NZ9°37 33.224° 410658.10 369735.00 NZ9°37 23.60° 413055.10 3698841.50 NZ9°37 19.92° 410426.80 369725.90 NZ9°37 19.92° 410426.80 369725.90 NZ9°37 19.92° 410426.80 369725.90 NZ9°37 19.92° 410426.90 369725.90 NZ9°37 19.92°	0.2	413176.90	3698032.40	N29° 37' 46.47"	W90° 01' 12.62"	29
412684.10 3697649.00 N29° 37' 41.63° 412649.20 3697620.80 N29° 37' 41.29° 412318.90 3697435.60 N29° 37' 38.04° 411731.90 3697357.10 N29° 37' 32.24° 410658.10 369725.00 N29° 37' 32.60° 413055.10 3698241.50 N29° 37' 45.17° 410486.80 3697259.00 N29° 37' 19.92° 410426.90 3697259.90 N29° 37' 19.92° 410426.90 3697259.90 N29° 37' 19.92° 410426.90 3697256.90 N29° 37' 19.27°	11	412952.50	3697862.80	N29° 37' 44.26"	W90° 01' 14.57"	13
41249.20 3697620.80 N29°37′41.29° 412318.90 3697435.60 N29°37′33.604° 411731.90 3697357.10 N29°37′32.24° 410658.10 3697273.20 N29°37′32.60° 413055.10 3698241.50 N29°37′45.17° 410486.80 3697259.40 N29°37′19.92° 410426.80 3697259.40 N29°37′19.92° 410426.90 3697256.90 N29°37′19.92°	72	412684.10	3697649.00	N29° 37' 41.63"	W90° 01' 17.03"	1860
412318.90 3697435.60 N29°37'38.04" 411844.60 3697357.10 N29°37'33.35" 411731.90 3697350.70 N29°37'32.24" 410858.10 3697273.20 N29°37'32.60" 413055.10 3698641.50 N29°37'45.17" 410486.80 3697259.40 N29°37'19.92" 410426.80 3697256.90 N29°37'19.92"	73	412649.20	3697620.80	N29° 37' 41.29"	W90° 01' 17.36"	10
41184460 3697357.10 N29°37°3235° 41173130 3697350.70 N29°37°3224° 410658.10 3698241.50 N29°37′23.60° 410486.80 3697259.40 N29°37′19.92° 410426.80 3697259.40 N29°37′19.92° 410420.90 3697256.90 N29°37′19.27°	74	412318.90	3697435.60	N29° 37' 38.04"	W90° 01' 19.50"	648
41173190 3697350.70 N29°37°32.24" 410658.10 3697273.20 N29°37°23.60" 413055.10 3698641.50 N29°37°19.92" 410486.80 3697259.40 N29°37°19.92" 410420.90 3697256.90 N29°37°19.92"	75	411844.60	3697357.10	N29° 37' 33.35"	W90° 01' 20.45"	113
410858.10 3697273.20 N29°37′23.60° 413055.10 3698841.50 N29°37′45.17° 410486.80 3697259.40 N29°37′19.92° 410420.90 3697256.90 N29°37′19.27°	9/	411731.90	3697350.70	N29° 37' 32.24"	W90° 01' 20.53"	28
413055.10 3698841.50 N29°37'45.17" 410486.80 3697259.40 N29°37'19.92" 410420.90 3897256.90 N29°37'19.27"	77	410858.10	3697273.20	N29° 37' 23.60"	W90° 01' 21.53"	12900
410486.80 3697259.40 N29° 37' 19.92" 410420.90 3697256.90 N29° 37' 19.27"	78	413055.10	3698841.50	N29° 37' 45.17"	W90° 01' 03.47"	64
410420.90 3697256.90 N29° 37' 19.27"	62	410486.80	3697259.40	N29° 37' 19.92"	W90° 01' 21.73"	48
	80	410420.90	3697256.90	N29° 37' 19.27"	W90° 01' 21.77"	18
81 410160.70 3697251.70 N29° 37' 16.70" W90° 01'	8	410160.70	3697251.70	N29° 37' 16.70"	W90° 01' 21.86"	7311



NOTE: ALL MAGNETIC ANOMALIES ARE OBTAINED BASED ON GAMMA HEIGHT, SIGNATURE TYPE, AND DURATION. EACH ANOMALY IS CONSIDERED SIGNIFICANT AND HAS BEEN INVESTIGATED IN THE FIELD TO DETERMINE OBSTRUCTION OR PIPELINE LOCATION, SEE SHEET 31 FOR INVESTIGATION TABLES.



