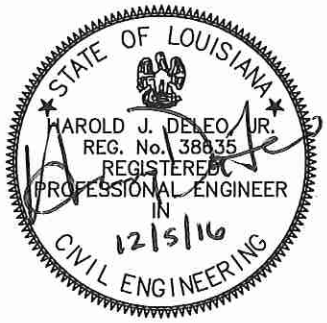
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY - WEST

WEST JEFFERSON LEVEE DISTRICT | ALGIERS LEVEE DISTRICT

WBV – 14e.2 – Levee Lift Prior to Armoring

Southeast Louisiana Flood Protection Authority - West

Jefferson Parish, Louisiana



Construction Solicitation And Specifications

December 2016

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2.	GENERAL NOTES & LEGEND
3.	BASELINE & EXISTING FACILITIES TABULATION
4.	CONSTRUCTION ACCESS AND LAYOUT
5.	PLAN & PROFILE, C/L STA 100+00 TO C/L STA 116+00
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ADVERTISEMENT FOR BIDS

Sealed bids will be received by the Southeast Louisiana Flood Protection Authority - West, 7001 River Road, Marrero, LA 70072 until 10:00am on January 25th, 2017.

ANY PERSON REQUIRING SPECIAL ACCOMMODATIONS SHALL NOTIFY SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY – WEST OF THE TYPE(S) OF ACCOMMODATION REQUIRED NOT LESS THAN SEVEN (7) DAYS BEFORE THE BID OPENING.

FOR: **WBV 14e.2 LEVEE LIFT PRIOR TO ARMORING**

PROJECT NUMBER: **SLFPAW-2017-277**

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

http://www.slfpaw.org

Printed copies can also be obtained from:

SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY – WEST (SLFPA-WEST)
7001 River Road
Marrero, Louisiana,
70072 Attn: Jesse Noel
Email:
info@slfpaw.org
Phone: (504) 340-0318
Fax: (504) 371-6868

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

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

A MANDATORY PRE-BID CONFERENCE WILL BE HELD
at *9:00 AM CST* on *January 11th, 2017* at *Southeast Louisiana Flood Protection Authority – West, 7001 River Road, Marrero, LA.*

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 10:00 AM CST on January 11th, 2017 a t WBV 14e.2 LA Hwy 3134/Estelle Pump Station

The jobsite visit is not mandatory, but it is highly encouraged for those submitting a bid. The jobsite visit being conducted by SLFPA-WEST 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.

Contact Jesse Noel at (504) 340-0318 if directions are needed to the Mandatory Pre-Bid Conference or the highly encouraged Jobsite Visit.

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

Bidder is required to comply with provisions and requirements of LA R.S.38:2212 (A)(1)(c). No bid may be withdrawn for a period of thirty (30) days after receipt of bids, except under the provisions of LA. R.S. 38:2214.

The Owner reserves the right to reject any and all bids for just cause. In accordance with La. R.S. 38:2212 (A)(1)(b), the provisions and requirements of this Section, those stated in the advertisement bids, and those required on the bid form shall not be considered as informalities and shall not be waived by any public entity.

When this project is financed either partially or entirely with State Bonds or federal funds, the award of this Contract is contingent upon the granting of lines of credit, the sale of bonds by the Bond Commission or the commitment of federal funds. The State shall incur no obligation to the Contractor until the Contract Between Owner and Contractor is fully executed.

SOUTHEAST LOUISIANA
FLOOD PROTECTION
AUTHORITY – WEST
JOHN R. MONZON, P.E. – REGIONAL
DIRECTOR

INSTRUCTIONS TO BIDDERS

COMPLETION TIME:

The Bidder shall agree to fully complete the Contract within **(330)** 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 Contract 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 **One-Thousand, Five Hundred ($1,500.00)** 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 shall be held at the time and location described in the Advertisement for Bids The purpose of the Pre-Bid Conference is to familiarize Bidders with the requirements of the Project and the intent of the Bid Documents, and to receive comments and information from interested Bidders. If the Pre-Bid Conference is stated in the Advertisement for Bids to be a Mandatory Pre-Bid Conference, bids shall be accepted only from those bidders who attend the Pre-Bid Conference. Contractors who are not in attendance for the entire Pre-Bid Conference will be considered to have not attended.

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

ARTICLE 3

BIDDER'S REPRESENTATION

3.1 Each Bidder by making his bid represents that:

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

3.1.2 He has had the opportunity to visit the site and has familiarize 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 Southeast Louisiana Flood Protection Authority - West as stated in the Advertisement for Bids.

4.1.1.2 In addition to the availability of printed Bid Documents, the Southeast Louisiana Flood Protection Authority - West 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 Southeast Louisiana Flood Protection Authority - West 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 Southeast Louisiana Flood Protection Authority - West 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 Southeast Louisiana Flood Protection Authority - West to have received a complete set of Bid Documents.

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

4.4.3 Except as described herein, addenda shall not be issued within a period of seventy-two (72) hours prior to the advertised time for the opening of bids, excluding Saturdays, Sundays, and any other legal holidays. If the necessity arises of issuing an addendum modifying plans and specifications within the seventy-two (72) hour period prior to the advertised time for the opening of bids, then the opening of bids shall be extended at least seven

but no more than twenty-one (21) working days, without the requirement of re- advertising. Southeast Louisiana Flood Protection Authority - West shall be consulted prior to issuance of such an addendum and shall approve such issuance. The revised time and date for the opening of bids shall be stated in the addendum.

4.4.4 Each Bidder shall ascertain from the Southeast Louisiana Flood Protection Authority - West 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 Southeast Louisiana Flood Protection Authority - West.

ARTICLE 5

BID PROCEDURE

5.1 Form and Style of Bids

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

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

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

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

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

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

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

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

5.1.9 The bid shall include the legal name of Bidder and shall be signed by the person or persons legally authorized to bind the Bidder to a Contract.

The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable under any of the following conditions:
(a) Signature on bid is that of any corporate officer or member of a partnership or partnership in commendam listed on most current annual report on file with Secretary of State.
(b) Signature on bid is that of authorized representative of corporation, partnership, or other legal entity and bid is accompanied by corporate resolution, certification as to the corporate principal, or other documents indicating authority.
(c) Corporation, partnership, or other legal entity has filed in the records of the Secretary of State, an affidavit, resolution or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. A bid submitted by an agency shall have a current Power of Attorney attached certifying agent's authority to bind Bidder. The name and license number on the envelope shall be the same as the entity identified on the Bid Form.

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

5.2 Bid Security

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

The bid security shall be in the form of a certified check or cashier's check drawn on a bank insured by the Federal Deposit Insurance Corporation, or a Bid Bond written by a surety company licensed to do business in Louisiana and signed by the surety's agent or attorney-in-fact. The Bid Bond shall be written on the Southeast Louisiana Flood Protection Authority – West 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 Southeast Louisiana Flood Protection Authority - West, 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 Southeast Louisiana Flood Protection Authority - West 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 Southeast Louisiana Flood Protection Authority - West 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:

Southeast Louisiana
Flood Protection
Authority – West
7001 River Road
Marrero, LA 70072

Bids sent by express delivery shall be delivered to:

Southeast Louisiana
Flood Protection
Authority – West
7001 River Road
Marrero, LA 70072

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-5 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) each bidder on this project must submit the completed Attestations Affidavit (Past Criminal Convictions of Bidders, Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance) form found within this bid package. The Attestations Affidavit form shall be submitted to Southeast Louisiana Flood Protection Authority – West within 10 days after the opening of bids**.**

ARTICLE 8

PERFORMANCE AND PAYMENT BOND

8.1 Bond Required

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 Southeast Louisiana Flood Protection Authority - West.

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 Southeast Louisiana Flood Protection Authority - West, 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 CONTRACT BETWEEN OWNER AND CONTRACTOR

9.1 Form to be Used

a. Form of the Contract to be used shall be furnished by the Southeast Louisiana Flood Protection Authority - West, an example of which is bound in the Bid Documents.

9.2 Award

a. 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.

b. 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

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: Southeast Louisiana Flood Protection Authority - West
7001 River Road
Marrero, LA 70072

BID FOR: WBV 14e.2 Levee Lift Prior to Armoring

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by:
Southeast Louisiana Flood Protection Authority – West and dated: December 2016.

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

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

_____Dollars ($_____)

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

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

Not Applicable Dollars ($_____)

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

Not Applicable Dollars ($_____)

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

Not Applicable Dollars ($_____)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____

DATE: _____

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

** If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required,

may result in the rejection of the bid unless bidder has complied with La. R.S. 38:2212(A)(1)(c) or RS 38:2212(O).

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

LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM

TO: Southeast Louisiana Flood Protection Authority - West
7001 River Road
Marrero, LA 70072

BID FOR: WBV 14e.2 Levee Lift Prior to Armoring

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

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Mobilization and Demobilization			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
1	1	Lump Sum		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Clearing			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
2	30	Acre		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Embankment, Compacted Fill			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
3	111,500	Cubic Yard		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Granular Surfacing (Crushed Stone)			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
4	2,350	Cubic Yard		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Truck Wash Down Rack			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
5	1	Lump Sum		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Silt Fence			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
6	30,500	Linear Foot		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Construction Layout			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
7	1	Lump Sum		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Excavation of Stone Access Roads			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
8	2,350	Cubic Yard		

All quantities are estimated. The contractor will be paid upon actual quantities as verified by owner.

LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE FORM

TO: Southeast Louisiana Flood Protection Authority - West
7001 River Road
Marrero, LA 70072

BID FOR: WBV 14e.2 Levee Lift Prior to Armoring

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

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Seeding and Mulching			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
9	30	Acre		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Fertilizer			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
10	1,350	Pound		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Separator Geotextile			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
11	4,600	Square Yard		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Demolition of Concrete Slope Paving			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
12	1	Lump Sum		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Concrete Slope Paving Installation			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
13	544	Square Yard		

DESCRIPTION:	☒Base Bid or ❑ Alt.#___Lime Soil Amendment			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*
14	30	Ton		

DESCRIPTION:	❑Base Bid or ❑ Alt.#___			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*

DESCRIPTION:	❑Base Bid or ❑ Alt.#___			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION *(Quantity times Unit Price)*

All quantities are estimated. The contractor will be paid upon actual quantities as verified by owner.

BID BOND
FOR
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY - WEST PROJECTS

Date: _____

KNOW ALL MEN BY THESE PRESENTS:

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

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

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

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

_____

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

_____	_____
PRINCIPAL (BIDDER)	SURETY
BY:_____	BY:_____
AUTHORIZED OFFICER-OWNER-PARTNER OR ATTORNEY-IN-FACT (SEAL)	AGENT

WBV 14e.2 LEVEE LIFT PRIOR TO ARMORING **2017-277**
Name of Project **Project No.**

STATE OF LOUISIANA

PARISH OF JEFFERSON

ATTESTATIONS AFFIDAVIT

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

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

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

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

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

(a) Theft (R.S. 14:67)
(b) Identity Theft (R.S. 14:67.16)
(c) Theft of a business record of (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 payments (R.S. 14:202)
(i) Malfeasance in office (R.S. 14:134)

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

A. At the time of bidding, Appearer is registered and participates in a status verification system to verify that all new hires in the state of Louisiana are legal citizens of the United States or are legal aliens.

B. If awarded the Contract, Appearer shall continue, during the term of the Contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

C. If awarded the Contract, Appearer shall require all Subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

WBV 14e.2 LEVEE LIFT PRIOR TO ARMORING **2017-277**
Name of Project **Project No.**

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

A. R.S. 23:1726 prohibits any entity against whom an assessment under Part X of Chapter 11 of Title 23 of the Louisiana Revised Statutes of 1950 (Alternative Collection Procedures & Assessments) is in effect, and whose right to appeal that assessment is exhausted, from submitting a bid or proposal for or obtaining any Contract pursuant to Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950 and Chapters 16 and 17 of Title 39 of the Louisiana Revised Statutes of 1950.

B. By signing this bid /proposal, Affiant certifies that no such assessment is in effect against the bidding / proposing entity.

_____ _____

NAME OF BIDDER **NAME OF AUTHORIZED SIGNATORY OF BIDDER**

_____ _____

DATE **TITLE OF AUTHORIZED SIGNATORY OF BIDDER**

_____

SIGNATURE OF AUTHORIZED
SIGNATORY OF BIDDER/AFFIANT

Sworn to and subscribed before me by Affiant on the_____day of_____, 20_ .

_____
Notary Public

CONTRACT BETWEEN OWNER AND CONTRACTOR
AND PERFORMANCE AND PAYMENT BOND

This Contract entered into this _____ day of, _____ 20__ , by (CONTRACTOR NAME) hereinafter called the "Contractor", whose business address is _____, and the Southeast Louisiana Flood Protection Authority - West, herein represented by its Executive Director executing this Contract, and hereinafter called the "Owner".

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

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

WBV 14e.2 Levee Lift Prior to Armoring
Project No. 2017-277

in strict accordance with Contract Documents prepared by Owner.

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

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

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

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

Performance and Payment Bond:

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

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

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

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

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

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

WITNESSES:

_____

_____

_____

_____

_____

_____

SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY - WEST

BY: _____
John R. Monzon, P.E., Regional Director

BY: _____

SURETY: _____

BY: _____
ATTORNEY IN FACT

_____

_____
ADDRESS

_____
TELEPHONE NUMBER

STATE OF LOUISIANA
PARISH OF JEFFERSON

PROJECT NO. 2017-277
NAME: WBV 14e.2 Levee Lift Prior To Armoring
LOCATION: Jefferson Parish, Louisiana

A F F I D A V I T

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

PART I.

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

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

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

PART II.

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

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

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

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

_____
AFFIANT

SWORN TO AND SUBSCRIBED BEFORE ME THIS_____DAY OF _____, 20__.

_____
NOTARY

BIDDING SCHEDULE
Levee Lift Prior to Armoring For WBV 14e.2
Southeast Louisiana Flood Protection Authority - West
Jefferson Parish, Louisiana

Item	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
001	Mobilization and Demobilization	1	LS		
002	Clearing	30	AC		
003	Embankment, Compacted Fill	111,500	CY		
004	Granular Surfacing (Crushed Stone)	2,350	CY		
005	Wash Down Rack	1	LS		
006	Silt Fence	30,500	LF		
007	Construction Layout	1	LS		
008	Excavation of Stone Access Roads	2,350	CY		
009	Seeding and Mulching	30	AC		
010	Fertilizer	1,350	LB		
011	Separator Geotextile Fabric	4,600	SY		
012	Demolition of Concrete Slope Paving	1	LS		
013	Concrete Slope Paving	556	SY		
014	Lime Soil Amendment	30	TON		
				TOTAL	

PART I GENERAL PROVISIONS

GP-1 DEFINITION OF TERMS

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

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

a. Acceptance: A written approval from the Authority Representative which certifies that specific items of work in the Contract have been completed and/or obligations have been fulfilled by the Contractor.

b. Addenda: Those written or graphic documents which are issued prior to opening of Bids in accordance with the Bidding Requirements and clarify or change the bidding requirements or the proposed Contract Documents.

c. Application of Payment: That form which is used by the Contractor to request partial and final payment and is deemed acceptable to the Owner. It shall be accompanied by any supporting documentation required by the Contract Documents.

d. Authority: The Southeast Louisiana Flood Protection Authority – West (SLFPA-W)

e. Authority Representative: On site representative for the Southeast Louisiana Flood Protection Authority – West (SLFPA-W).

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

g. Bid: An offer or proposal submitted on the prescribed form setting forth the prices for the Work.

h. Bidder: The person, association of persons, firm, or corporation submitting a proposal for the Work.