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	REV. NO:	
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T. BAKER SMITH	17534 Old Jemenson Hwy, Suite D-1, Prairieville, LA 70798	(225)744-2100 - tbemith.com

ADS APPROVED BY: KSB): 2014.0066	MAG PLAN VIEWS.DWG	0000	GEO: DATION: NAUSS VERT. DATION: NAVD88 GRID UNITS: US SURVEY FEET	оғ 35
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Magnetic Anomalies Table (Cont)

			SHELL CRUDE PIPELINE	PIPELINE			
FOINT #	NORTHING (NAD 83)	EASTING (NAD 83)	LAT. (NAD 83)	LONG. (NAD 83)	T.O.P. EL. (FT.)	D.O.C. EL. (FT.)	DESC.
1028	415691.49	3710434.79	N29° 38' 09.93"	W89° 58' 51.76"	-3.12	3.3	PLINE
1029	416030.29	3710019.86	N29° 38' 13.33"	W89° 58' 56.42"	-2.38	1.8	PLINE
1030	416286.84	3709703.20	N29° 38' 15.91"	W89° 58' 59.97"	-1.90	2.1	PLINE
1031	416673.92	3709231.32	N29° 38' 19.80"	W89° 59' 05.27"	-3.34	2.3	PLINE
1032	416967.92	3708871.79	N29° 38' 22.75"	W89° 59' 09.30"	-3.65	2	PLINE
1033	417292.25	3708473.70	N29° 38' 26.00"	W89° 59' 13.77"	-3.39	1.7	PLINE
1034	417614.71	3708080.79	N29° 38' 29.24"	W89° 59' 18.18"	-3.34	2.9	PLINE
1035	417925.63	3707696.45	N29° 38' 32.36"	W89° 59' 22.49"	-4.14	3.5	PLINE
1036	418244.85	3707305.35	N29° 38' 35.57"	W89° 59' 26.88"	-4.29	4.0	PLINE
1037	418554.72	3706926.75	N29° 38' 38.68"	W89° 59' 31.13"	-4.69	4.0	PLINE
1038	418872.47	3706537.31	N29° 38' 41.87"	W89° 59' 35.50"	-4.36	4.5	PLINE
1039	419192.19	3706145.65	N29° 38' 45.08"	W89° 59' 39.90"	-4.25	4.3	PLINE
1040	419506.93	3705761.64	N29° 38' 48.24"	W89° 59' 44.21"	-3.18	4.4	PLINE
1041	419838.15	3705355.30	N29° 38' 51.57"	W89° 59' 48.77"	-3.45	4.2	PLINE
1042	420148.17	3704975.12	N29° 38' 54.68"	W89° 59' 53.04"	-3.23	3.7	PLINE
1043	420457.24	3704595.71	N29° 38' 57.78"	W89° 59' 57.30"	-2.99	3.6	PLINE
1044	420765.00	3704220.95	N29° 39' 00.87"	W90° 00' 01.50"	-4.00	3.4	PLINE
1045	421078.14	3703836.39	N29° 39' 04.02"	W90° 00' 05.82"	-6.07	5.0	PLINE

	DESC.	CRAB TRAP	TRASH	TRASH	TRASH	TRASH	TRASH
	EL. (FT.)	-7.79	-6.98	-7.66	-8.17	-8.34	-8.43
SATION	LONG. (NAD 83)	W90° 00' 29.19"	W90° 01' 04.43"	W90° 01' 17.09"	W90° 01' 17.75"	W90° 01' 17.72"	W90° 01' 17.66"
AREA A INVESTIGATION	LAT. (NAD 83)	3701802.66 N29° 38' 39.98"	N29° 38' 44.52"	N29° 38' 46.15"	N29° 38' 46.24"	N29° 38' 46.30"	3697518.25 N29° 38' 46.36"
	EASTING (NAD 83)	3701802.66	3698688.42	3697569.41	3697510.74	3697513.66	3697518.25
	NORTHING (NAD 83)	418626.15	419049.02	419200.70	419209.67	419215.83	419221.34
	POINT #	1000	1001	1002	1003	1004	1005

NOTE: GRADIOMETER WAS PULLED © 25' RADIUS AROUND POINTS 1007, 1013 & 1018 WITH NO ADDITIONAL ANOMALIES FOUND. BASED ON OUR PROFESSIONAL OPINION, THESE POINTS ARE NOT REPRESENTATIVE OF A CONTINUOUS PIPELINE.



			AREA B INVESTIGATION	GATION		
POINT #	POINT NORTHING # (NAD 83)	EASTING (NAD 83)	LAT. (NAD 83)	LAT. (NAD 83) LONG. (NAD 83)	EL. (FT.)	DESC.
1006	419598.63	3705172.38	3705172.38 N29° 38' 49.22" W89° 59' 50.88"	W89° 59' 50.88"	-4.23	TRASH
1007	420159.01	3704280.15	420159.01 3704280.15 N29° 38' 54.87" W90° 00' 00.91"	W90° 00' 00.91"	-1.85	METAL PIPE
1008	418998.98	3703554.92	418998.98 3703554.92 N29° 38' 43.47" W90° 00' 09.28"	W90° 00' 09.28"	-2.24	TRASH

			AREA C INVESTIGATION	IIGATION		
FOINT #	NORTHING (NAD 83)	EASTING (NAD 83)	LAT. (NAD 83)	LONG. (NAD 83)	EL. (FT.)	DESC.
1009	418312.82	3701737.48	N29° 38' 36.88"	W90° 00' 29.97"	-5.81	TRASH
1010	417118.50	3701095.46	N29° 38' 25.14"	W90° 00' 37.40"	N/A	CRABTRAP
1011	416523.05	3700636.08	N29° 38' 19.29"	W90° 00' 42.69"	N/A	CRABTRAP
1012	415655.75	3699972.68	N29° 38' 10.78"	W90° 00' 50.32"	-4.86	TRASH
1013	417825.79	3699762.39	N29° 38' 32.29"	W90° 00' 52.42"	0.65	PIPE
1014	415035.67	3698412.61	N29° 38' 04.82"	W90° 01' 08.07"	N/A	CRABTRAP
1015	415120.05	3697580.21	N29° 38' 05.75"	W90° 01' 17.49"	-0.04	CABLE
1016	414306.20	3698579.16	N29° 37' 57.58"	W90° 01' 06.28"	-0.27	TRASH
1017	414158.68	3698947.96	N29° 37' 56.08"	W90° 01' 02.12"	-3.66	CRABTRAP

	DESC.	2" PIPE	CRABTRAP	CRABTRAP	
	EL. (FT.)	-0.29	N/A	N/A	
IGATION	LAT. (NAD 83) LONG. (NAD 83)	W89° 59' 06.74"	W89° 59' 08.72"	W89° 58' 55.17"	
AREA D INVESTIGATION	LAT. (NAD 83)	417463.44 3709092.50 N29° 38' 27.63"	3708945.98 N29° 38' 03.55"	1020 414643.02 3710146.63 N29° 37' 59.59" W89° 58' 55.17"	
	EASTING (NAD 83)	3709092.50	3708945.98	3710146.63	
	NORTHING (NAD 83)	417463.44	415028.99	414643.02	
	POINT #	1018	1019	1020	

	DESC.	TRASH	TRASH	CRAB TRAP	TRASH	TRASH	TRASH	TRASH
	EL.(FT.)	N/A	-4.01	N/A	-6.17	-5.97	-2.83	N/A
GAIION	LONG. (NAD 83)	W90° 01' 12.49"	W90° 01' 21.84"	W90° 01' 21.64"	W90° 01' 21.72"	W90° 01' 21.42"	W90° 01' 17.03"	W90° 01' 03.38"
AKEA E INVESTIGATION	LAT. (NAD 83)	N29° 37' 46.46"	N29° 37' 16.74"	N29° 37' 19.22"	N29° 37' 19.90"	N29° 37' 23.59"	N29° 37' 41.71"	N29° 37' 45.18"
	EASTING (NAD 83)	3698044.05	3697253.58	3697267.91	3697260.75	3697282.83	3697648.86	3698849.54
	NORTHING (NAD 83)	413176.78	410164.66	410415.48	410484.73	410857.53	412692.42	413056.34
	POINT #	1021	1022	1023	1024	1025	1026	1027



6/4/2014 JOB	MAC	JECTION	33 VER I. D. URVEY FEET	31
DATE: 6/4	DRAWING NAME:	PROJECTION: PROJECTION	GRID UNITS: US SURVEY FEET	SHEET NO:
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Bayou Dupont Sediment Delivery - Marsh Creation #3 State Project No. BA-164 For Coastal Protection and Restoration Authority of Louisiana

					DRAWN BY:		ADS APPROVED BY:	O BY: KSB	Pipeline Investigation Table
I					DATE:	6/4/2014	6/4/2014 JOB NO:	2014.0066	Bayou Dupont Sediment Delivery - Marsh Creation #3
					DRAWIN	DRAWING NAME:	MAG PLA	MAG PLAN VIEWS.DWG	State Project No. BA-164
	REV. NO:	00	REV. NO: 00 REV. DATE://- REV. BY:	//	- PROJEC	PROJECTION: PROJECTION	NO.	0000	For
					GRID UN	GEO. DATUM: NAD83 VER I. DATUM: NAVD88 GRID UNITS: US SURVEY FEET	FEET	: NAVD88	Coastal Frotection and Restoration Authority of Louisiana
					SHEET	знеет ио: 31	31 оғ	35	Plaquemines Parish and Jefferson Parish, Louisiana

	D	EASTING	3701074.58	3698113.65	3698720.53	3699326.27	3699933.05	3700534.18	3701138.40	3701751.78	3704708.01	3702949.33	3704288.47	3705627.61	3708189.76	3706093.16	3706868.67	3707644.17	3709446.43	3709970.84	3710582.08	3710399.03
NSECTS	END	NORTHING	418464.44	412272.01	413067.77	413863.43	414662.85	415462.01	416245.72	417035.50	420355.17	418656.60	418856.38	419056.15	417292.84	418677.33	418045.98	417414.64	414202.17	417031.51	416038.85	415036.55
MARSH AREA TRANSECTS	BEGINNING	EASTING	3696639.82	3697517.47	3698123.78	3698729.52	3699330.20	3699931.33	3700540.71	3701168.06	3703170.79	3702271.30	3702902.32	3703533.34	3706095.90	3706408.83	3707184.34	3707959.84	3709446.43	3708451.60	3708593.14	3708734.67
MA		NORTHING	412767.93	412727.05	413522.08	414317.75	415116.32	415915.47	416711.02	417489.94	418474.54	419208.12	419983.89	420759.65	418997.47	419065.08	418433.74	417802.39	417702.17	417013.07	416014.71	415016.36
			M-1	M-2	M-3	M-4	M-5	9-W	M-7	M-8	6-M	M-10	M-11	M-12	M-13	M-14	M-15	M-16	M-17	M-18	M-19	M-20