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

j. Change Order: A written order which is submitted to the Contractor, signed by the Owner, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the contract price or the contract time issued after the effective date of the Contract.

k. Claim: A written demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both or other relief with respect to the terms of the Contract.

l. Contract: The written agreement between the Owner and the Contractor which defines

the work to be completed and shall be understood to include all Contract Documents.

m. Contract Documents: The Contract, all addenda which pertains to the Contract Documents, Bid Documents and specified Attachments accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award, Contractor's Bid when attached as an exhibit to the Agreement, the Bonds (Bid and Performance/Payment), General Provisions, Special Provisions, Technical Specifications, Plans, and all Field or Change Orders issued after the execution of the Agreement. Shop Drawings and other submittals by the Contractor are not Contract Documents.

n. Contract Price: The moneys payable by the Owner to the Contractor for the Work in accordance with the Contract Documents as stated in the Contract.

o. Contract Time: The number of calendar days specified in the Contract for completion of the Work, together with any extensions authorized through change orders.

p. Contractor: The person, association of persons, firm, or corporation entering into the duly awarded Contract.

q. Contracting Agency: The Southeast Louisiana Flood Protection Authority – West (SLFPA-W).

r. Day: When any period of time is referred to in the Contract Documents using days, it will be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday, Sunday, or a legal holiday, that day will be omitted from the computation. A calendar day is measured as twenty-four (24) hour period starting at midnight and ending the following midnight.

s. Design Report: A written report by the Engineer which provides the design methodology for the Work.

t. Effective Date of the Contract: The date indicated in the Contract on which it becomes effective.

u. Engineer: The Southeast Louisiana Flood Protection Authority - West, or its designee.

v. Equipment: All machinery, implements, and power-tools, in conjunction with the necessary supplies for the operation, upkeep, maintenance, and all other tools and apparatuses necessary for the proper construction and acceptable completion of the Work.

w. Extension of Contract: Any extension of time for completion of Work beyond the Contract Time which is granted by the Owner, recommended by the Engineer and approved by the Coastal Protection and Restoration Authority in the form of a Change Order.

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

y. Field Order: A written order issued by the Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or Contract Time.

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

aa. Laws and Regulations; Laws or Regulations: Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

bb. Materials: Any substance used in the Work to build structures, but does not include material used in false work or other temporary structures not incorporated in the Work.

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

dd. Notice of Award: A written notice to the successful Bidder stating that the Bid has been accepted by the Owner and that the successful Bidder is required to execute the Contract and furnish the Payment and Performance Bond and Non-Collusion Affidavit.

ee. Notice to Proceed: The written notice to the Contractor by the Owner which provides the starting date for the Contract Time.

ff. Owner: The Owner is the Southeast Louisiana Flood Protection Authority – West (SLFPA-W) which acts through the Contacting Agency.

gg. Performance and Payment Bond: The approved form of security furnished by the Contractor and Surety for the faithful performance of the Work, and the payment for all labor, materials, and/or obligations incurred by the Contractor in the prosecution thereof.

hh. Plans: That part of the Contract Documents prepared or approved by the Engineer which graphically shows the scope, intent, and character of the Work to be completed by the Contractor.

ii. Project Site: The location where the Work is to be performed as stated in the Contract Documents.

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

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

ll. Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portions of the Work will be judged.

mm. Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work to be performed.

nn. Specifications: That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the work to be performed and certain administrative details applicable thereto.

oo. State: Louisiana.

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

qq. Subcontractor: Any person, association of persons, firm, or corporation who contracts with the Contractor to perform any part of the project covered by the Contract.

rr. Submittals: Certificates, samples, shop drawings, and all other project data which are submitted to the Engineer in order to verify that the correct products will be installed on the project.

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

tt. Special Provisions: That part of the Contract Documents which amends or supplements these General Provisions.

uu. Surety: The corporate body, licensed to do business in Louisiana, bound with and for the Contractor's primary liability, and engages to be responsible for payment of all obligations pertaining to acceptable performance of the Work contracted.

vv. Temporary Structures: Any non-permanent structure required while engaged in the prosecution of the Contract.

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

xx. Work Plan: A written plan by the Contractor that details how the Work will be provided including layout drawings, projected schedule (Initial Progress Schedule), and a list of labor hours, materials, and equipment.

GP-2 BID REQUIREMENTS

The Contract and Bonds which govern the Work shall be performed in accordance with the Plans and Specifications, Items not covered in the provided plans and specifications shall be performed in accordance with the Louisiana Standard Specifications for Roads and Bridges, 2016 edition. The Bidder understands that all quantities for performing the Work have been estimated by the Engineer, and that the Bid shall be the sum of the quantities multiplied by their respective unit rates. The Contract shall be awarded by the Owner through a comparison of all bids. It is the responsibility of each Bidder before submitting a Bid to:

2.1. Examine the Bidding Documents including the Plans and Specifications and any Addenda or related data identified in the Bidding Documents;

2.2. Visit the Project Site to become familiar with the local conditions if they are believed to affect cost, progress, or the completion of the Work;

2.3. Become familiar and satisfied with all federal, state, and local Laws and Regulations that may affect cost, progress, or the completion of the Work;

2.4. Study and correlate all information known to the Bidder including observations obtained from Bidder's visits, if any, to the Project Site, with the Bidding Documents;

2.5. Submit a written notice to the Engineer within three (3) days regarding any conflicts, errors, ambiguities, or discrepancies discovered in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidder; and

2.6. Determine that the Bidding Documents are generally sufficient to convey an understanding of all terms and conditions for completing the required Work.

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

GP-3 AVAILABILITY OF PLANS AND SPECIFICATIONS

One (1) set of Plans and Specifications shall be furnished to each Bidder. Three (3) sets of the Plans and Specifications shall be furnished to the Contractor upon award of the Contract. Additional sets may be furnished to the Contractor upon request from the Southeast Louisiana Flood Protection Authority – West, 7001 River Road, Marrero, LA 70072.

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 SLFPA-W 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 (7) 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 Special Provisions.

GP-8 WORK PLAN

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

a. Typical report form for the Bi-Weekly Progress Meeting;

b. Typical form for Daily Progress Report;

c. Hurricane and Severe Storm Plan;

d. Site-specific Health and Safety Plan;

e. The delivery method and source(s) of all construction materials (company or producer name, mailing and physical address, phone number, and name of contact person).

f. The personnel, material, subcontractors, fabricators, suppliers, types of equipment, and equipment staging areas the Contractor proposes to use for construction;

g. Shop drawings, test results, and sample submittals;

h. Survey layout and stakeout;

i. All supplemental items specified in the Special Provisions.

The Work Plan shall be submitted to the Engineer prior to the Pre-Construction Conference by the date provided in the Special Provisions. The Engineer shall review the Work Plan and have the Contractor make any necessary revisions prior to acceptance of the plan.

GP-9 PROGRESS SCHEDULE

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

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

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

c. A telephone log verifying that all property owners and utilities have been contacted. This log should list the time, date, and names of the personnel representing the property owners, utilities, and Contractor;

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

Monthly Anticipated Adverse Weather Calendar Days											
Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
13	8	9	5	6	9	9	8	7	3	6	11

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 necessary 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. Weather conditions (adverse weather day, wind speed and direction, temperature, wave height, precipitation, etc.);

h. The amount of time lost to severe weather or personnel injury, etc;

i. Notes regarding compliance with the Progress Schedule;

j. Visitor log including Name, organization affiliation, contact number and email.

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 EMERGENCY GAP CLOSURE PLAN & HURRICANE AND SEVERE STORM PLAN

11.1 Emergency Gap Closure Plan

Hurricane season extends from 1 June to 30 November. During this period the Contractor may be directed to close gaps in the flood protection caused by his construction operations. The Contractor shall submit an Emergency Gap Closure Plan to the Southeast Louisiana Flood Protection Authority - West, for review and approval prior to removal of any of the existing flood protection. The plan will be put into effect at any time during construction when a named storm enters the Gulf of Mexico, or at the direction of the Southeast Louisiana Flood Protection Authority - West. The plan shall take into account deteriorating weather conditions that may occur before a storm event, which may make earthen material unsuitable for closure. The plan shall clearly demonstrate and/or include the following:

a. The Contractor shall note that he is required as part of this project to maintain the flood protection to the elevations shown on the drawings and shall be allowed a maximum of 24 hours to reconnect and replace any flood protection as specified herein and as affected by his operations. At no time shall the Contractor be allowed to open the flood protection sheet pile or degrade the existing levee where the canal water elevation is within 2’ of the protected side ground elevation or during eminent conditions where the canal waters possibly be allowed to flow from the canal side of the flood protection to the protected side. In the event of an impending hurricane or tropical storm the Contractor shall complete a closure of all breaches in the flood protection within 24 hours after being directed to do so by the Southeast Louisiana Flood Protection Authority - West.

b. It shall be mandatory that the Contractor maintain materials, including earthen materials, and equipment on site to provide immediate closure of all areas during inclement weather conditions, an impending and approaching hurricane, or as directed by the Southeast Louisiana Flood Protection Authority - West. The Contractor shall note the type of equipment and materials on site and all details of his emergency procedures and sequence for providing closure. Closure during emergency situations shall require the Contractor to immediately repair, construct and /or replace all areas for complete closure and flood protection.

c. After the passing of a storm or as directed by the Southeast Louisiana Flood Protection Authority - West, the Contractor shall remove all temporary closures, and repair or replace any permanent construction damaged by its installation.

11.2 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 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. The time each phase of the plan will be put in effect. The time shall be the number of hours remaining for the storm to reach the worksite if it continues at the predicted speed and direction.

d. The estimated time necessary to secure and evacuate the site including any emergency flood protection.

e. Methods which will be used to secure equipment left onsite during adverse weather conditions.

f. Evacuation or immediate reaction plans to be taken by personnel for sudden storm occurrences.

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

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

GP-12 HEALTH AND SAFETY PLAN AND INSPECTIONS

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

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

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

GP-13 PROGRESS MEETINGS AND REPORTS

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

GP-14 PRE-CONSTRUCTION CONFERENCE

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

GP-15 CONTRACT INTENT

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

GP-16 ENGINEER AND AUTHORITY OF ENGINEER

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

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

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

GP-17 CONFORMITY WITH PLANS AND SPECIFICATIONS

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

GP-18 CLARIFICATIONS AND AMENDMENTS TO CONTRACT DOCUMENTS

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

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

a. Any conflict, error, ambiguity, or discrepancy within the Contract Documents; or

b. Any conflict, error, ambiguity, or discrepancy between the Bid Documents and the provision of any Law or Regulation applicable to the performance of the Bid; or

c. Any standard, specification, manual, or code (whether or not specifically incorporated by reference in the Bid Documents); or

d. Instructions by a supplier.

The written clarification shall be filled out appropriately by the Contractor and submitted to the Engineer. The Engineer shall clarify the issue in writing on either the 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 care, custody, control, or sufficient property interests therein for construction and operation, maintenance, repair, rehabilitation, and replacement of this alteration.

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

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

GP-29 DUTIES OF RESIDENT PROJECT REPRESENTATIVE

A Resident Project Representative 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.

When any item having apparent historical or archeological interest is discovered in the course of any construction activities, then no work will proceed in the area containing these cultural resources until a CEMVN archaeologist has been notified and final coordination with the State Historic Preservation Officer and any federally-recognized Tribes has been completed. The Contractor will leave the archeological find undisturbed and shall immediately report the find to the Authority so that the proper authorities may be notified.

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

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

GP-39 RECORD KEEPING

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

GP-40 CERTIFICATES OF COMPLIANCE

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

GP-41 SUBMITTALS

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

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

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

The Contractor shall maintain a submittal register for the project in accordance with the specifications. The submittal register shall show items or equipment and materials for which submittals are required by the specifications; this submittal register may not be all inclusive and additional submittals may be required. The Authority will provide the initial submittal register in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Authority will be included in its export file to the Contractor. The Contractor shall track all 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 shall 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 where the work is performed and shall forward one 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.

a. 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.

b. 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 material men 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 material men and laborers who have filed their claims, together with a sum sufficient to defray the cost of such action and to pay attorneys' fees, shall

be paid to the Contractor.

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

GP-60 PAYMENTS WITHHELD

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

a. Defective work not remedied;

b. Claims filed or reasonable evidence indicating probable filing of claims;

c. Failure of the Contractor to make payments properly to subcontractors or for material or labor;

d. Reasonable evidence that the Work will not be completed within the Contract time and that the unpaid balance would not be adequate to cover damages for the anticipated delay;

e. A reasonable doubt that the contract can be completed within the time period remaining under the contract;

f. Damage to another contractor;

g. Failure to submit required reports; or

h. Modifications of the contract which necessitate the execution of change orders prior to payment of funds.

Furthermore, nothing contained in this Section shall be deemed to limit the right of the Owner to withhold liquidated damages, as stated in the Instructions to Bidders and as permitted under Section SP-7 of the Special Provisions, from any amounts which may be due and owing the Contractor for work performed under the contract.

GP-61 LIENS

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

GP-62 EQUAL EMPLOYMENT OPPORTUNITY

The SLFPA-W 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:

1. The number and types of jobs anticipated for the Work.

2. The skill level of the jobs anticipated for the Work.

3. The wage or salary range for each job anticipated for the Work.

4. Methods, if any, that the Contractor will use to recruit unemployed persons or person employed in low wage jobs to fill job openings for the Work.

END OF PART I - GENERAL PROVISIONS

PART II SPECIAL PROVISIONS

SP-1 LOCATION OF WORK

The Work to be performed is located in Estelle, Louisiana, in Jefferson Parish between LA Hwy 3134 (Lafitte-Larose Hwy) and the Estelle Pump Station.

The Project Site is accessible via LA 3134 between Barataria Blvd and Destrehan Ave. A vicinity map and project map have been included in the Plans.

SP-2 WORK TO BE DONE

The Work to be performed under these Plans and Specifications consists of furnishing all plants, equipment, labor and materials for performing all Work required for raising the levee crown elevations of the existing levee section, within the limits provided in the Plans, at the Project Site (WBV 14e.2) including mobilization, demobilization, and other related work.

Under the Bid of this Contract, the Contractor shall perform a levee lift of approximately 2.9 miles of existing levee, staying within the limits provided in the Plans at the site referred to as WBV 14e.2 by SLFPA-W and in the HSDRRS System previously permitted by USACE. The crown elevation will vary from 14.5' to 14.0' for the levee section. The Contractor shall also install concrete slope paving at the Estelle Pump Station T-Wall tie in falling under the proposed levee section limits. Turf establishment shall also be required on the approximately 30-acre area, once construction is complete. The existing vegetation and associated organic material will be cleared and grubbed. There will be gravel roads installed from the existing highway to the project staging area as access to the site. The access roads will be removed and the levee berm will be restored to its original condition prior to completion.

All debris, trash or other incidentals used by the Contractor shall be removed from the Project Site and properly disposed of prior to Final Acceptance and demobilization.

Payment for the access road from LA 3134 to the construction staging area shall include the quantity required to construct the road as specified for Granular Surfacing. All other items required to construct the access road shall be at no direct payment and included in the cost for Granular Surfacing.

Payment for the construction of the temporary access roads and construction staging area shall include excavation, the separator geotextile and the granular surfacing required to construct the temporary access roads and construction staging area. All other items required to construct the temporary access roads and the construction staging area shall be at no direct payment and included in the cost for the items associated with this construction.

There shall be no direct payment for construction of the haul route. The only payment associated with this effort is for Embankment, to restore the area to the pre-construction condition.

SP-3 BID ITEMS, CONTRACT DATES, AND DELIVERABLES

Milestone	Location or Recipient	Date Due	Specification
Advertisement For Bids	SLFPA-W	As advertised	N/A
Mandatory Pre-Bid Conference	Provided in Advertisement for Bids	As advertised	Advertisement for Bids
Questions on Bid Documents	bidquestions@slfpaw.org	As Announced at Pre-Bid Conference	GP-5, SP-5
Effective Date of Contract	Contractor and Owner	Stated in Contract	Contract
Start of Contract Time	Contractor and Owner	As stated in Notice to Proceed	GP-7
List of Subcontractors	Submit to Engineer	Prior to awarding subcontracts	GP-19
Work Plan	Submit to Engineer	At least 14 days prior to Pre-Construction Conference	GP-8
Progress Schedule	Submit to Engineer	At least 14 days prior to starting construction, bi-weekly thereafter	GP-9
Pre-Construction Conference	Contractor and Engineer	As determined by the Engineer after Notice to Proceed is issued	GP-14
Progress Meetings and Reports	At Project Site	Bi-weekly or as determined at the Pre-Construction Conference	GP-13, GP-39
Delivery Slips	Submit to Engineer or Resident Project Representative	Upon arrival to Project Site	SP-4
Final Inspection and Acceptance	Submit to Engineer	Upon completion of Work	GP-54
Written Notice of Completion of Work	Deliver to Engineer	Upon completion of Work	GP-53
As-Built Drawings	Deliver to Engineer	Prior to Final Inspection as scheduled by the Engineer	GP-55
End of Contract Time	At Project Site	90 calendar days after Notice to Proceed	Instructions to bidders

SP-4 DELIVERABLES

4.1 Prior to Construction

4.1.1 The Contractor shall submit the following documents to the Engineer prior to the Pre- Construction Conference specified in GP-14:

4.1.1.1 Work Plan as specified in GP-8;

4.1.1.2 Progress Schedule as specified in GP-9;

4.1.1.3 Copy of typical Daily Progress Report as specified in GP-10.

4.1.1.4 Hurricane and Severe Storm Plan as specified in GP-11;

4.1.1.5 Health and Safety Plan as specified in GP-12.

4.1.2 The Contractor shall provide the following information to the Engineer at the Pre-Construction Conference specified in GP-14:

4.1.2.1 The anticipated mobilization date;

4.1.2.2 The anticipated dates that contract work shall be commenced and completed;

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

4.1.2.4 The estimated duration of excavation and earthwork operations;

4.2 Weekly Submittals

4.2.1 The Contractor shall keep a daily record of work progress, means and methods of construction, any Field or Change Orders, compliance with the approved Work Schedule, weather conditions (wind speed and direction, temperature, sky conditions, and precipitation), and non-working days which shall be included with the weekly reports of progress. The daily reports shall be submitted to the Engineer at the weekly progress meeting, unless otherwise instructed by the Engineer;

4.2.2 If the Contractor fails to comply with any of the stipulations as stated in GP-8, the Engineer shall consider the Contractor negligent in his duties and reserves the right to issue a Stop Work Order until all stipulations are complied with at the Contractor's expense.

4.3 Final Inspection

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

4.3.1 Copies of delivery slips, indicating the source of materials, date delivered, and exact quantity delivered;

4.3.3 Copy of the Contract Documents at the site in proper order and marked to show all Field and Change Orders made by the Owner;

4.3.4 As-built drawings.

SP-5 CONTACT INFORMATION

Prior to Bid opening date, the Contractor shall send all questions and requests for clarification or interpretation of the Bid Documents in writing to the attention of Jesse Noel of the Southeast Louisiana Flood Protection Authority – West. The address and contact information is as follows:

Southeast Louisiana Flood Protection Authority – West (SLFPA-W)
7001 River Road
Marrero, LA 70072
Attn: Jesse Noel
Phone: 504-371-6847
Email: jnoel@slfpaw.org

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

SLFPA-W Project Engineer
Jesse Noel
Marrero, LA 70072
Phone: 504-371-6847
Email: jnoel@slfpaw.org

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

SP-6 LANDOWNER REQUIREMENTS

The work to be performed under this contract shall be performed within the existing Southeast Louisiana Flood Protection Authority - West right-of-way. No other agreements shall be required for construction of the Project.

SP-7 FAILURE TO COMPLETE ON TIME

For each day the Work remains incomplete beyond the Contract Time, as specified in SP-3, or Extension of Contract Time, as specified in GP-44, the sum of one-thousand, five hundred dollars ($1,500) per calendar day will be deducted from any money due to the Contractor as liquidated damages. The Contractor and Surety shall be liable for any liquidated damages that are in excess of the amount due the Contractor.

SP-8 COMMENCEMENT, EXECUTION AND COMPLETION

The Contractor shall be required to begin work under the Contract within thirty (30) calendar days after receipt of the Notice to Proceed from the Owner. Work shall be conducted in such a manner and with sufficient materials, equipment and labor as is considered necessary to insure its completion within the time limit specified.

SP-9 TIME EXTENTIONS FOR UNUSUALLY SEVERE WEATHER

This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with GP-9 and GP-44. In order for the Owner to award a time extension under this clause, the following conditions must be satisfied:

9.1 The weather experienced at the Project Site during the Contract Time must be found to be unusually severe; that is, more severe than the adverse weather anticipation for the Project Site during any given month as listed in GP-9;

9.2 The unusually severe weather must actually cause a delay to the completion of the Project. The delay must be beyond the control and without the fault or negligence of the Contractor. Throughout the Contract, the Contractor will record on the Daily Progress Report, the actual occurrence of adverse weather and resultant impact to normal scheduled work. Actual adverse weather delay days must prevent work on critical activities for fifty percent (50%) or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month) be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of anticipated days, the Engineer may grant an extension of Contract Time, giving full consideration for equivalent fair weather work days, in accordance with GP-44.

SP-10 SITE ACCESS

The Project Site is accessible via LA 3134 between Barataria Blvd and Destrehan Ave. A vicinity map and project map have been included in the Plans.

The Contractor shall visit the Project Site and determine the best unloading and staging locations. Transportation from the unloading and staging locations to the work areas may be limited to specific access corridors approved and marked by the Engineer and the Contractor during the layout. The Contractor shall verify the types of equipment necessary for accessing the site and completing the Work as specified.

The Contractor shall abide by all rules, regulations, traffic regulations, site restrictions and any other rules and stipulations and shall be responsible for any damage or repairs to access routes, roads, and staging areas and all private facilities and properties as outlined in GP-22 and GP-51.

The Project Site access routes, rights of way, road, and staging areas shall be kept free from accumulation of debris, trash or other incidentals and shall be clean prior to Final Acceptance and Inspection by the Engineer and demobilization.

SP-11 INSURANCE AND BONDS

11.1 Minimum Scope and Limits of Insurance

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.

11.1.1 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.

11.1.2 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**

11.1.3 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.

11.1.4 Excess Umbrella

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

11.1.5 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.

11.1.6 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.

11.2 Other Insurance Provisions

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

11.2.1.1 Worker's Compensation and Employers Liability Coverage

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

11.2.1.2 General Liability Coverage

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

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

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

11.2.1.3 All Coverages

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

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

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

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

11.2.2 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.

11.2.3 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:

Southeast Louisiana Flood Protection Authority – West (SLFPA-W)
7001 River Road
Marrero, LA 70072
Attn: Project # _____

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

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

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

11.2.4 Subcontractors

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

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

11.2.5 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.

11.2.6 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.

11.3 Performance and Payment Bond

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

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

SP-12 ABANDONMENT OR REMOVAL OF EXISTING FACILITIES

All existing facilities to be removed or abandoned within the project limits shall be in accordance with Louisiana Department of Environmental Quality (LDEQ), Louisiana Department of Transportation and Development (LaDOTD), & Louisiana Department of Natural Resources (LDNR) requirements. The Contractor shall field verify the location, type of facility, and quantity of facility to be removed or abandoned and dispose of them as required. Any facilities that are to be returned to the facility owner shall be coordinated between the facility owner and the Contractor.

No separate measurement and payment will be made for abandonment or removal of existing facilities. All costs associated therewith shall be included in the applicable unit price for "Clearing".

SP-13 FLOOD SIDE 404C WETLANDS BOUNDARY

Establishment of Boundaries - Prior to the Contractor's layout of levee, the Contractor shall install a temporary silt fence in accordance with Section 01 57 23.00 12, along the existing levee to define the flood side 404c wetland boundary. In addition to the silt fence for erosion control, the Contractor shall fasten an orange colored meshed fence to the silt fencing, facing the existing levee. The Contractor shall begin to install the both fences not later than 14-days after receipt of the Notice to Proceed. The fence location shall be installed in accordance with the x-y coordinate tabulation at the end of Section 01 57 23.00 12. All work for installation of the fences shall be conducted from the existing levee flood side berm. Upon completion of all levee work, the fences shall be removed. There shall be no deviation in the location denoted on the tabulation, unless otherwise directed or approved by the Authority.

Environmental Responsibility - It is imperative that the Contractor's operation does not cross the alignment into the 404c Wetland Area, while staking out the alignment. This is an environmentally sensitive area and the Contractor's operation shall eliminate any violation of the boundary. The Contractor shall be responsible for maintaining the fences integrity and will be responsible for any damage to the wetland areas caused by its operation until completion of contract. The Contractor shall be required to train all contract and subcontract employees in environmental awareness related to working adjacent to the Bayou aux Carpes 404c site. The Southeast Louisiana Flood Protection Authority - West will provide the training materials. Employees shall be trained prior to working on site. Training will be documented on a sign in sheet that will be forwarded weekly to and retained by the Government Inspector. The Contractor shall be required to supply 404c hard hat stickers which will be provided as

recognition that training has been completed. The Contractor will be held responsible for all expenses, at no cost to the Government, with regard to accidental damages to the wetland area. The cost shall be deducted from any amounts due or to become due to the Contractor. If damages occur the Contractor must notify the Authority Representative within 12-hours of the damage occurring.

Measurement and Payment - Measurement and payment for the installation of the fence boundary will be in accordance with Section 01 57 23.00 12.

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SECTION 01000

MOBILIZATION AND DEMOBILIZATION

PART 1 GENERAL

1.1 SCOPE

Mobilization consists of preparatory work and operations, including those necessary for movement of personnel, equipment, supplies and incidentals to the Project Site; the establishment of offices, buildings and other facilities necessary for Work on the project; the cost of bonds and any required insurance; and other preconstruction expenses necessary for start of the Work, excluding the cost of construction materials. Such costs include, but are not limited to, the following:

1. Fuel, lubrication, maintenance, and repair of equipment;

2. Temporary construction facilities;

3. Movement of all equipment and material to and from the project sites.

4. Maintenance of the haul route.

5. Redevelopment of haul route to preconstruction section upon project completion.

1.2 MEASUREMENT AND PAYMENT

All costs connected with mobilization and demobilization of the entire Contractor's plant, equipment, personnel, and those of his Subcontractors and other such costs as may be denoted in the Contract Documents for the project area shall be paid at the lump sum price for "MOBILIZATION AND DEMOBILIZATION" in the Bid Schedule.

(1) Sixty percent (60%) of the lump sum price upon completion of the Contractor's mobilization at the work site.

(2) The remaining forty percent (40%) upon completion of demobilization.

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SECTION 01100

CONSTRUCTION LAYOUT

PART 1 GENERAL

1.1 SCOPE

The work provided for herein consists of furnishing all plant, labor, equipment, and materials, and performing all operations necessary for construction layout and video and photographic documents as specified herein and as indicated on the contract drawings.

1.2 MEASUREMENT AND PAYMENT

No measurement will be made for work covered under this section. Payment will be made at the contract lump sum price for "Construction Layout".

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The Contractor shall establish all lines and grades and stake out all work on this project, including sufficient vertical and horizontal points for utility relocations for use by the Department and others. Surveys shall be in accordance with "USACE New Orleans District Guide for Minimum Survey Standards". This document can be found at the following location: http://www.mvn.usace.army.mil/ed/edss/USACE_MVN_Min_Survey_Standards.PDF.

1. The project survey control and horizontal alignment are based on the Louisiana State Plane Coordinate System of 1983, South Zone, as determined by GPS observation. The construction plans and/or right-of-way map depicts the coordinates of sufficient survey control points to establish or re-establish horizontal control throughout the length of the project. The Contractor shall employ such methods as approved by the Authority for the location of the project alignment and other necessary survey control points in accordance with currently acceptable surveying standards and practices. When required, the Authority will also provide one bench mark on or near the project for vertical control. The Contractor shall verify the values of any intermediate bench marks shown on the plans, by checking against the bench mark established for vertical control.

2. The Contractor shall employ qualified engineering and surveying personnel experienced in layout and construction to correctly establish and keep complete and comprehensive notebook records (field books) of all lines and grades necessary from initial layout to final acceptance.

3. The Contractor shall be liable for the accuracy of the initial layout and all subsequent alignment and elevations and shall, at no additional pay, rebuild, repair or make good any portion of the work found to be

incorrectly positioned either horizontally or vertically at any time before final acceptance. The Contractor shall notify the Authority immediately of any apparent errors in the plans. The Contractor shall compute and provide template grades to the Authority.

3.2 VIDEO AND PHOTOGRAPHIC DOCUMENTATION

The pre-construction and post-construction conditions of permanent roads, streets, driveways, sidewalks, above-ground utilities, existing ground and existing structures shall be verified and documented by the use of Contractor-furnished photographs and video. Video shall be digital format or digital format (DVD) with voice over commentary describing all pertinent or unusual conditions. Video shall have a stamped date. Photographs shall be 35 mm or digital, color, and 4 inch x 6 inch size minimum, and shall have stamped date. The Contractor shall provide two (2) copies of the DVD and two (2) copies of photos with negatives or CDs containing files to the Authority for the Contract file. Electronic photos shall be accompanied by a log describing the content of each photo. Two (2) hard copies shall be assembled in a report form with a cover letter attached. In the report, a description of each picture identifying and describing the location and indicating the date of the photograph shall be typed beneath each picture. On the reverse of each photograph, the Contractor shall affix a self-adhesive label on the reverse of each picture that shall identify the location, describe the photographed object and indicate the date of the photograph and name of the person who documents the information. All the information on the label shall be typewritten in black. Additionally, the name shall also be signed. The Contractor shall coordinate so that representatives of the Authority are present during the pre- and post-construction documentation.

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ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution and the handling, removal, transportation and disposal of any hazardous and/or regulated solid waste generated during and as the result of construction operations under this contract except for those measures set forth in other provisions of these specifications. For the purpose of this specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to man; or degrade the utility of the environment for esthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise, solid waste-management, management of radiant energy and radioactive materials, as well as other pollutants including hazardous wastes, materials, substances and chemicals.

1.2 APPLICABLE REGULATIONS

In order to prevent, and to provide for abatement and control of any environmental pollution arising from construction activities in the performance of this contract, the Contractor and his subcontractors shall comply with the Louisiana Pollution Discharge Elimination System (LPDES) General Permit requirements and all applicable Federal, State, and Local laws, and regulations. For hazardous wastes, materials, substances and chemicals applicable regulations shall include, but are not limited to, 29 CFR 1910.106, 29 CFR 1910.120, 40 CFR 260, 40 CFR 279, 40 CFR 355, 40 CFR 372-SUBPART D, 49 CFR 171 – 178, LAC 33:V, and LAC 33:VII.

1.3 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

LOUISIANA ADMINISTRATIVE CODE (LAC)

LAC 33:V	Environmental Quality: Hazardous Waste and Hazardous Materials
LAC 33:VII	Environmental Quality: Solid Waste

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.106	Flammable and Combustible Liquids
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
33 CFR 153.203	Procedure for the Notice of Discharge
40 CFR 260	Hazardous Waste Management System: General
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 268	Land Disposal Restrictions
40 CFR 279	Standards for the Management of Used Oil
40 CFR 355	Emergency Planning and Notification
40 CFR 372-SUBPART D	Specific Toxic Chemical Listings
49 CFR 171	General Information, Regulations, and Definitions
49 CFR 171 - 178	Hazardous Materials Regulations

1.4 MEASUREMENT AND PAYMENT

1.4.1 Environmental Protection

No separate measurement or payment will be made for environment protection, including protection of fish and wildlife. Payment for the work covered under this section shall be distributed throughout the existing bid items.

1.4.2 Non-Regulated Waste

No separate measurement or payment will be made for the work associated with and the disposal of non-regulated debris not specifically covered elsewhere. Payment for the work associated with the disposal of non-regulated debris not specifically covered elsewhere shall be distributed throughout the existing bid items.

1.4.3 Hazardous/Regulated Waste

a) If the Contractor generates hazardous and/or regulated solid wastes through his/her actions, no separate measurement or payment will be made for handling, removal, transportation and disposal of hazardous and/or regulated solid wastes. Payment for the work associated with and the disposal of hazardous/regulated solid waste generated by the Contractor shall be distributed throughout the existing bid items.

b) If the Contractor uncovers an existing hazardous/regulated waste not Contractor generated, not shown on the drawings, and not specified herein, the Contractor shall notify the Authority Representative immediately. Payment for handling, removal, transportation and disposal of hazardous and/or regulated solid wastes not Contractor generated, not shown on the drawings, and not specified herein will be made as an equitable adjustment in contract price under the General Provision GP-42 "CLAIMS FOR EXTRA COST".

1.5 SUBMITTALS

Prior to construction, the Contractor shall submit in writing to the Authority a proposed plan to comply with the requirements of this section and General Provision GP-41 "SUBMITTALS".