	EASTING	3701813.55	3701341.96	3699358.34	3698870.50	3698555.87	3698381.64	3698289.82	3697906.08	3697704.82	3697434.95	3697294.19	3697125.69	3696303.02	3701813.55	3701614.58	3700859.93	3700687.02	3700347.03
щ	NORTHING	418613.67	418653.84	418908.37	419014.04	419072.62	419057.01	419027.22	419103.92	419134.14	419253.36	419382.25	419641.25	420895.65	418613.67	419035.59	420887.75	421356.85	422297.27
CCESS ROUT								M-22									M-23		
CENTERLINE ACCESS ROUTE	EASTING	3697180.52	3697242.50	3697262.42	3697292.60	3697400.88	3697489.26	3698225.90	3698831.65	3699458.49	3700686.65	3701300.95	3701417.10	3701543.88	3701748.54	3701813.55			
	NORTHING	409985.82	410091.17	410720.59	411219.32	412213.44	412462.48	413441.79	414237.45	415017.27	416594.86	417383.93	417562.29	417831.72	418348.53	418613.67			
									M-21										



		MARSH ARE	MARSH AREA BOUNDARY		
	NORTHING	EASTING		NORTHING	EASTING
	417658.60	3701241.18		421030.20	3703882.18
	416093.86	3699964.04	M-25	418773.83	3702040.80
	416278.98	3699800.51		419354.38	3705932.38
	416356.66	3699650.55		417452.50	3708515.56
	416319.59	3699443.18		417449.19	3709602.52
	416112.96	3699305.26		416202.91	3710277.38
	415916.67	3699339.85		416023.97	3710457.38
	415724.50	3699516.22		415563.31	3710467.66
	415495.87	3699357.52	M-26	415282.57	3710229.24
	415218.22	3699383.43		414860.89	3710302.78
	414505.02	3698759.16		414743.46	3710302.78
	412723.83	3697369.56		414486.88	3710019.64
	412777.50	3697217.43		414377.50	3709735.60
	412763.11	3697021.03		414377.50	3708951.52
	412584.45	3696942.56			
M-24	412408.12	3697025.26			
	412353.32	3696714.09			
	412484.58	3696610.52			
	412611.86	3696729.11			
	412809.71	3696656.64			
	412913.67	3696772.44			
	413099.15	3696765.31			
	413137.05	3696648.11			
	413112.76	3696489.39			
	413472.41	3696395.28			
	413638.45	3696196.13			
	413788.45	3696479.73			
	414030.91	3696703.02			
	418568.28	3700330.37			
	418421.59	3701381.65			
	418363.57	3701493.65			







REV. NO: 00 REV. DATE:

Mag Transect Table	Bayou Dupont Sediment Delivery - Marsh Creation #3	State Project No. BA-164	For	Coastal Protection and Restoration Authority	of Louisiana	Plaquemines Parish and Jefferson Parish, Louisiana
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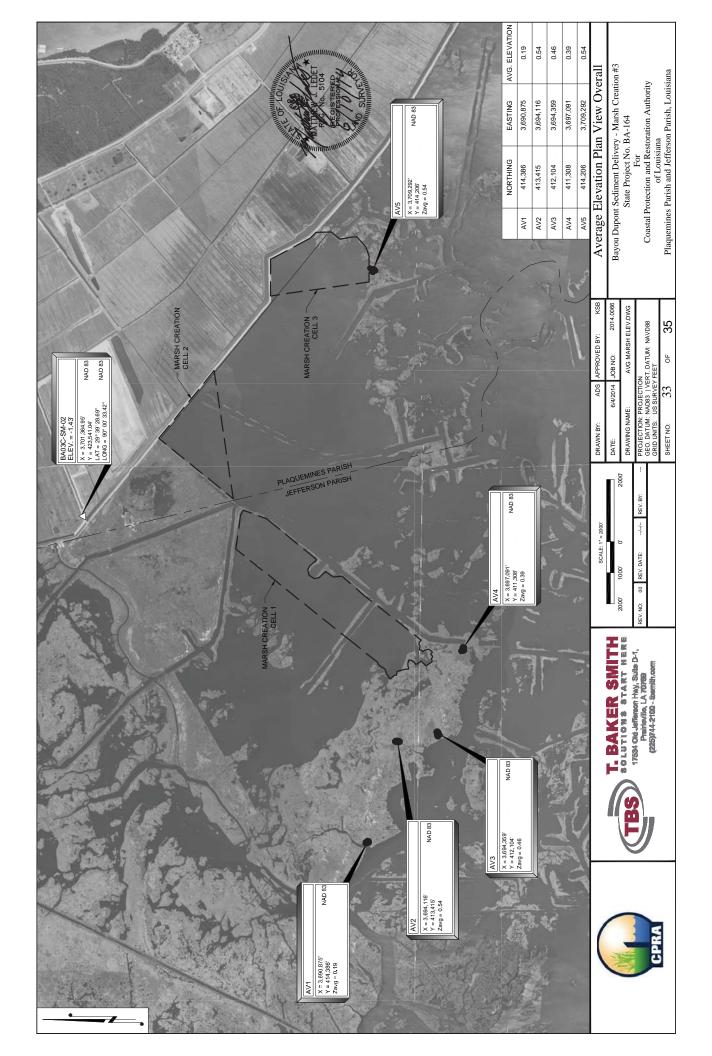
DRAWING NAME: MAG PLAN VIEWS.DWG
PROJECTION: PROJECTION
GEO DATUM: NAMBS I VERT. DATUM: NAVD88
GRID UNITS: US SURVEY FEET
SHEET NO: 32 OF 35