1.6 QUALITY CONTROL

1.6.1 General

The Contractor shall establish and maintain quality control for environment protection to assure compliance with contract specifications and maintain records of his/her quality control for all construction operations including but not limited to the following:

1) Submit plan of Environmental Pollution Control Plan/Environmental Protection Plan. For Contractor work activities (such as painting, metal finishing, etc.) that will involve bringing hazardous chemicals, hazardous substances or hazardous materials onto the project site, include in the plan a Hazard Communication Program and Safe Storage Plan. For Contractor activities that anticipate generation of hazardous wastes at the project site, include in the plan a waste identification / determination and waste disposal plan. For Contractor on-site activities that pose a risk of an oil or hazardous substance spill, include in the plan a Spill Reporting and Response Plan.

2) Procure applicable Federal, State, and Local regulations on pollution control.

3) Air Pollution - Checks made on dust, smoke, and noise.

4) Water Pollution - Checks made on disposal of water, oil, etc.

5) Land Pollution - Checks made on disposal of debris, restoration of temporary construction sites, etc.

6) Training Course for Employees.

1.6.2 Reporting

The original and two copies of these records, as well as the records of corrective action taken, shall be furnished the Authority Representative daily.

1.7 NOTIFICATION

The Authority will notify the Contractor in writing of any non-compliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his/her authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Authority may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall make no part of the time lost due to any such stop orders the subject of a claim for extension of time or for excess cost of damages.

1.8 SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor.

1.9 IMPLEMENTATION

Within 10 days after receipt of Notice of Award, or otherwise directed below, the Contractor shall:

1) Submit in writing his/her proposals for implementing environmental pollution control at the project site, disposal of debris, non-hazardous wastes and hazardous wastes generated at the project site as well as storage and management of regulated materials, substances and chemicals brought onto and used at the project site.

2) Meet with representatives of the Authority to develop mutual understanding relative to compliance with this provision and administration of the environmental pollution control program.

3) If applicable, submit a plan for the identification, handling, removal, transportation and disposal of hazardous and/or regulated solid wastes generated because of the Contractor's operation.

1.9.1 Environmental Assessment of Contract Deviations

If the Contractor proposes a deviation from the drawings or specifications (e.g., proposed borrow, disposal areas, staging areas, alternate access routes etc.) for his convenience, the Contractor shall notify the Authority or its representative in writing. The Contractor is cautioned that any deviation from the drawings or specifications is subject to all applicable Federal and state environmental laws and regulations. Compliance with these environmental laws and regulations may require additional National Environmental Policy Act (NEPA) documents, cultural resources surveys, coordination with the Louisiana State Historical Preservation Officer, water quality certification, modification of the Federal Consistency determination, etc.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 PROTECTION OF LAND RESOURCES

3.1.1 General

The land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction that will appear to be natural and not detract from the appearance of the project. The Contractor shall confine his/her construction activities to areas defined by the plans or specifications, including borrow areas to be cleared.

3.1.2 Prevention of Landscape Defacement

Except in areas to be cleared and as provided in paragraph "Temporary Excavation and Embankments", the Contractor shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without the approval of the Authority. Felling of trees shall be performed in such a manner as to avoid damage to trees to be left standing. Where trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's operations or equipment; adequate protection measures shall be implemented. A tree protection zone shall be constructed around all trees that may be affected by construction activities. The tree protection zone shall be established by placing metal posts and temporary construction safety fencing around trees below the trees' canopy drip edge. The Contactor shall not store any material, equipment, backfill, drive any machinery, or cause any changes to the existing grade around trees and their respective canopy drip edges. All monuments and markers shall be protected before beginning operations near them, or properly removed and stored by the Contractor during construction, and repositioned after construction. Landscape features damaged by the Contractor's equipment or operations shall be replaced or restored to their original condition; the Contractor shall secure the services of a licensed arborist to assess any damage to trees that occur as a result of construction activities. The Contractor shall submit to the Authority, for review and approval, a written report from the licensed arborist on the inflicted damage, as well as a proposed remediation plan of action, or if required the replacement of affected trees. The plan of action shall identify measures such as proper pruning and bark tracing to restore the damaged trees, or tree replacement options. No separate measurement and payment will be made for any work required implementing tree protection zone measures around trees within the construction limits that are to remain. The Contractor shall include any and all costs for tree protection zone measures in the contract prices for items to which the work is incidental thereto. Should the services of a licensed arborist be required as a result of damages due to the actions of the Contractor, all services, material, labor and equipment to implement the remediation plan and restore and or replace the affected trees shall be accomplished by the Contractor at no additional cost to the Authority.

3.1.3 Temporary Excavation and Embankments

If the Contractor proposes to construct temporary roads or embankments and excavation for plant and/or work areas, he shall obtain approval of the Authority prior to start of such temporary work.

3.1.4 Post-Construction Cleanup or Obliteration

The Contractor shall obliterate all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, and stockpiles of excess or waste materials upon completion of construction. The Contractor will be required to restore the

construction area to near natural conditions that will permit the growth of vegetation.

3.1.5 Recording and Preserving Historical and Archeological Finds

When any item having apparent historical or archeological interest is discovered in the course of any construction activities, then no work will proceed in the area containing these cultural resources until a an archaeologist has been notified and final coordination with the State Historic Preservation Officer has been completed. The Contractor will leave the archeological find undisturbed and shall immediately report the find to the Authority so that the proper authorities may be notified.

3.2 PROTECTION OF WATER RESOURCES

3.2.1 Contamination of Water

The Contractor shall not pollute lakes, ditches, rivers, bayous, canals, groundwater, waterways, or reservoirs with fuels, oils, bitumens, calcium chloride, insecticides, herbicides, or other similar materials harmful to fish, shellfish, or wildlife, or materials which may be a detriment to outdoor recreation.

3.2.2 Disposal of Materials

The methods and locations of disposal of materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., within the right-of-way limits shall be such that harmful debris will not enter lakes, ditches, rivers, bayous, canals, groundwater, waterways, or reservoirs by erosion, and thus prevent the use of the area for recreation or present a hazard to wildlife.

3.2.3 Erosion Control

Surface drainage from cuts and fills within the construction limits, whether or not completed, and from borrow and waste disposal areas, shall, if turbidity producing materials are present, be held in suitable sedimentation ponds or shall be graded to control erosion within acceptable limits. Temporary erosion and sediment control measures shall be provided and maintained until permanent drainage and erosion control facilities are completed and operative. The area of bare soil exposed at any one time by construction operations shall not exceed that necessary to perform the work. Stream crossings by fording with equipment shall be limited to control turbidity and in areas of frequent crossings temporary culverts or bridges shall be installed. Any temporary culverts or bridges shall be removed upon completion of the project. Fills and waste area shall be constructed by selective placement to eliminate silts or clays on the surface that will erode and contaminate adjacent streams.

3.3 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps required to prevent any interference of disturbance to fish and wildlife. The Contractor will not be permitted to alter water flows or otherwise disturb native habitat adjacent to the project area that are critical to fish or wildlife.

3.4 JANITOR SERVICES

The Contractor shall furnish daily janitorial services for all the offices, shops, laboratories, or other buildings being used by the Contractor or Authority employees, whether existing or Contractor furnished, and perform any required maintenance of the facilities and grounds during the life of the contract. Toilet facilities shall be kept clean and sanitary at all times. Services shall be performed at such a time and in such a manner to least interfere with the operations but will be accomplished only when the buildings are in daily use. Services shall be accomplished to the satisfaction of the Authority. The Contractor shall also provide daily trash collection and cleanup of the buildings and adjacent outside areas, snow removal as required, and shall dispose of all discarded debris, aggregate samples and concrete test samples in a manner approved by the Authority.

3.5 DISPOSAL OF NON-REGULATED DEBRIS

All debris resulting from construction operations on this contract shall be disposed of in accordance with Section 31 11 00.00 12 CLEARING, paragraph "DISPOSAL OF DEBRIS".

3.6 DISPOSAL OF HAZARDOUS AND/OR REGULATED SOLID WASTES

If any hazardous or regulated solid wastes will be generated as a result of the Contractor's operations, the Contractor shall submit a plan that details the proper handling, removal, transportation and disposal of such wastes. The plan shall identify what types of hazardous and/or regulated solid wastes will be generated and shall list the hazards involved with each waste. All waste generated on-site by the Contractor must be properly identified within 30 days of generation. No regulated wastes shall be allowed to accumulate on-site for more than 90 days. Regulated solid wastes are those listed in the LAC 33:VII. The plan shall include Safety Data Sheets (SDS), if applicable, for all wastes expected to be generated. The plan shall include, but not be limited to the following:

a) Hazardous waste shall be place in closed containers and shall be shielded adequately to prevent dispersion of the waste by wind or water. Any evidence of improper storage shall be cause for immediate shutdown of the project until corrective action is taken.

b) Nonhazardous waste shall be stored in containers separate from hazardous waste storage areas.

c) All hazardous waste shall be transported by a licensed transporter in accordance with LAC 33:V and 49 CFR 171, Subchapter C.

d) All nonhazardous waste shall be transported in accordance with local regulations regarding waste transportation.

e) In addition to the number of manifest copies required by LAC 33:V, one copy of each manifest will be supplied to the Authority prior to transportation.

f) The plan shall identify what types of hazardous and/or regulated solid wastes will be generated and shall list the hazards involved with each waste.

3.6.1 Hazardous Wastes

For the handling, removal, transportation and disposal of any generated hazardous wastes, the plan shall conform to the requirements of 40 CFR 260, 49 CFR 171 - 178 as well as other applicable Federal, State and Local regulations. All employees of the Contractor of his/her Subcontractors that will be directly involved in the handling and/or removal of hazardous wastes shall be trained in accordance with 29 CFR 1910.120. In addition, the employees shall have undergone a medical evaluation in accordance with 29 CFR 1910.120. The Contractor shall include copies of employees' certifications and medical examinations as part of the plan specified herein. The plan shall also address the proper Personnel Protective Equipment (PPE) that the employees will be required to wear during the handling and removal of hazardous wastes. The Contractor shall obtain an EPA ID# and Hazardous Waste Disposal Manifests and shall sign the manifests as the generator. Wastes shall be transported via state and Federal approved hazardous waste transporter and disposed of at a state and Federal approved temporary storage and disposal (TSD) facility. Copies of licenses and certifications of the transporter and TSD shall be included in the plan. The plan shall list the name and address of each transporter and TSD to be utilized. The Contractor shall be responsible for any sampling and analysis required by the TSD for characterization purposes. The Contractor shall submit to the Authority completed copies of all Hazardous Waste Disposal Manifests within five (5) days after ultimate disposal at the TSD. Other regulations applicable to the handling, removal, transportation and disposal of hazardous wastes are: 40 CFR 261; 40 CFR 262; 40 CFR 268; and LAC 33:V.

3.6.2 Regulated Solid Wastes

For the handling, removal, transportation and disposal of any generated regulated solid wastes, the plan shall conform to the requirements of LAC 33:VII. Solid wastes shall be transported to a Federal and state approved TSD, oil recycling program or Industrial Type I Landfill. The Contractor shall identify in the plan how he/she intends to dispose of each solid waste. The plan shall include the name, address, licenses and certifications of each disposal facility that will be used. If disposal manifests are required, the Contractor shall sign them as the generator. The Contractor shall be responsible for any sampling and analyses that may be required by the disposal facility (ies) for characterization purposes. Licenses and certifications of the transporter and disposal facilities shall be included in the plan. The Contractor shall submit to the Authority a completed copy of any waste disposal manifests within five (5) days after ultimate disposal.

3.6.3 Laboratory Accreditation

All laboratory testing for waste determinations shall be performed by a laboratory which has received accreditation from the Louisiana Department of Environmental Quality (LDEQ) laboratory certification program. The name and address of the laboratory shall be included in the "Waste Classification, Handling, and Disposal Plan."

3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES

During the life of this contract the Contractor shall maintain all facilities constructed for pollution control under this contract as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. Early in the construction period the

Contractor shall conduct a training course that will emphasize all phases of environmental protection.

3.8 REPORTING OF POLLUTION SPILLS

In the event that an oil spill or chemical release occurs during the performance of this contract, the Contractor is required to contact the National Response Center, telephone number 1-800-424-8802 as soon as possible, or if telephone communication is not possible, the nearest U.S. Coast Guard office may be contacted by radio to report the spill, (33 CFR 153.203). The Contractor shall comply with any instructions from the responding agency concerning containment and/or cleanup of the spill.

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SECTION 01 57 23.00 12

STORM WATER POLLUTION PREVENTION PLAN

PART 1 GENERAL

1.1 SCOPE

The work specified in this section consists of the Contractor implementing, and diligently pursuing all measures required in the Storm Water Pollution Prevention Plan (SWPPP). The SWPPP consists of this Section, 01 57 23.00 12, and any and all references and attachments including existing and future signed certification statements. The purpose of the SWPPP is to control soil erosion and the resulting sediment to the extent necessary to prevent sediment from leaving the contract rights-of-way and prevent pollution of any water body caused by the runoff from the areas of construction activities under this contract, under the terms of PERMIT NO. LAR100000 (copy attached at the end of this section), and as specified herein and shown on the drawings. The requirements of these specifications are supplemental to and shall become part of the overall Environmental Protection Plan required by Section 01 57 20.00 12 ENVIRONMENTAL PROTECTION. The Contractor shall review the SWPPP to determine requirements for compliance. In addition, the Contractor shall ascertain that his subcontractors have reviewed the plan, and that they comply with its provisions. The Contractor shall ensure that all sub-contractors sign, "Certification Statements #1, #2 and #3" (blank forms attached at the end of this section).

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D 4491	(1999; R 2004e1) Water Permeability of Geotextiles by Permittivity
ASTM D 4632	(2008) Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(2004) Determining Apparent Opening Size of a Geotextile
ASTM D 4833	(2000e1) Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
ASTM D 4873	(2002) Identification, Storage, and Handling of Geosynthetic Rolls and Samples

1.3 MEASUREMENT AND PAYMENT

1.3.1 SWPPP

No separate measurement and payment will be made for the implementation of the Storm Water Pollution Prevention Plan required by this section, except as specified in paragraphs “Silt Fence” and “Truck Wash-Down Rack”. Price and payment shall be distributed amongst the existing items.

1.3.2 Silt Fence

Measurement for silt fences satisfactorily placed will be made by the linear foot. Payment for silt fences as specified herein will be made at the contract unit price per linear foot for "Silt Fences." Price and payment shall constitute full compensation for furnishing all plant, labor, materials and equipment, including geotextile, and performing all operations necessary for the placement, maintenance, removal, and disposal of silt fences throughout the contract period, including final dressing and cleanup.

1.3.3 Truck Wash Down Racks

Measurement and payment for truck wash down racks will be as specified in Section 01 57 23.01 12 TRUCK WASH DOWN RACK.

1.4 DEFINITIONS

a. Construction Owner - The construction owner is the party that has operational control over plans and specifications including the ability to make changes to those items. Southeast Louisiana Flood Protection Authority – West (SLFPA-W), or the Authority, is the construction owner.

b. Construction Operators - The construction operators are the party having control over the plans and specifications and the party having day-to-day operational control over those activities at a project site which are necessary to ensure compliance with the SWPPP or other permit conditions. Both the Authority and the Contractor are the construction operators.

c. Notice of Intent (NOI) - A document that is completed and submitted to the Louisiana Department of Environmental Quality as application for coverage to discharge under the PERMIT NO. LAR100000. (Copy provided at the end of this section.)

d. Notice of Termination (NOT) - A document that is completed and submitted to the Louisiana Department of Environmental Quality to terminate permission to discharge under the PERMIT NO. LAR100000. The NOT must be filed within 30 days after final stabilization of the construction site has been achieved or the Contractor is no longer the construction operator. (Copy provided at the end of this section.)

1.5 GENERAL

The Contractor shall implement the Storm Water Pollution Prevention Plan (SWPPP) specified in a manner which will meet the requirements of Section 01 57 20.00 12 ENVIRONMENTAL PROTECTION, and the requirements of the Louisiana Pollution Discharge Elimination System (LPDES) permit, PERMIT NO. LAR100000 effective October 1.