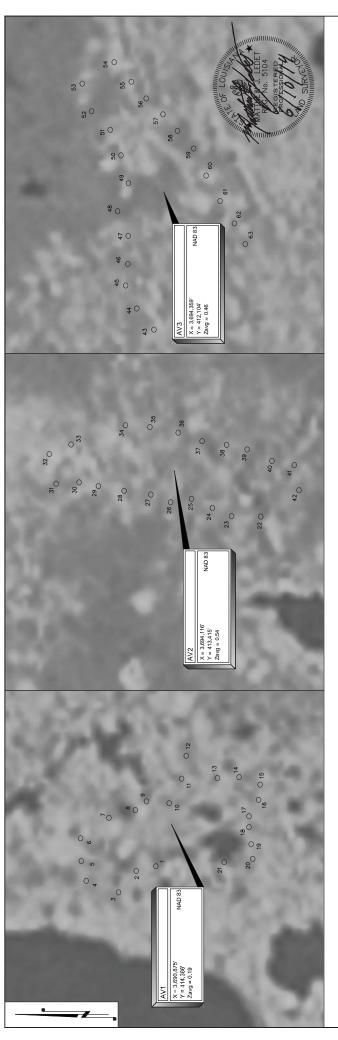
32

2014.0066

ADS APPROVED BY: 6/4/2014 JOB NO:

DRAWN BY: DATE:





#2 (AV2)	ELEVATION	0.57	0.68	0.49	0.56	0.57	0.51	0.67	0.58	0.37	0.43	0.54
LEVATION #	# LNIOA	33	34	35	36	37	38	39	40	41	42	AVERAGE
AVERAGE MARSH ELEVATION #2 (AV2)	ELEVATION	0.54	0.51	0.63	0.64	09:0	0.52	0.52	0.52	0.47	0.49	0.43
AVER	# LNIOA	22	23	24	25	26	27	28	59	30	31	32

ELEVATION -0.04 0.00 0.09 0.47 0.09 0.11 0.02 0.07 0.37 0.39 0.19

LNIOA

ELEVATION 0.29

LNIOA

12 13 4 15 16 17 18 19 20 21

> 0.05 0.00

7 က 0.33 0.22

AVERAGE MARSH ELEVATION #1 (AV1)

t3 (AV3)	ELEVATION	0.57	0.35	0.48	0.33	0.46	0.85	0.59	0.48	0.41	0.50	0.46
LEVATION#	# LNIOA	54	55	99	22	58	69	09	61	62	63	AVERAGE
AVERAGE MARSH ELEVATION #3 (AV3)	ELEVATION	0.62	0.45	0.35	0.46	0.44	0.39	0.32	0.44	0.34	0.41	0.41
AVER,	# LNIOA	43	44	45	46	47	48	49	20	51	52	53





AVERAGE

0.45

8

0.09 0.10 0.20

6

10 7

0.27 0.44

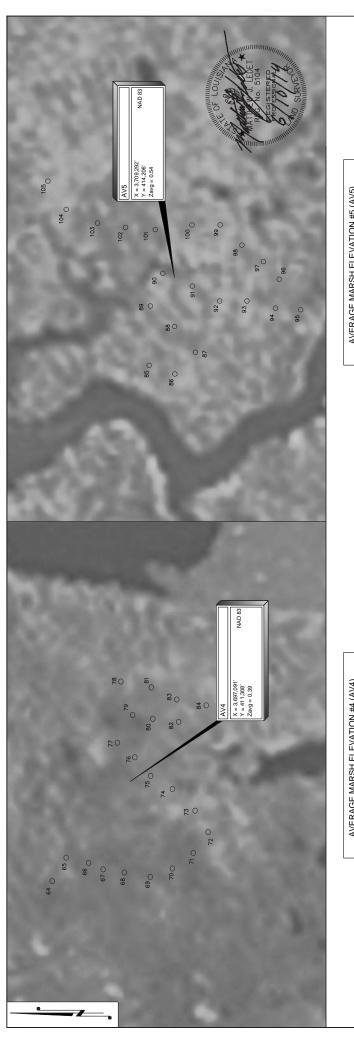
9 2



		SCALE: 1" = 40"	1" = 40'		DRAWN BY: AD	ADS APPROVED BY: KSB
					DATE: 6/4/201	6/4/2014 JOB NO: 2014.0066
5		,00	-	101		
F		0.7		7	DRAWING NAME:	AVG MARSH ELEV.DWG
REV. NO:	00	REV. NO: 00 REV. DATE:	//	//- REV. BY:	ᅩ	NOI
					GEO. DATUM: NAD83 VERT. D. GRID UNITS: US SURVEY FEET	GEO. DATUM: NAD83 VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET
					знеет ио: 32	or 35