1.5.1 Environmental Assessment of Contract Deviations

The Contractor is advised that deviations from the SWPPP could result in the requirement for the Authority to reanalyze the project from an environmental standpoint. Deviations from the SWPPP erosion control requirements as specified herein and as shown on the drawings which may have an environmental impact will require an extended review, processing, and approval time by the Authority.

1.5.2 Notice Of Intent

Upon preparation of a complete SWPPP, the NOI will be submitted by the Authority to the LDEQ as application for the Authority's coverage under the terms of PERMIT NO. LAR100000. A copy of the Authority's NOI, will be provided to the Contractor at the Pre-construction Conference for the Contractor's use in preparing their NOI. If a specific LPDES permit applicable to this construction item has been received from the LDEQ in response to the NOI, a copy of the specific LPDES permit will also be provided to the Contractor. The Contractor shall make any necessary modification to this SWPPP; attach the Construction Owner / Operator certification statement provided at the end of this section to the SWPPP; and certify by signing the statement as the construction operator. The Contractor shall then submit an NOI to the LDEQ as application for his/her coverage under the terms of PERMIT NO. LAR100000, prior to initiating any construction activities. Certified mail is recommended for Contractor's proof of submittal. A copy of the Contractor's NOI submittal shall be provided to the Authority’s Representative at the time of submittal. LDEQ will provide a specific LPDES permit to the Contractor in response to that NOI submittal. The NOI's of both the Contractor and the Authority, as well as the specific permits in response to the NOI, shall be posted at the job site by the Contractor. (Forms are attached at the end of this Section.)

1.6 SUBMITTALS

A sample, approximately 2 feet by 4 feet, of each geotextile that the Contractor plans to use for Silt Fence shall accompany the certificate required below.

1. A mill certificate or affidavit shall be provided attesting that the geotextile meets the chemical, physical, and manufacturing requirements stated in this specification. The mill certificate or affidavit shall specify the actual Minimum Average Roll Values and shall identify the geotextile supplied by roll identification numbers. The Contractor shall submit a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the geotextile.

2. Geotextile shall not be delivered to the site until the geotextile is approved by the Authority.

1.7 RECORD RETENTION REQUIREMENTS

1.7.1 Documents

The Contractor shall retain copies of the SWPPP and all reports required by the general permit, and all records of data used to complete the NOI, for a period of at least three years from the date that the construction site is finally stabilized. Records of the NOI as well as any data used to complete it, the SWPPP, and any reports required by PERMIT NO. LAR100000 shall be retained by the permittee for at least three years from the date that the site is finally stabilized.

1.7.2 Plan Accessibility

A copy of the SWPPP and a copies of all permits received, shall be retained at the construction site (or other local location accessible to the State Administration Authority and the public) from the date of construction initiation to the date of final stabilization. The Contractor shall have a copy of the plan available at a central location on-site for the use of all operators and those identified as having responsibilities under the plan whenever they are on the construction site. A notice shall be posted near the main entrance to the construction site with the following information: (1) the LPDES permit number for the project or a copy of the NOI if a permit has not yet been assigned; (2) the name and telephone number of a local contact person; (3) a brief description of the project; and (4) the location of the SWPPP if the site is inactive or does not have an on-site location to store the plan.

1.7.3 Activity Records

The dates of the following activities shall be recorded:

(1) Major grading activities occurred.

(2) Construction activities temporarily or permanently ceased.

(3) Stabilization measures were initiated.

1.7.4 LDEQ Correspondence

Any written correspondence with the LDEQ concerning the NOI, NOT, SWPPP, or discharges from any facility covered under PERMIT NO. LAR100000, shall be identified by permit number, if one has been assigned, and sent to the address below:

Louisiana Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, LA 70821-4313

Attn: Permits Division

1.8 MAINTENANCE AND SURVEILLANCE FEES

The Contractor shall, without additional expense to the Authority, be responsible for paying any state required annual maintenance and

surveillance fee for work associated with coverage under PERMIT NO. LAR100000.

1.9 EROSION AND SEDIMENT CONTROLS

The controls and measures required for controlling sediment during construction are described below.

1.9.1 Stabilization Controls

The stabilization practices to be implemented shall include fertilizing and seeding fertilizing, seeding, and mulching as specified in Section 32 92 19.04 12 TURF ESTABLISHMENT AND MAINTENANCE or any other temporary measure to restrict erosion from the construction site. On the Daily Progress Report, the Contractor shall record the dates when the major grading activities occur, (e.g., clearing excavation, embankment, and grading); when construction activities temporarily or permanently cease on a portion of the site; and when stabilization practices are initiated. Except as provided in paragraphs "Unsuitable Conditions" and "No Activity for Less Than 21 Days," stabilization practices shall be initiated as soon as practicable, but no more than 14 days, in any portion of the site where construction activities have temporarily or permanently ceased.

1.9.1.1 Unsuitable Conditions

Where the initiation of stabilization measures by the fourteenth day after construction activity temporarily or permanently ceases is precluded by unsuitable conditions caused by the weather, stabilization practices shall be initiated as soon as practicable after conditions become suitable.

1.9.1.2 No Activity for Less Than 21 Days

Where construction activity will resume on a portion of the site within 21 days from when activities ceased (e.g., the total time period that construction activity is temporarily ceased is less than 21 days), then stabilization practices do not have to be initiated on that portion of the site by the fourteenth day after construction activity temporarily ceased. Stabilization practices shall be initiated on that portion of the site by the fourteenth day in the case where construction activities will not resume within 21 days after construction activities have ceased.

1.9.2 Structural Controls

Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. At the Contractor's option, the structural practices shall include either of the following devices. Location and details of installation and construction are shown on the drawings.

1.9.2.1 Silt Fence Barrier

The Contractor shall provide silt fences as a temporary structural practice to minimize erosion and sediment runoff. Silt fences shall be properly installed, as shown on the contract drawings, to effectively retain sediment immediately after completing each phase of work where erosion would occur in

the form of sheet and rill erosion (e.g. clearing, excavation, embankment, and grading). Silt fences shall be installed in the locations indicated on the drawings. Silt fences shall also be attached to all safety fences. Final removal of silt fence barriers shall be upon approval by the Authority Representative.

1.9.2.2 Truck Wash Down Rack

See Section 01 57 23.01 12 TRUCK WASH DOWN RACK.

PART 2 PRODUCTS

2.1 COMPONENTS FOR SILT FENCE BARRIER

2.1.1 Silt Fence Geotextile

The geotextile shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. The filament shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of ester, propylene, or amide, and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistant to deterioration due to ultraviolet and heat exposure. Geotextile shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of (0 to 120 degrees F). The silt fence geotextile shall meet the following requirements:

GEOTEXTILE FOR SILT FENCE

PROPERTY	TEST PROCEDURE	VALUE
Grab Breaking Load, (pounds)	ASTM D 4632	200 minimum
Grab Elongation at Ultimate, percent	ASTM D 4632	20 maximum
Puncture Strength, (pounds)	ASTM D 4833	130 minimum
AOS, U.S. Standard Sieve No.	ASTM D 4751	30 - 70
Permittivity, per second	ASTM D 4491	0.25 minimum

2.1.2 Wooden Posts and Steel T-Posts

The Contractor may use either rounded wooden posts or steel T-posts for silt fence construction. Wooden posts utilized for silt fence construction, shall have a minimum 3-1/2 inch diameter, and shall have a minimum length of 7 feet, and shall be either oak or pine wood. Steel T-posts utilized for silt fence construction, shall have a minimum weight of 1.33 pounds per linear foot and a minimum length of 7 feet.

2.1.3 Identification Storage and Handling

Geotextile shall be identified, stored and handled in accordance with ASTM D 4873.

PART 3 EXECUTION

3.1 INSTALLATION OF SILT FENCE BARRIER

The silt fence and orange meshed fence shall be located and installed as indicated on the contract drawings. Coordinates for installation are provided at the end of this section. Geotextile shall be from a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, geotextile shall be spliced together at a support post, with a minimum 6-inch overlap, and securely sealed. A trench shall be excavated approximately 4 inches wide and 6 inches deep on the upslope side of the location of the silt fence. The 4-inch by 6-inch trench shall be backfilled and the soil compacted over the geotextile. The geotextile shall be attached to the land side of the post with wire or other method recommended by the manufacturer and such that a 6-inch length of geotextile is left unattached at the bottom of the post, the unattached geotextile embedded in the trench and the trench backfilled. It is the responsibility of the Contractor to maintain the integrity of the both fence alignments. The Contractor shall immediately correct any deficiencies. The silt fence and orange meshed fence shall be promptly repaired or replaced should it become damaged or otherwise ineffective. The silt fence barrier shall face the 404c area and the orange meshed fence shall face the levee and both fences shall be removed upon completion of the project, or as directed by the Authority. Its maintenance shall be continual for that period of time for which excavated materials are placed in the area of the fence barriers.

Activity sequence. The installation of the silt fence barrier, denoting the 404c wetland limits along the levee flood side toe. The degrading and recapping of the existing levee crown. Light clearing of the existing berm and levee for construct of a flood side enlargement. There will be no clearing operations at the borrow site, since the pits have been previously approved by the Government and used by other Contractors. Borrow material removed from pit will be temporarily stockpiled and processed to dry in accordance with Section 31 24 00.00 12, EMBANKMENT. Placement of clay material within the levee design section shall be installed according to the compacted fill method. Prior to fertilizing, seeding and mulching the area the ground surface will be prepared in accordance with Section 32 92 19 04.00 12, TURF ESTABLISHMENT AND MAINTENANCE, paragraph entitled PREPARATION OF GROUND SURFACE.

3.2 INSTALLATION OF TRUCK WASH DOWN RACKS

Operation of truck wash down racks shall not include use of detergents. Sediments resulting from operation of truck wash down racks shall not be permitted to pollute any receiving waters. Sediments shall be utilized in the job or disposed of as construction debris. Sediment retention measures shall be utilized as described in Section 01 57 23.01 12 TRUCK WASH DOWN RACK.

3.3 MAINTENANCE

The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures.

3.3.1 Silt Fence Barrier Maintenance

Silt fences shall be inspected in accordance with paragraph "INSPECTIONS." Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the geotextile on a silt fence decompose or become ineffective, and the barrier is still necessary, the geotextile shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier. Sediments shall be utilized in the job or disposed of as construction debris. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be seeded in accordance with Section 32 92 19.04 12 TURF ESTABLISHMENT AND MAINTENANCE.

3.4 INSPECTIONS

3.4.1 General

The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and area where vehicles exit the site at least once every fourteen (14) calendar days, before anticipated storm events (or series of storm events such as intermittent showers over one or more days) expected to cause a significant amount of runoff, and within 24 hours of the end of any storm that produces (0.5 inches) or more rainfall at the site. Where sites have been finally stabilized, such inspection shall be conducted at least once every two weeks.

3.4.2 Inspections Details

Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPPP shall be observed to ensure that they are operating correctly. Discharge locations or points shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.

3.4.3 Inspection Reports

For each inspection conducted, the Contractor shall prepare a report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWPPP, maintenance performed, and actions taken. The report shall be furnished to the Authority Representative within 24 hours of the inspection as a part of the Contractor's Daily Progress Report. A copy of the inspection report shall be maintained on the job site.

3.5 NOTICE OF TERMINATION

Upon stabilization and elimination of all storm water discharges authorized by PERMIT NO. LAR100000, or where the operator of all storm water discharges at a facility changes, a Notice of Termination (NOT) shall be certified and submitted by the Contractor to the Permits Division at the LDEQ. A copy of the NOT form is provided at the end of this section. Certified mail is

recommended for proof of the NOT submittal. The NOT shall be submitted within 30 days of final stabilization of the construction site or when the Contractor is no longer the construction operator.

CERTIFICATION STATEMENT #1

Any person, including the construction owner/operator, signing documents (the SWPPP, modifications to the SWPPP, or other reports) under Part VI.G. of PERMIT NO. LAR100000 shall make the following certification.

(Contract Title)

(Permit Number)

(Document being Certified, such as SWPPP)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I also certify that a storm water pollution prevention plan, including both construction and post construction controls, has been prepared for the site in accordance with the permit and that such plan complies with approved State, Tribal and/or local sediment and erosion plans or permits and/or storm water management plans or permits. I am aware that signature and submittal of the Notice of Intent is deemed to constitute my determination of eligibility under one or more of the requirements of Permit Part I.A.3.e(1), related to the Endangered Species Act requirements. To the best of my knowledge, I further certify that such discharges and discharge related activities will not have an effect on properties listed or eligible for listing on the National Register of Historic Places under the National Historic Preservation Act, or are otherwise eligible for coverage under Part I.A.3.f of the permit. I am also aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____

Printed Name _____

Title _____

Company _____

Date _____

Telephone _____

CERTIFICATION STATEMENT #2

Any Contractor or subcontractor implementing any part of this plan must prepare and sign a copy of the following certification.

(Contract Title)

(Permit Number)

(Document being Certified, such as SWPPP)

I certify, under penalty of law, that I understand the terms and conditions of the Louisiana Pollutant Discharge Elimination System (LPDES) general permit that authorizes storm water discharges associated with construction activity from the construction site identified as part of this certification.

Firm Name: _____

Address: _____

_____ Telephone No: _____

Signature: _____ Title: _____

Date: _____

CERTIFICATION STATEMENT #3

Any Contractor or subcontractor that does not meet the definition of "operator" that will conduct activities that may impact the effectiveness of the SWPPP control measures must prepare and sign the following certification.

(Contract Title)

(Permit Number)

(Document being Certified, such as SWPPP)

I certify, under penalty of law, that I will coordinate, through the contractor, owner, or directly, with the Contractor (s) identified in the pollution prevention plan having responsibility for implementing storm water control measures to minimize any impact my actions may have on the effectiveness of these storm water control measures.

Firm Name: _____

Address: _____

_____ Telephone No: _____

Signature: _____ Title: _____

Date: _____

To: **Prospective Applicants for a Storm water General Permit Associated with Construction Activity Greater than 5 Acres**

Attached is a **Stormwater General Permit Associated with Construction Activity Greater than 5 Acres Notice of Intent (NOI) CSW-G,** for a Louisiana Pollutant Discharge Elimination System (LPDES) permit, authorized under EPA's delegated NPDES program under the Clean Water Act.

Projects do not qualify for coverage under the general permit unless the NOI is complete and correct. To be considered complete, EVERY ITEM on the form must be addressed and the last page signed by an authorized company agent. If an item does not apply, please enter "NA" (for not applicable) to show that the question was considered.

Payment of the Annual Maintenance and Surveillance Fee(s) MUST be received with the NOI. Attach a check or money order to the NOI or go to http://business.deq.louisiana.gov/ to create an online account.

NOIs without payment are considered incomplete.

Two copies (one original and one copy) of your **completed and signed NOI** should be submitted to:

Mailing Address:
Department of Environmental Quality
Office of Environmental Services
Post Office Box 4313
Baton Rouge, LA 70821-4313
Attention: Water Permits Division

Physical Address (if NOI is hand delivered):
Department of Environmental Quality
Office of Environmental Services
602 N Fifth Street
Baton Rouge, LA 70802
Attention: Water Permits Division

Please be advised that completion of this NOI may not fulfill all state, federal, or local requirements for facilities of this size and type.

According to L. R. S. 48:385, any discharge to a state highway ditch, cross ditch, or right-of-way shall require approval from:

Louisiana DOTD
Office of Highways
Post Office Box 94245
Baton Rouge, LA 70804-9245
(225) 379-1927

AND

Louisiana DHH
Office of Public Health
Center for Environmental Services
Post Office Box 4489
Baton Rouge, LA 70821-4489
(225) 342-7499

A copy of the LPDES regulations may be obtained from the Department's website at **http://www.deq.louisiana.gov/portal/tabid/1674/Default.aspx**.

After the review of the NOI, this Office will issue written notification to those applicants who are accepted for coverage under this general permit. For questions regarding this NOI please contact the Water Permits Division at (225) 219-9371. For help regarding completion of this NOI please contact DEQ, Small Business/Small Community Assistance at 1-800-259-2890.

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Environmental Services, Permits Division
Post Office Box 4313
Baton Rouge, LA 70821-4313
PHONE#: (225) 219-9371

LPDES NOTICE OF INTENT (NOI) TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY GREATER THAN 5 ACRES

(Attach additional pages if needed.)

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by an LPDES permit issued for storm water discharges associated with construction activity in Louisiana. In order to be automatically authorized under General Permit LAR100000 you must submit a complete and accurate NOI to the LDEQ.

EVERY ITEM MUST BE COMPLETED.

Submission of this Notice of Intent also constitutes that implementation of the Storm Water Pollution Prevention Plan required under the general permit will begin at the time the permittee commences work on the construction project identified in Section I below.

SECTION I - FACILITY INFORMATION

A. Permit is to be issued to the following: (must be a party having operational control over construction plans and specifications and /or a party having day-to-day operational control over those activities at a project site which are necessary to ensure compliance with the storm water pollution prevention plan or other permit conditions LAC 33:IX.2501.B and LAC 33:IX.2503.A and B).

1. Legal Name of Applicant
(Company, Partnership, Corporation, etc.) _____

Project Name _____

(NOTE: Only one NOI needs to be submitted to cover all of the permittee's activities on the common plan of development or sale (e.g., you do not need to submit a separate NOI for each separate lot in a **residential subdivision** or for two separate buildings being constructed on the same property, provided your SWPPP covers each area for which you are the operator.)

Mailing Address _____

_____ Email: _____ Zip Code: _____

If the applicant named above is not also the owner, state owner name, phone # and address.

_____

_____

Check status: ☐ Federal ☐ Parish ☐ Municipal ☐
☐ State ☐ Public ☐ Private ☐ Other: _____

2. Location of project. Provide a specific address, street, road, highway, interstate, and/or River Mile/Bank location of the project for which the NOI is being submitted

_____

City _____ Zip Code _____ Parish _____

Front Gate Coordinates:

Latitude- ___deg. ___min. ___sec. Longitude- ___deg. ___ min. ___sec.

Method of Coordinate Determination: _____

(ex:http://terraserver-usa.com/Quad Map, Previous Permit, website, GPS)

Is the facility located on Indian Lands? ☐ Yes ☐ No

B. Storm water Pollution Prevention Plan Information.

1. Has the Storm water Pollution Prevention Plan (SWPPP) been prepared? (NOTE: The SWPPP must be prepared prior to submittal of the NOI. Do **not** submit SWPPP with this NOI.)
   ☐ Yes ☐ No
2. Indicate address of location of SWPPP if different from Project Location. **(N/A if SWPPP is located at the construction site.)**
   Address _____

   City _____ State _____ Zip _____

C. Location Information

1. Estimated Construction Start Date: (mo/day/yr) _____
2. **Select how long the permit is needed:**

   ☐ **0 months - 1 year**

   ☐ **2 years (not available after 9/30/2018)**

   ☐ **3 years (not available after 9/30/2017)**

   ☐ **4 years (not available after 9/30/2016)**

   ☐ **5 years (not available after 9/30/2015)**

   Note: Coverage cannot be granted beyond 9/30/2019 (the expiration date of the general permit). Therefore, 5 years is not available after 9/30/2015, 4 years is not available after 9/30/2016, etc. Instructions on extending coverage beyond 9/30/2019 will be provided at the time the master general is reissued.
3. Estimate of area to be disturbed (to nearest acre) _____
4. Describe the project or facility being constructed, such as a subdivision, single home, business, road project, or retail development (**be specific, if clearing land indicate if there are future plans to build a facility, subdivision, or retail development**):

_____

5. Is the project part of a larger development or subdivision? (5 acres or greater) ☐ Yes ☐ No

If yes, provide the name of the development or subdivision. _____

D. Discharge Information

1. Indicate how the storm water run-off reaches state waters (named water bodies). This will usually be either *directly*, by *open ditch* (if it is a highway ditch, indicate the highway), or by *pipe*. Please specifically name all of the minor water bodies that your discharge will travel through on the way to a major water body. This information can be obtained from U.S.G.S. Quadrangle Maps. Maps can also be obtained online at http://map.deq.state.la.us/ or www.mytopo.com. Private map companies can also supply you with these maps. If you cannot locate a map through these sources you can contact the Louisiana Department of Transportation and Development at the address on the first page of this form.

By _____ (effluent pipe, ditch, etc.);

thence into _____ (effluent pipe, ditch, etc.);

thence into _____ (Parish drainage ditch, canal, etc.);

thence into _____ (named bayou, creek, stream, etc.)

2. Based on Appendix C, the Outstanding Natural Resource Water (ONRW) list, does your storm water run-off flow directly into a waterbody listed as an ONRW?

☐ Yes ☐ No

NOTE: If the discharge will ultimately enter a scenic stream, contact the Louisiana Department of Wildlife and Fisheries (LDWF) Scenic Stream Division at 318-343-4044 for direction regarding how to comply with their requirements.

3. Based on Appendix A, Endangered Species Guidance, are there any listed endangered or threatened species in the project area?

☐ Yes ☐ No

NOTE: Use the Endangered Species Guidance in Appendix A to determine if there are listed endangered or threatened species in the project area. Applicants should contact the U. S. Fish and Wildlife Service (address is in Appendix A) for guidance if they need assistance in making a determination.

4. Based on Appendix B, Historic Properties Guidance, are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or in proximity to the discharge?

☐ Yes ☐ No

5. Was the State Historic Preservation Office (see Part I.A.3.f of the permit) involved in your determination of eligibility?

☐ Yes ☐ No

E. Additional Discharge Information

1. Will the project or facility expansion, post-construction, result in a discharge that will require a wastewater discharge permit such as treated sanitary wastewater from a subdivision or apartment complex, industrial storm water or process wastewater?

☐ Yes ☐ No (e.g. direct to city POTW or no post-construction discharge)

2. If yes, does the subdivision, complex, or facility have an LPDES water discharge permit?

☐ Yes ☐ No

If yes, what is the LPDES permit number?

3. If the facility has an LPDES water discharge permit, will the construction activity result in an increase to the permitted discharge?

☐ No ☐ Yes – Please explain:_____

4. If the facility **does not** have an LPDES permit or if the construction will result in an **increased discharge,** the party or developer responsible for construction plans and specifications must provide a Request for Preliminary Determination (RPD), Notice of Intent (NOI), or a request for permit modification within **14 days** of submittal of the Construction NOI to: DEQ, OES, P.O. Box 4313, Baton Rouge, LA 70821-4313, Attn: Water Permits Division**.** Failure to submit this information may result in denial of this and/or any future applications for discharge of wastewater to waters of the state. The "Request for Preliminary Determination of LPDES Permit Issuance" form requests the information referenced above and can be accessed on our web page http://www.deq.louisiana.gov under DIVISIONS, Water Permits, LPDES Permits, LPDES Forms.

SECTION II – LAC 33.I.1701 REQUIREMENTS

A. Does the company or owner have federal or state environmental permits in other states that are identical to, or of a similar nature to, the permit for which you are applying? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.)

☐ Permits in Louisiana. List Permit Numbers or attach a list: _____

☐ Permits in other states (list states): _____

☐ No environmental permits.

B. Do you owe any outstanding fees or final penalties to the Department? ☐ Yes ☐ No

If yes, please explain.

_____

C. Is your company a corporation or limited liability company? ☐ Yes ☐ No

If yes, is the corporation or LLC registered with the Secretary of State? ☐ Yes ☐ No

SECTION III - SIGNATURE

According to the Louisiana Water Quality Regulations, LAC 33:IX.2503, the following requirements shall apply to the signatory page in this application:

Chapter 25. Permit Application and Special LPDES Program Requirements

2503. Signatories to Permit Applications and Reports

A. All permit applications shall be signed as follows:

1. For a corporation - by a responsible corporate officer. For the purpose of this Section, responsible corporate officer means:

   (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

   (b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to ensure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

NOTE: LDEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in the Permit **Standard Permit Conditions, Part VI.G.1.a(1)** The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Permit **Standard Permit Conditions, Part VI.G.1a.(2)** rather than to specific individuals.

2. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively; or

3. For a municipality, state, federal or other public agency – by either a principal executive officer or ranking elected official. For the purposes of this section, a principal executive officer of a federal agency includes:

   (a) The chief executive officer of the agency, or

   (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I also certify that a storm water pollution prevention plan, including both construction and post construction controls, has been prepared for the site in accordance with the permit and that such plan complies with approved State, Tribal and/or local sediment and erosion plans or permits and/or storm water management plans or permits. I am aware that signature and submittal of the NOI is deemed to constitute my determination of eligibility under one or more of the requirements of Permit Part I.A.3.e(1), related to the Endangered Species Act requirements. To the best of my knowledge, I further certify that such discharges and discharge related activities will not have an effect on properties listed or eligible for listing on the National Register of Historic Places under the National Historic Preservation Act, or are otherwise eligible for coverage under Part I.A.3.f of the permit. I am also aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NOTE: **SIGNATURE MUST COMPLY WITH REQUIREMENTS STATED ABOVE IN SECTION III.**

Signature _____

Printed Name _____

Title _____

Company _____

Date _____

Telephone _____

Email: _____

Federal Tax ID No. _____

*****ANY NOI THAT DOES NOT CONTAIN ALL OF THE REQUESTED INFORMATION WILL BE CONSIDERED INCOMPLETE. NOI PROCESSING CANNOT PROCEED UNTIL ALL REQUIRED INFORMATION HAS BEEN SUBMITTED**.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Office of Environmental Services, Water Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313
PHONE#: (225) 219-3181

LPDES NOTICE OF TERMINATION OF COVERAGE UNDER
LPDES GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH CONSTRUCTION ACTIVITIES FIVE ACRES OR MORE (LAR100000)

I. **PERMIT INFORMATION**

Facility's Storm Water Authorization Number LAR10 _____ AI #: _____

_____ Check here if you are no longer the Operator of the Facility OR if the facility has been sold

_____ Check here if the storm water discharge associated with the construction activity is Being Terminated

II. **FACILITY OPERATOR INFORMATION**

Name: _____

Mail Address: _____

City: _____

State: _____ Zip Code: _____ Phone: _____

III. **FACILITY/SITE LOCATION INFORMATION**

Name of Project: _____

Location of Project: _____

City: _____ State: _____ Zip Code: _____

Parish _____

IV. **CERTIFICATION**

I certify under penalty of law that all storm water discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or that I am no longer an operator at the construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with construction activity under this general permit, and that discharging pollutants in storm water associated with construction activity to waters of the State is unlawful under the Clean Water Act where the discharge is not authorized by an LPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violation of this permit or the Clean Water Act.

Print Name: _____ Date: _____
Signature: _____

SILT FENCE COORDINATES

C/L Station	Offset (Ft.)		Northing	Easting
98+27.16	111.57	LT	472,638.00	3,672,450.02
98+59.88	130.31	LT	472,630.70	3,672,487.01
98+62.70	244.28	LT	472,714.91	3,672,563.85
99+58.58	45.45	RT	472,433.27	3,672,446.31
99+85.57	111.13	LT	472,533.81	3,672,569.34
99+85.97	127.19	LT	472,545.68	3,672,580.18
100+29.57	110.60	LT	472,504.56	3,672,602.22
100+29.61	126.11	LT	472,516.25	3,672,612.43
101+23.32	123.79	LT	472,453.07	3,672,681.67
101+26.21	237.76	LT	472,537.23	3,672,758.56
108+04.55	108.41	LT	471,994.84	3,673,186.00
108+19.70	114.05	LT	471,989.17	3,673,201.12
108+27.39	134.65	LT	471,999.69	3,673,220.44
108+60.50	67.17	RT	471,825.58	3,673,113.13
109+30.12	52.06	RT	471,791.34	3,673,175.61
109+48.10	63.86	RT	471,756.56	3,673,224.89
110+05.22	57.00	RT	471,794.04	3,673,327.37
113+15.90	49.27	RT	472,049.31	3,673,501.48
120+11.56	39.86	RT	472,638.86	3,673,870.87
138+25.06	56.37	RT	474,153.50	3,674,868.32
151+13.07	48.63	RT	475,246.97	3,675,548.04
162+63.39	42.24	RT	476,216.43	3,676,167.25
182+71.73	73.33	RT	477,890.68	3,677,275.54
182+71.73	73.33	RT	477,890.68	3,677,275.54
189+51.33	69.63	RT	478,462.88	3,677,642.22
190+88.50	86.08	RT	478,569.01	3,677,730.66
190+88.50	86.08	RT	478,569.01	3,677,730.66
191+03.32	136.71	LT	478,702.68	3,677,551.81
191+10.84	137.99	LT	478,709.68	3,677,554.83
191+15.80	140.42	LT	478,715.16	3,677,555.49
191+17.53	141.65	LT	478,717.29	3,677,555.39
191+20.09	143.67	LT	478,720.53	3,677,555.09
191+45.10	80.18	RT	478,627.34	3,677,760.54
192+70.85	61.61	RT	478,790.80	3,677,757.62
201+32.21	53.83	RT	479,647.76	3,677,670.29
201+59.98	54.10	RT	479,675.43	3,677,667.99
202+39.99	55.02	RT	479,755.19	3,677,661.52
203+80.00	55.00	RT	479,894.60	3,677,648.56
206+20.00	55.13	RT	480,133.58	3,677,626.52
206+40.01	55.11	RT	480,153.50	3,677,624.64

207+40.01	54.46	RT	480,253.02	3,677,614.76
207+60.10	54.40	RT	480,273.01	3,677,612.85
207+80.09	54.10	RT	480,302.06	3,677,607.38
207+91.12	52.19	RT	480,312.18	3,677,602.58
209+94.91	55.05	RT	480,505.25	3,677,582.91
218+76.26	65.01	RT	481,383.04	3,677,506.43
236+77.44	61.85	RT	483,176.22	3,677,336.87
245+18.88	62.01	RT	484,014.08	3,677,259.29
247+47.81	130.53	LT	484,216.17	3,677,044.88
247+55.92	133.90	LT	484,231.64	3,677,039.33
247+63.63	139.77	LT	484,238.77	3,677,032.78
247+72.72	174.58	LT	484,244.61	3,676,997.28
247+72.86	159.76	LT	484,246.12	3,677,012.02
248+82.78	64.47	RT	484,376.28	3,677,225.13
248+86.69	177.41	LT	484,357.83	3,676,983.93

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3.1 Truck Wash-Down Rack

-- End of Section Table of Contents --

SECTION 01 57 23.01 12

TRUCK WASH-DOWN RACK

PART 1 GENERAL

1.1 SCOPE

The work specified in this section consists of the Contractor designing, implementing and maintaining approved truck wash-down rack at the construction site.

1.2 MEASUREMENT AND PAYMENT

Measurement will be made per each for the temporary truck wash-down rack constructed and maintained by the Contractor. Payment for the temporary truck wash-down rack, including its maintenance and removal, will be made at the contract unit price per each for "Truck Wash-Down Rack." Price and payment shall constitute full compensation for furnishing all plant, labor, equipment, mechanical street sweeper, and material to complete the work as specified herein and as shown on drawings.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The Contractor shall provide a truck wash-down rack to be located at a point of egress from the construction site onto the access road to LA HWY 3134 during hauling and construction operations to eliminate mud and debris transported onto public roads. All trucks utilized for hauling shall be pressure washed on the wash-down rack prior to departing the construction site. The truck wash-down rack shall be sized and located within the rights-of-way for the access road per the Contract Drawings.

1. The truck wash-down rack shall consist of wooden timber matting.

2. Granular surfacing material shall be located between the truck wash-down rack and the access road to LA HWY 3134.

3. All truck wash-down rack waste water and sediment shall be intercepted before draining offsite. Dispose of the construction related waste water and sediment in accordance with all Federal, State, Regional and Local laws and regulations.

4. It shall be the responsibility of the Contractor to clean the streets. Failure of the Contractor to comply with these requirements shall result in the Authority’s Representative stopping all hauling operations until the streets are cleaned of debris.

5. Upon completion of the hauling operation, the Contractor shall remove the truck wash-down rack and all appurtenances from the construction site.

6. The area where the truck wash-down rack was located shall be restored to the condition or better than prior to construction activities. All aggregate placed between the wash-down rack and the roadway shall be removed.