Average Marsh Elevations	Bayou Dupont Sediment Delivery - Marsh Creation #3	State Project No. BA-164	ţ
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For Coastal Protection and Restoration Authority of Louisiana Plaquemines Parish and Jefferson Parish, Louisiana



£5 (AV5)	ELEVATION	0.62	0.40	0.61	99.0	0.58	0.56	0.45	0.47	0.47	0.48	0.54
LEVATION #	# LNIOd	96	26	86	66	100	101	102	103	104	105	AVERAGE
AVERAGE MARSH ELEVATION #5 (AV5)	ELEVATION	0.51	0.48	0.63	0.41	0.53	0.71	0.67	0.57	09:0	0.55	0.39
AVER/	# LNIOA	85	98	87	88	68	06	94	92	63	94	95

+4 (AV4)	ELEVATION	0.34	0.40	0.47	0.35	0.49	0.43	0.49	0.50	0.45	0.37	0.39
LEVATION #	# LNIOA	75	92	22	78	79	08	81	82	83	84	AVERAGE
AVERAGE MARSH ELEVATION #4 (AV4)	ELEVATION	0.45	0.38	0.32	0.39	0.34	0.31	0.27	0.37	0.36	0.39	0.40
AVER/	# LINIOA	64	92	99	29	89	69	70	7.1	72	73	74





		SCALE: 1" = 40"	1" = 40'		DRAWIN DT.	505	ADS AFFRONCE DI.	
	ľ				DATE:	6/4/2014 IOB NO:	ON SOL	2014.0066
5	100	5		,04	i			
+	0.7	>		7	DRAWING NAME:		AVG MARSH ELEV.DWG	ELEV.DWG
REV. NO: 00 REV. DATE:	REV.	DATE:	//	//- REV. BY:	PROJECTION: PROJECTION	ROJECTIO	7	
	-		1		■ GEO. DATUM: NAD83 VERT. DATUM: NAVD88	AD83 VE	RT. DATUM: NA	WD88
					GRID UNITS: US SURVEY FEET	SSURVEY	FEET	
					SHEET NO:	35	OF	35

Average Marsh Elevations	Bayou Dupont Sediment Delivery - Marsh Creation #3 State Project No. BA-164
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State Project No. BA-164
For Coastal Protection and Restoration Authority of Louisiana
Plaquemines Parish and Jefferson Parish, Louisiana

APPENDIX F DAILY PROGRESS REPORT TEMPLATE

DAILY CONSTRUCTION REPORT

DATE:

TO: Project Manager Chris William	ns				REPORT NO: 1	
Moffatt & Nie	chol, One Amer	rican Place				
301 Main Stro	eet, Suite 800	Pho	ne: 225-336-2	2075	CPRA Job No: B	A-164
Baton Rouge,	, LA 70825	Fax: 22	5-336-2076			
FROM:					M&N Job No.: 8	<u>3386-01</u>
PROJECT NAME: Bayou Dupont III – Ea	arthen Terrace	es (BA-164)				
EQUIPMENT:					REPORTING PI	ERIOD:
					BEGIN HOUR	:
					END HOUR:	
WORKERS					WEATHER CO	NDITIONS
					AM:	PM:
	WORK PERF	ORMED TODA	Y (AT END (OF SHIFT):		
DESCRIPTION	TODAY	PREVIOUS	TOTAL		COMMENTS	
MOBILIZATION (%)						
SURVEYS	%	%	%			
Magnetometer						
Pre – Construction						
Process						
As – Built						
EARTHEN TERRACE CONSTRUCTION	LF	LF	LF			
Terrace No. 1						
Terrace No. 2						
Terrace No. 3						
Terrace No. 4						
Terrace No. 5						
Terrace No. 6						
Terrace No. 7						
Terrace No. 8						
Terrace No. 9						
Terrace No. 10						
Terrace No. 11						
Terrace No. 12						
Terrace No. 13						
Terrace No. 14						
			1			

DE-MOBILIZATION (%)						
COMMENTS						
DELAYS (Downtime and Reasons):						
None				YIPO NO		
ANY DEVELOPMENT OCCURRED THAT MIGHT REQUIRE A CHANGE ORDER? YES NO						
REQUEST FOR INFORMATION (RFI) AND/ GENERAL COMMENTS:	OR DISCUSS.	ION WITH CO		(Nature of Discussi ENDATIONS:	Assigned to	
					Date Due	
	_					
SIGNED		DATE				

APPENDIX G SUPPLEMENTAL INFORMATION

ATTACHMENT G1

EQUIPMENT SCHEDULE

Гуре	Capacity & Production Rate	Manufacturer	Age & Condition	Location
QUIPME	ENT CATEGORY:			
QUIPME Type	ENT CATEGORY: Capacity & Production Rate	Manufacturer	Age & Condition	Location
				Location

Type	Capacity & Production Rate	Manufacturer	Age & Condition	Location

NOTE: The Plant and Equipment Schedule is for information purposes only. The information submitted is pertinent to the evaluation of the proposed dredges and their capability to perform the Work as required and as agreed to by the Bidder through the submittal of a Proposal. The Bidder may only omit information that he/she considers proprietary. As necessary, provide separate table for each category of equipment including excavating, earthworks, trucking, etc. Specify expected production rate of equipment. Use separate line for each major item. Use additional pages if necessary.