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1.11 ITEMS TO REMAIN IN PLACE

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3.1 EXISTING FACILITIES TO BE REMOVED
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-- End of Section Table of Contents -

SECTION 02 41 00

DEMOLITION

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, labor, material, and equipment required to perform all operations necessary for the demolition of the existing concrete slope pavement as specified herein and according to the contract drawings.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE/SAFE)

ASSE/SAFE A10.6	(2006) Safety Requirements for Demolition Operations

1.3 GENERAL REQUIREMENTS

The work includes demolition and removal of resulting rubbish and debris. Remove rubbish and debris from job site daily, unless otherwise directed. All demolition shall conform to requirements necessary to comply with all Federal, State, and local codes and authorities having jurisdiction. Safety shall be the sole responsibility of the Contractor.

1.4 MEASUREMENT AND PAYMENT

No measurement will be made for work covered under this section. Payment will be made at the contract lump sum price for "Demolition of Concrete Slope Paving". Price and payment shall constitute full compensation for providing all plant, labor, materials and equipment, to dismantle, deliver, and dispose of other items, in order to complete the work as specified herein and as shown on the drawings.

1.5 SUBMITTALS

Prior to beginning demolition operations, the Contractor shall submit in writing proposed salvage, demolition, deconstruction, and removal procedures to the Authority Representative for approval before work is started.

1.6 REGULATORY AND SAFETY REQUIREMENTS

Comply with federal, state, and local hauling and disposal regulations. Conform to the safety requirements contained in ASSE/SAFE A10.6.

1.7 DUST CONTROL

Prevent the spread of dust and avoid the creation of a nuisance in the surrounding area.

1.8 PROTECTION OF PERSONNEL

Before, during and after the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the project site. No area, section, or component of structural elements will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

1.9 REQUIRED DATA

Prepare a Demolition Plan. Include in the plan procedures for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Identify components and materials to be salvaged for reuse or recycling with reference to paragraph Existing Facilities to be removed. Plan shall be approved by Authority prior to work beginning.

1.10 ENVIRONMENTAL PROTECTION

Comply with Section 01 57 20.00 12 ENVIRONMENTAL PROTECTION and also with the Environmental Protection Agency requirements specified at https://www.epa.gov/large-scale-residential-demolition/compliance-assistance-tools-demolition.

1.11 ITEMS TO REMAIN IN PLACE

Take necessary precautions to avoid damage to existing items to remain in place. Repair or replace damaged items as approved by the Authority Representative. Coordinate the work of this section with all other work indicated. Construct and maintain shoring, bracing, and supports as required. Ensure that structural elements are not overloaded. Do not destabilize flood protection and provide emergency support and closure capabilities where necessary. Provide new supports and reinforcement for existing construction weakened by demolition, deconstruction, or removal work. Reinforcement for existing structures shall be designed by a registered professional engineer. Repairs, reinforcement, or structural replacement shall be submitted for approval as part of the Demolition Plan.

PART 2 PRODUCT

Not Used

PART 3 EXECUTION

3.1 EXISTING FACILITIES TO BE REMOVED

Inspect and evaluate existing structures on site for reuse. No demolition of existing flood protection shall be done prior to notifying the Authority Representative.

3.2 DISPOSITION OF MATERIAL

3.2.1 Title to Materials

Except for salvaged items specified in related Sections, and for materials or equipment scheduled for salvage, all materials and equipment removed and not reused or salvaged, shall become the property of the Contractor and shall be removed from the site. Title of materials resulting from demolition and materials to be removed, is vested in the Contractor upon beginning demolition. The Authority will not be responsible for the condition or loss of, or damage to, such property after contract award. Showing for sale or selling materials and equipment on site is prohibited.

3.3 CLEANUP

Remove and transport disposal material in a manner that prevents spillage on streets or adjacent areas. Apply local regulations regarding hauling and disposal.

3.4 DISPOSAL OF REMOVED MATERIALS

3.4.1 Regulation of Removed Materials

Dispose of debris, rubbish, scrap, and other non-salvageable materials resulting from removal operations with all applicable federal, state and local regulations as contractually specified.

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SEPARATOR GEOTEXTILE

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3.1 GEOTEXTILE INSTALLATION
3.2 SEAMS AND LAPS
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SECTION 31 05 19.04 12

SEPARATOR GEOTEXTILE

PART 1 GENERAL

1.1 SCOPE

The work provided for herein consists of furnishing all plant, labor, material, equipment; performing all operations required for furnishing, hauling, placing the separator geotextile; and maintaining the geotextiles until placement of the stone embankment is completed and accepted.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D 883	(2000) Terminology Relating to Plastics
ASTM D 4491	(1999; R 2004e1) Water Permeability of Geotextiles by Permittivity
ASTM D 4595	(2005) Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method
ASTM D 4632	(1991; R 2003) Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(2004) Determining Apparent Opening Size of a Geotextile
ASTM D 4884	(1996; R 2003) Strength of Sewn or Thermally Bonded Seams of Geotextiles

1.3 MEASUREMENT AND PAYMENT

Geotextile will be measured in place to the nearest square yard as delineated on the drawings. Overlaps will be measured as a single layer. Payment for the geotextile will be made at the contract unit price per square yard for "Separator Geotextile". Price and payment shall include full compensation for providing all plant, equipment, labor and materials, and for cutting, sewing, placing, testing, taking corrective measures to fix deficiencies, and incidentals as shown on the plans and as specified herein. No payment shall be made for geotextile that is rejected or damaged due to Contractor fault or negligence.

1.4 SUBMITTALS

Prior to beginning installation of separator geotextile fabric, the Contractor shall submit in writing to the Authority Representative a proposed plan to comply with the requirements of this section. This work plan shall include the following:

a. The dimensions of the geotextile panels, whether the geotextile will be seamed, lapped, or both. Distance between laps, if applicable.
b. A detailed description of how the geotextile will be placed and stretched.
c. A 5-foot by 5-foot sample of each geotextile that the Contractor plans to use shall accompany the certificate. If seams are to be used, then an additional 5-foot by 5-foot sample of each geotextile containing a sample seam in the center of the geotextile sample shall be submitted with the certificate. Geotextiles shall not be delivered to the project site until the geotextile samples and certificates are approved by the Authority Representative.
d. Contractor shall submit the geotextile manufacturer's certification of compliance. All brands of geotextile and all seams that are used in construction shall be accepted on the following basis. At least 10 days prior to installation, the Contractor shall furnish to the Authority Representative, in duplicate, a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the geotextile. The certificate shall contain the signer's title, name and address of the Contractor, contract number, and project name and location. The mill certificate or affidavit shall attest that the geotextile meets the chemical, physical, and manufacturing requirements stated in this specification and that the seams used meet the seam requirements.

1.5 QUALITY CONTROL

1.5.1 General

The Contractor shall establish and maintain quality control for the geotextile and placement to assure compliance with contract requirements, and maintain records of his quality control for all construction operations including but not limited to the following:

(1) Installation Equipment. Type, size and suitability for construction of the prescribed work.

(2) Geotextile Submittals. Geotextile samples, manufacturer's certification of compliance, and work plan.

(3) Construction. Lay-out, geotextile inspection, and stone placement above the geotextile.

1.5.2 Reporting

The original and two copies of these records, as well as the records of corrective action taken, shall be furnished to the Authority Representative daily.

1.6 SHIPMENT AND STORAGE

Geotextile shall be shipped and maintained in a heavy-duty protective cover until it is placed. During all periods of shipment and storage, the geotextile shall be protected from direct sunlight, ultra-violet rays, temperatures greater than 140 degrees Fahrenheit, mud, dirt, and other

contaminants. Geotextiles delivered to the project site shall be clearly marked to show the brand name, type of geotextile, tensile strength, location and date of manufacture, and its length (machine direction) and width.

PART 2 PRODUCTS

2.1 GEOTEXTILE

The geotextile shall be a woven pervious sheet made with plastic yarn as defined by ASTM D 883. The geotextiles shall meet the requirements listed in Tables 1 and 2. Geotextile fibers shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of propylene, ethylene, ester, amide, or vinylidene-chloride, and shall contain stabilizers and/or inhibitors added to the base plastic, if necessary, to make the filaments resistant to deterioration due to ultra-violet exposure. The edges of the geotextile shall be selvedged.

TABLE 1
REQUIREMENTS* FOR SEPARATOR GEOTEXTILE

-- PROPERTY	TEST PROCEDURE	ACCEPTABLE VALUES
Grab Breaking Load	ASTM D 4632	200 pounds minimum in any principal direction
Seam Strength (**)	ASTM D 4884	100 pounds per inch minimum
Elongation at Break	ASTM D 4632	15 percent minimum in any principle direction
Apparent Opening Size (AOS)	ASTM D 4751	No finer than the U.S. Standard Sieve No. 70 and no coarser than the U.S. Standard Sieve No. 30
Permittivity	ASTM D 4491	0.35 per second minimum

(*) Value represents minimum average roll value of new geotextile received from the manufacturer or distributor.

(**) All of the samples shall yield test values that are greater than the minimum value that is specified.

PART 3 EXECUTION

3.1 GEOTEXTILE INSTALLATION

The geotextile shall be placed in the manner and at the locations shown on the drawings. The Contractor shall prepare the surface to receive the geotextile to insure that the surface is relatively smooth and free of obstructions, depressions, debris, soft or low density pockets of material, or stone which could damage the geotextile during placement. At the time of

installation, the geotextile shall be rejected if it has defects, rips, holes, flaws, deterioration or damage incurred during manufacture, transportation or storage. The geotextile shall be protected at all times during construction to insure that the geotextile's original chemical and physical properties are not changed. The work shall be scheduled so that all of the geotextile that is placed is covered with a layer of the specified material by the end of each workday. Failure to comply shall require replacement of geotextile. All wrinkles and sags shall be stretched out immediately before stone is placed on the geotextile. The geotextile shall be protected from damage during placement of stone. This shall be accomplished by limiting the height of drop to less than 1 foot, or the water surface, whichever is greater. In the event that this damages the geotextile, the stone shall be placed directly on the geotextile with zero height of drop. Before placement of stone, the Contractor shall demonstrate that the placement technique will not damage the geotextile. The Contractor shall replace any geotextile that is rejected or damaged at their own expense.

3.1 SEAMS AND LAPS

Seams or laps may be utilized to produce panels of geotextile large enough to cover the area shown on the drawings. Seams or laps shall be perpendicular to the centerline of the structure. Seams or laps shall not run parallel with the direction of the centerline.

3.1.1 Seams

All seams shall be sewn using thread meeting the requirements for plastic yarn specified in paragraph "GEOTEXTILE REQUIREMENTS." The sheets of geotextile shall be sewn at the factory or other approved location. Seam strengths shall meet the requirements of Table 1.

3.1.2 Laps

Geotextile panels placed along the dike centerline shall be overlapped a minimum of (2 feet) with the upstream panel on top of the downstream panel.

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CLEARING

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SECTION 31 11 00.00 12

CLEARING

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment, and materials, and performing all operations necessary for the clearing of the areas specified herein or indicated on the drawings, for the removal and disposal of all cleared materials, and for the filling of all holes caused by clearing operations, as specified herein.

1.2 MEASUREMENT AND PAYMENT

Measurement for clearing and vegetation removal will be made by the acre. Payment for clearing and vegetation removal will be made at the contract unit price per acre for "Clearing".

1.3 QUALITY CONTROL

The Contractor shall establish and maintain quality control for clearing operations to assure compliance with contract requirements, and maintain records of his/her quality control for all construction operations including but not limited to the following:

(1) Clearing. Station to station limits transverse clearing limits from applicable centerline; percentages of area complete; type of material.

(2) Disposition of Cleared Materials. Method and location of disposition; damage to timber or improvements which are not to be cleared.

The original and two copies of these records of inspections and tests, as well as the records of corrective action taken, shall be furnished the Authority Representative daily.

1.4 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 76	Acid Rain Nitrogen Oxides Emission Reduction Program

STATE OF LOUISIANA, AIR CONTROL COMMISSION (LACC)

Act 1964, No. 259	(Title 40, Section 2201) Acid Rain Nitrogen Oxides Emission Reduction Program

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Perform clearing as necessary to remove vegetation and objectionable material from the site. Clear the site within the limits indicated, and remove cleared materials and debris from the site.

3.2 CLEARING

3.2.1 General

Clearing, unless otherwise specified, shall consist of the complete removal above the ground surface of all stumps, down timber snags, brush, vegetation, loose stone, abandoned structures, fencing, and similar debris. Growth standing in water in areas that are not drained in accordance with Section 31 24 00.00 12 EMBANKMENT, paragraph Drainage may be cut off so as not to protrude more than 12 inches above the existing water surfaces.

3.2.2 Vegetation

Vegetation to be removed shall consist of crops, grass, bushes, and weeds. Close-growing grass and other vegetation shall be removed from areas to receive embankment or road fill to provide a complete bare earth surface immediately prior to foundation preparation. Acceptance of the vegetation removal operation shall precede the initiation of foundation preparation in the area from which vegetation has been removed.

3.2.3 Areas to be Cleared

3.2.3.1 General

The entire area to be occupied by the embankment, and berm together with strips 5-feet wide contiguous thereto, road ramps, above ground structures, riprap, traverses, ditches, channels, or depressions outside the limits of the embankment or berm but within the right-of-way shall be cleared.

3.3 DISPOSAL OF DEBRIS

3.3.1 General

Disposal of removed materials, waste, trash, and debris shall be in accordance with all applicable Federal, State and local laws and ordinances and shall be conducted in a safe, acceptable manner.

3.3.2 Burying

Burying of trash and debris on the site will not be permitted.

3.3.3 Removal From Site of Work

The Contractor shall remove all of the debris from the site of the work. Such disposal shall comply with all applicable Federal, State, and Local laws. The Contractor shall, at his/her option, either retain for his/her

own use or dispose of by sale or otherwise, such materials of value. Such materials shall be removed from the site of the work before the date of completion of the work.

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3.6 HAULING

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SECTION 31 23 00.00 12

EXCAVATION

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment, and materials, and performing all operations necessary for stockpiling materials and for excavation of existing stone access roads, removal of material from embankment foundations, and all other excavation incidental to the construction of embankments as specified herein or as shown on the drawings.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D 698	(2007e1) Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/cu. ft. (600 kN-m/cu. m.))
ASTM D 1140	(2000; R 2006) Amount of Material in Soils Finer than the No. 200 (75-micrometer) Sieve
ASTM D 2216	(2005) Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D 2487	(2006e1) Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2974	(2007a) Moisture, Ash, and Organic Matter of Peat and Other Organic Soils
ASTM D 4318	(2005) Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D 4643	(2008) Determination of Water (Moisture) Content of Soil by the Microwave Oven Method
ASTM E 1527	Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

ASTM E 2247	(2005) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property

1.3 MEASUREMENT

1.3.1 Excavation

No separate measurement will be made for excavation required by this section, except materials excavated in connection with excavation of stone access roads.

1.3.2 Excavation of Stone Access Roads.

Materials excavated in connection with removal of existing stone access roads will be measured for payment by the cubic yard, and the quantities will be determined by the average end area method. The basis of measurement will be a survey of the area prior to degrading and the theoretical excavation lines and grades as shown on the drawings after completion of the degrading.

1.4 PAYMENT

1.4.1 Excavation

No separate payment will be made for excavation required by this section. Payment shall be included in the contract prices for the items of which the work is incidental.

1.4.2 Excavation of Stone Access Roads

Payment for excavation of stone access roads will be made by the contract price per cubic yard for "Excavation of Stone Access Roads". Price and payment shall constitute full compensation for furnishing all plant, labor, equipment, and material and performing all operations necessary for excavation and stockpile of material equal to the amount excavated.

1.5 QUALITY CONTROL

The Contractor shall establish and maintain quality control for excavation operations to assure compliance with contract requirements, and maintain records of its quality control for all construction operations including but not limited to the following:

(1) Borrow Areas. Location, station limits, actual and allowable depths, drainage, and substitute borrow areas. Before and after excavation, the Contractor shall perform, plot and submit compliance cross sections to the Authority Representative at a maximum of 300 feet intervals within the borrow areas with the theoretical sections superimposed thereon.

(2) Disposition of Materials. Testing Program, Location of tested materials (station and lift), and Applicable Compaction Curves.

(3) Ditches. Locations grade and cross-section.

(4) Traverses. Locations and dimensions.

(5) Retaining Dikes. Check elevations and wastewater.

(6) Quantity Surveys. Accuracy and timeliness.