(THIS PAGE SHOULD BE COMPLETED AND RETURNED WITH WORK PLAN)

ATTACHMENT G2

STATEMENT OF EXPERIENCE

The Bidder is required to state below what work of similar magnitude is a judge of his/her experience, skill and business standing and of his/her ability to conduct the work as completely and as rapidly as required under the terms of the contract. Under Reference, please provide name, address, contact person, phone number, and email address.

PROJECT AND LOCATION	REFERENCE

NOTE: The Statement of Experience is for information purposes only. The information submitted is pertinent to the evaluation of the proposed dredges and their capability to perform the Work as required and as agreed to by the Bidder through the submittal of a Proposal.

(THIS PAGE SHOULD BE COMPLETED AND RETURNED WITH WORK PLAN)

APPENDIX H USFWS ENDANGERED SPECIES ACT LETTER



United States Department of the Interior

FISH AND WILDLIFE SERVICE 646 Cajundome Blvd. Suite 400 Lafayette, Louisiana 70506



January 6, 2012

OFFICE OF COASTAL MANAGEMENT

Colonel Edward R. Fleming District Engineer U.S. Army Corps of Engineers Post Office Box 60267 New Orleans, Louisiana 70160-0267

Dear Colonel Fleming:

The U.S. Fish and Wildlife Service (Service) has reviewed Joint Public Notice MVN-2009-1353-EFF, dated December 16, 2011. The Coastal Protection and Restoration Authority of Louisiana has requested a Department of the Army permit to construct the Mississippi River Long Distance Sediment Pipeline (State Project BA-43 EB) near the town of La Reussite, in Jefferson and Plaquemines Parishes, Louisiana. This report is submitted in accordance with provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act (MBTA, 40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), the Bald and Golden Eagle Protection Act (BGEPA, 54 Stat. 250, as amended, 16 U.S.C. 668a-d), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Service has been involved with the proposed project through pre-application meetings and supports this project in concept. Due to the nature and location of the proposed activities, the Service recommends that the following guidance be followed to avoid impacts to federally protected species.

Endangered Species

The pallid sturgeon (Scaphirhynchus albus) is an endangered fish found in Louisiana, in both the Mississippi and Atchafalaya Rivers (with known concentrations in the vicinity of the Old River Control Structure Complex); it is possibly found in the Red River as well. The pallid sturgeon is adapted to large, free-flowing, turbid rivers with a diverse assemblage of physical characteristics that are in a constant state of change. Detailed habitat requirements of this fish are not known, but it is believed to spawn in Louisiana. Habitat loss through river channelization and dams has adversely affected this species throughout its range. Entrainment issues associated with dredging operations in the Mississippi River should be addressed in future planning studies and/or in analyzing current project effects. In order to ensure protection of the pallid sturgeon, all personnel associated with the project should be informed of the potential presence of the pallid



sturgeon in the Mississippi River. Implementation of the following actions would help prevent any potential project related direct or indirect effects to the pallid sturgeon during dredging:

- (1) The cutterhead shall remain completely buried in the bottom material during dredging operations.
- (2) 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.
- (3) During dredging, the pumping rates shall be reduced to the slowest speed feasible while the cutterhead is descending to the channel bottom.

The endangered West Indian manatee (*Trichechus manatus*) may occur within the vicinity of the proposed project area. This species is known to regularly occur in Lakes Pontchartrain and Maurepas and their associated coastal waters and streams. It also can be found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm. Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80% of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing. Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution.

In the event of water-related activities, all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable and could provide useful data in the Service's on-going manatee conservation efforts.

During in-water work in areas that potentially support manatees, all on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impact to manatee:

- (1) All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the 50 foot buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).
- (2) If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.

- (3) If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.
- (4) Temporary signs concerning manatees should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½ " X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second temporary sign measuring 8½ " X 11" should be posted at a location prominently visible to all personnel engaged in water-related activities and should read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".
- (5) Collisions with, injury to, or sightings of manatees should be immediately reported to the Service's Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

Should the proposed project directly or indirectly affect the pallid sturgeon or West Indian manatee, or their habitats, further consultation with this office will be necessary.

Bald Eagles

The proposed project area may provide nesting habitat for the bald eagle (*Haliaeetus leucocephalus*), which was officially removed from the List of Endangered and Threatened Species as of August 8, 2007. However, the bald eagle remains protected under the MBTA and BGEPA. Comprehensive bald eagle survey data have not been collected by the Louisiana Department of Wildlife and Fisheries (LDWF) since 2008, and new active, inactive, or alternate nests may have been constructed within the proposed project area since that time.

Bald eagles typically nest in large trees located near coastlines, rivers, or lakes that support adequate foraging from October through mid-May. In southeastern Louisiana parishes, eagles typically nest in mature trees (e.g., baldcypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Bald eagles may also nest in mature pine trees near large lakes in central and northern Louisiana. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead). Furthermore, bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during these periods may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human

activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf. Those Guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. During any project construction, on-site personnel should be informed of the possible presence of nesting bald eagles in the vicinity of the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within 1,500 feet of the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary.

On September 11, 2009, the Service published two federal regulations establishing the authority to issue permits for non-purposeful bald eagle take (typically disturbance) and eagle nest take when recommendations of the NBEM Guidelines cannot be achieved. Permits may be issued for nest take only under the following circumstances where: 1) necessary to alleviate a safety emergency to people or eagles, 2) necessary to ensure public health and safety, 3) the nest prevents the use of a human-engineered structure, or 4) the activity or mitigation for the activity will provide a net benefit to eagles. Except in emergencies, only inactive nests may be permitted to be taken. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting consultations and issuance of permits. Should you need further assistance interpreting the guidelines, avoidance measures, or performing an on-line project evaluation, please contact this office.

Colonial Nesting Birds

The proposed project would be located in an area where colonial nesting waterbirds may be present. Colonies may be present that are not currently listed in the database maintained by the LDWF. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season. To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

1. For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet

of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present).

In addition, we recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.

If it is necessary to perform work within 1,000 feet of a known nest site during the nesting season, a migratory bird abatement plan will need to be developed in consultation with the Service. That plan will include deterrence measures to ensure that birds do not nest in proximity to the work area during the construction period. Patti Holland is the Service contact for such matters and can be reached at 337-291-3121.

We are not recommending compensatory mitigation for the proposed impacts to jurisdictional wetlands, as project implementation would result in a substantial in-kind net gain of wetland functions and values. The above findings and recommendations constitute the report of the Department of the Interior. Please contact Seth Bordelon (337/291-3138) of this office if additional information is needed.

Sincerely,

Brad S. Rieck

Acting Field Supervisor

Louisiana Ecological Services Office

cc: EPA, Dallas, TX

LDWF, Baton Rouge, LA LDNR, Baton Rouge, LA

APPENDIX I

LDNR SECONDARY MONUMENTS

BA03C-SM-02



VICINITY MAP Not to Scale

Reproduced from Louisiana 2005 DOQQ

Station Name: "BA03C SM 02"

Location: From La Highway 23 at St. Rosalie, Louisiana, which is located just south of oil storage tanks at Alliance, Louisiana proceed west on West Ravenna Road for approximately 2 miles to the monument on the right.

Monument Description: NGS style floating sleeve monument; datum point set on 9/16" stainless steel sectional rods driven 48 feet to refusal, set in sand filled 6" PVC pipe with access cover set in concrete, flush with ground.

Stamping: BA03C-SM-02

Installation Date: 2002 Date of Survey: February 2003

Monument Established By: JCLS

For: CPRA, OCPR

Adjusted NAD83 Geodetic Position (NSRS2007) Lat. 29"39"28.68864" N Long. 090"00"33.42327" W

Adjusted NAD83 Datum LSZ (1702) Ft (NSRS2007)

423,541.04 E= 3,701,364,95

Adjusted NAVD88 Height (2006.81) Elevation = -1.43 feet (-0.437 mtrs)

Ellipsoid Height = -25.531 mtrs. Geoid03 Height = -25.094 mtrs. (2004.65)

FOR REFERENCE ONLY LCZ Adjusted NAVD88 Height (Geoid99) Elevation = -0.67 feet (-0.203 mtrs)



BA41-SM-01



VICINITY MAP Not to Scale

Reproduced from Louisiana 2005 DOQQ

Station Name: "BA41-SM01"

Location: Located in Jefferson Parish, Louisiana, approximately 1.3 miles southeasterly from the boat launch on Bayou Barataria at the end of Jean Lafitte Blvd. south of Lafitte, Louisiana and is on the east bank of Bayou Barataria immediately north of the cut into the pen. The Monument is located 16.8 feet northeast of a Texaco Pipeline Sign and 26.5 feet northeast of a creosote post with PK Nail in the center. Permission is required for Right of entry from Webb-Milling. Prior to entry, please contact Skip Haller at (228) 832-7878 or (228) 324-6490.

Monument Description: NGS Style floating sleeve monument; 9/16" stainless steel rods driven 60 feet to refusal, set in a sand filled 6" PVC pipe with access cover set flush with the ground.

Stamping: BA41-SM-01

Installation Date: 2006 Date of Survey: November 2006

Monument Established By: JCLS

For: JCLS

Adjusted NAD83 Geodetic Position (NSRS2007)

Lat. 29°38'36.00226" N Long. 090°05'44.42219" W

Adjusted NAD83 Datum LSZ (1702) Ft (NSRS2007) N= 417.912.61

N= 417,912.61 E= 3,673,985.63

Adjusted NAVD88 Height (2006.81)

Elevation = 4.22 feet (1.286 mtrs)

Ellipsoid Height = -23.820 mtrs. Geoid03 Height = -25.106 mtrs. (2004.65)