(7) Salinity Testing. Location of tested materials and salinity results.

The original and two (2) copies of these records of inspections and tests, as well as the records of corrective action taken, shall be furnished the Authority Representative daily.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXCAVATION IN BORROW AREAS

3.1.1 General

The Contractor shall submit a written statement to the Authority not later than 10 days after receipt of Notice to Proceed of its intention to use the specified Contractor-furnished borrow area.

3.1.2 Borrow Areas with High Salinity Content Soils

For borrow areas having a portion of the material classified as being high in salinity content, greater than 1,500 ppm, the Contractor shall use the high salinity content soil as core material which shall be encapsulated with a minimum of 12 inches (loose measure) of suitable material with total salts content less than 1,500 ppm reserved from the borrow area prior to compaction and fertilizing, seeding and mulching. For borrow areas which contain all high salinity content soils, the Contractor shall obtain the encapsulating material from another Contractor-furnished borrow source with acceptable salinity levels. Blending, washing or leaching material in order to reduce salinity will not be permitted within the levee R/W. Any embankment material for the levee cap (top 12 inches) exceeding a salinity of 1,500 ppm will be removed at the contractor's expense. Salinity testing shall be in accordance with USACE MVN Soil Electronic Conductivity (EC) and Total Soluble Salt Analysis included at the end of this section.

3.2 DISPOSITION OF MATERIALS

3.2.1 Material Used for Embankment or Fill

Excavated materials for embankment fill shall be placed in accordance with Section 31 24 00.00 12 EMBANKMENT.

3.2.2 Stone Access Roads

Materials removed as part of the temporary stone access road or construction staging area excavation shall be disposed of in accordance with federal, state and local regulations.

3.3 EXCAVATION IN OTHER AREAS

3.3.1 General

Excavation from other areas shall consist of removal of material in preparing the embankment and berm foundations to the lines and grades shown on the drawings. Care shall be exercised by the Contractor in excavating to the lines and grades shown and in removing materials so as not to excavate below the grades specified or depth indicated. Excavation below the lines and grades specified or the depth indicated shall be backfilled by the Contractor at its expense. Such backfill shall be brought to grade with material with each layer placed and compacted as specified in Section 31 24 00.00 12 EMBANKMENT, paragraph Compacted Fill. Excavated materials shall be disposed of as specified in paragraph "DISPOSITION OF MATERIALS”

3.4 EXCAVATION OF STONE ACCESS ROADS

As shown on the plans, the temporary stone access roads and construction staging areas shall be degraded to the original pre-construction elevations. Material excavated from the temporary access roads and construction staging areas shall be hauled off site to a location chosen by the Contractor. Material excavated shall be disposed of as specified in paragraph “DISPOSITION OF MATERIALS.”

3.5 CONTRACTOR-FURNISHED BORROW AREAS

3.5.1 General

The Contractor shall submit a written statement to the Authority within fifteen (15) days after contract award on their intention to provide a Contractor-furnished borrow source from paragraph 3.5.6 “Clay Sources”. The statement shall include the proposed site name, a description of the location, and a vicinity map. The Contractor shall ensure that any Contractor-furnished borrow area submitted has all applicable environmental documentation acquired, current, and up-to-date, as described in paragraph "Submittal Package Requirements in Detail". The Contractor must utilize a borrow source that is included in paragraph 3.5.6 “Clay Sources”.

3.5.2 Time Extensions

No time extension to the contract completion date will be granted to the Contractor for delays incurred in obtaining Contractor-furnished borrow areas. The Contractor shall be solely responsible for any and all damages, claims for damages, and liability of any nature whatsoever arising from or growing out of the use of borrow areas other than those furnished by the Authority in paragraph 3.5.6 “Clay Sources”

3.5.3 Approval

Approval of the location and dimensions of the Contractor-furnished borrow area shall neither relieve the Contractor from its obligation to furnish satisfactory material to the project nor commit the Authority to the acceptance of the responsibility for the character, quantity, or availability of material in Contractor-furnished borrow areas.

3.5.4 Submittal Package Requirements

The Contractor in a single, complete package shall submit the following information for its proposed Contractor-furnished borrow area. All documentation presented for the proposed borrow source shall be current and up-to-date. The submittal of incomplete, out of date, or insufficient documentation may result in the Contractor being denied the use of the proposed borrow source. The Contractor shall allow a minimum of ten (10) days, after the receipt of the package, for the Authority's review, processing, and approval. The Contractor must utilize a clay source listed in the paragraph 3.5.6 “Clay Sources” for their Contractor-furnished borrow material.

(1) Agreement to Excavate Borrow Material.

(2) Maps as follows:

a) Location and Direction map.

b) Topographic map(s) with scale of 1:24,000.

c) Layout map with dimensions and property boundary defined by latitude and longitude.

d) Soil boring location map.

(3) Jurisdictional Wetlands Determination from the USACE.

(4) Coastal Zone Management (CZM) Coastal Use Permit (CUP).

(5) Threatened & Endangered Species (T&E) concurrence from the U.S. Fish and Wildlife Service.

(6) Phase I Cultural Resources Survey

(7) Phase I Environmental Site Assessment.

(8) Geotechnical report.

(9) Borrow Area Agronomy Report.

(10) Borrow Area Management Plan

(11) Mitigation Protection Plan

(12) Zoning classification

(13) Environmental Protection Plan

(14) Louisiana Department of Transportation and Development (LADOTD) permits or approvals

3.5.5 Submittal Package Requirements in Detail

3.5.5.1 Agreement to Excavate Borrow Material

An Agreement to Excavate Borrow Material signed by the owner(s) of the borrow material that covers the contract duration shall be included in the package. If the proposed clay source Point-of-Contact (POC) is not the owner, then the Contractor furnished package should include a document signed by the owner(s) stating that the POC is acting as an agent of the owner(s) and has the right to represent the owner(s) in all Contractor-furnished efforts. In the event the POC is unable to obtain the signature of each owner, then the POC must submit a letter stating the name, address, and phone number of each owner and that the POC has the authority of the owner(s) to represent the owner(s) in all Contractor-furnished efforts.

3.5.5.2 Maps

The following maps shall be provided:

(1) A map of the general area giving detailed instructions on how to get to the Contractor-furnished borrow area from the nearest major highway.

(2) A topographic map(s) (quadrangle) with a scale of 1:24,000 with the location of the borrow area superimposed. The map should be zoomed out enough to show the nearest city or town.

(3) A layout map of the borrow area showing the dimensions of the proposed excavation, locations of soil borings, and latitude/longitude points to reference property boundaries. The map shall show the location and dimensions of any haul road that exists or is to be constructed to help the Contractor in its hauling operation. The map shall also show the location and dimensions of any protection dikes which will help the Contractor drain and keep the borrow area dry.

3.5.5.3 Wetlands Determination

Package must include U.S. Army Corps of Engineers (USACE) Jurisdictional Wetland Determination (JD) letter and map. The Contractor shall avoid jurisdictional wetlands, with an adequate buffer. The Corps is currently avoiding impacts to jurisdictional wetlands, as such Contractors are advised that sites with jurisdictional wetlands present that would be impacted by the Contractors borrow actions are to be avoided. If the Contractors plan includes impacts to jurisdictional wetlands due to an unrelated construction activity, a USACE Section 404 permit and/or Section 10 permit will be required. A Section 10/404 Permit does not constitute full environmental compliance for potential use as an Hurricane & Storm Damage Risk Reduction System (HSDRRS) borrow area. The landowner must still submit all other required environmental documentation, as detailed in paragraph "Submittal Package Requirements in Detail", to be considered for approval for any HSDRRS borrow related activities including, but not limited to, excavation, transportation, staging, stockpiling and processing. A JD is valid, and considered current for five (5) years from the date of issuance.

3.5.5.4 Coastal Zone Management (CZM)

Package must include a Coastal Use Permit (CUP) Application, and a Letter of No Objection (LNO) or CUP from the Louisiana Department of

Natural Resources for borrow areas in Louisiana, or the respective state agency for other states. A CUP Application, and CUP or LNO from the local agency must be provided when the state decides that it is a matter of Local Concern. A CUP is valid, and is considered current usually for two (2) years from the date of issuance.

3.5.5.5 Threatened & Endangered Species (T&E)

Package must include a consultant's report and a concurrence letter of "No Effect on T&E Species" from the U.S. Fish & Wildlife Service. The consultant's report must include a map of the studied area with the study area boundary defined by x-y coordinate system. T&E concurrence is valid, and considered current for one (1) year from the date of issuance.

3.5.5.6 Cultural Resource Report

Package must include seven (7) bound copies of a Phase I Cultural Resource Survey prepared by a professional cultural resource management (CRM) company that has staff who meet the Secretary of the Interior's Professional Qualifications Standards (http://www.nps.gov/history/local-law/arch_stnds_9.htm). The report must include a map of the studied area with the study area boundary defined by x-y coordinate system.

3.5.5.7 Environmental Site Assessment

Package must include an Environmental Site Assessment (ESA) that shows a low risk of encountering Recognized Environmental Conditions (REC). The ESA must conform to ASTM E 1527 or ASTM E 2247 (if applicable) standards. The ESA must include a map of the studied area with the study area boundary defined by x-y coordinate system. An ESA is valid, and considered current for six (6) months from the date of the report.

3.5.5.8 Soil Boring Analysis

Package must include a Geotechnical Report stamped and signed by a licensed civil engineer in the State of Louisiana, with a specialization in geotechnical engineering, certifying that the proposed source contains suitable material meeting the specifications outlined below.

(1) The Geotechnical Report must consist of a summary and conclusion section in the main body of the report with any supporting data attached separately. The licensed engineer shall determine the sub-surface investigations required. These investigations should include but are not limited to continuous soil borings and test pits. Cone Penetrometer tests may also be included to supplement the physical samples and lab testing provided.

(2) Investigations shall be spaced according to the geotechnical engineer's sub-surface evaluation and be representative of the entire proposed source. The licensed engineer's test plan must provide a comprehensive sampling to at least five (5) feet below the bottom of the proposed excavation.

(3) All soil samples must be classified in accordance with the Unified Soil Classification system. See below for required soil testing. The supporting data attached to the geotechnical report

shall be comprehensive and include as a minimum all field logs, soil sampling and testing results, and a detailed investigation location map with the location of the potential borrow source and all investigation locations superimposed. The soil investigation locations must include latitudes and longitudes for plotting purposes.

3.5.5.9 Laboratory Tests

The following laboratory tests must be performed:

(1) Soil classification shall be performed in accordance with the Unified Soil Classification System and ASTM D 2487.

(2) Atterberg Limits Test shall be performed in accordance with ASTM D 4318.

(3) Determination of moisture content shall be performed in accordance with ASTM D 2216 or ASTM D 4643.

(4) Determination of organic content shall be performed in accordance with ASTM D 2974, Method C.

(5) Control compaction curves shall be established in accordance with ASTM D 698 (Standard Proctor Compaction Tests). A control compaction curve is required for each soil type from each source. Where material is blended and stockpiled, a control compaction curves will be required for each resulting blend of material and will be utilized in lieu of those required for the "unblended materials".

(6) Sand Content shall be determined by - #200 sieve washing in accordance with ASTM D 1140.

3.5.5.10 Test Procedures for Borings

The testing procedure for borings shall be as follows:

(1) A moisture content determination shall be made and recorded on all samples classified as (CH), (CL), and (ML) at no less than 2 foot intervals.

(2) For (CH), (CL), and (ML) soils, Atterberg Limits and Organic Content Testing (ASTM D 2974, Method C), is required every 5 feet (minimum).

(3) Samples with moisture contents at 70% or higher or having a Liquid Limit of 70 or higher must be tested for organic content for that sample as well as for a sample 2 feet above and 2 feet below that sample.

(4) Sand content tests will be required for samples that classify as CL (with a PI greater than 10) and for all clay samples (CH and CL) with greater than 10% coarse grain materials estimated by visual classification for 2 or more consecutive feet.

(5) Sand content tests shall be limited to one test every 5 feet of sampling and shall conform to ASTM D 1140 (#200 sieve required).

(6) Sand content tests will be required for samples that classify as a ML, but limited to one test every 5 feet of sampling.

If a borrow site is within 1,500 feet of the Mississippi River Levee (MRL) or within 300 feet of a Hurricane Protection Levee (HPL), a permit from the local sponsor MUST be included.

3.5.5.11 Borrow Area Agronomy Report

The Contractor-furnished borrow area material shall be tested for levels of salinity content which could impede the satisfactory establishment of grass. The salinity of the soil shall be less than 1500ppm in order to be acceptable. Blending or washing embankment material at the levee to meet salinity requirements is not permitted. For each soil boring drilled for geotechnical analysis, a representative soil sample, taken at each 2.5 feet of depth of the boring or change in strata shall be tested for salinity content. Two standardized tests shall be performed by a soil testing lab including a pH test and a Storm (or Flood) Test which includes, at a minimum: Calcium, Magnesium, Sodium, Sulfur, Chlorides, Conductivity, Total Soluble Salts, and Sodium Absorption Ratio. All costs associated with the testing at a Contractor furnished borrow area shall be borne by the Contractor. Salinity testing shall be in accordance with USACE MVN Soil Electronic Conductivity (EC) and Total Soluble Salt Analysis included at the end of this section.

3.5.5.12 Borrow Area Management Plan

The Contractor shall provide the Authority a plan for clearing, stripping, and excavating materials from the proposed Contractor-furnished borrow area. In its plan, the Contractor shall show work areas, stockpile areas, etc, all within its leased or owned property boundaries. The Contractor shall not work or move material outside the boundaries of the approved limits of it's borrow area. The Contractor shall indicate in writing and show on its layout plans details of the following:

(1) A stockpile plan for cleared and stripped material and debris to include disposal areas.

(2) The locations for disposal of wasted material discovered in the borrow area. Location of any haul roads constructed to help the Contractor in its hauling operations.

(3) A plan for stockpiling embankment material before it is transported to the project site to include locations, stockpile heights, slopes, and limits.

(4) The method and route for transporting the excavated material from the Contractor-furnished borrow area to the project site.

(5) The proposed methods for draining and keeping dry during excavation the borrow area excavated under this contract, including any protection dikes constructed to alleviate drainage problems.

(6) A complete list of excavation and transportation equipment planned for use in its operations.

(7) The Contractor's proposed sequence of excavating the borrow area showing starting and ending work locations.

(8) A list of permits required and the issuing office.

3.5.5.13 Mitigation Requirements

The package must include a written plan and map that describes and shows any areas subject to laws or regulations (Clean Water Act Section 404, Rivers and Harbors Act Section 10, National Historical Preservation Act, Section 906 of WRDA 1986, HTRW, etc.) that hold jurisdiction within the proposed borrow area. Borrow area is defined to include access routes, loading and unloading facilities, staging areas, etc. Plan and maps must clearly show areas/resources being avoided, areas where any impacts were minimized, and areas where it has been determined that impacts are unavoidable. Resources include but are not limited to areas of cultural interest, bottomland hardwood forest, wetlands subject Section 404 of the Clean Water Act, Threatened and Endangered species including any habitat deemed critical by the U.S. Fish and Wildlife Service, and areas found to be hazardous, toxic, or to contain radioactive waste. The U.S. Army Corps of Engineers New Orleans District (CEMVN) Environmental Team Coordinator will determine the consequences of a proposed action on any resources identified on the property in question. For mitigation related to unavoidable impacts to wetlands or forested area as written proof shall constitute a letter from a mitigation bank showing compensatory mitigation has been completed as "in-kind" in the hydraulic basin. Contractor-furnished borrow shall provide written proof of the required mitigation necessary has been accomplished. Notice to Proceed will not be granted until this proof is provided to the Authority. Written proof shall constitute a letter from a mitigation bank showing compensatory mitigation has been completed as "in-kind" in the hydraulic basin.

3.5.5.14 Zoning Classification

Written evidence that the property intended for use as a Contractor-furnished borrow area contains the proper zoning classification that will allow the Contractor to excavate the property and use it as a borrow area. This evidence shall consist of a letter from the local land zoning office stating the zoning classification of the proposed Contractor-furnished borrow area.

3.5.6 Clay Sources

On the basis of information and data available to the Authority, the lands containing the clay sources from the sites designated below have been approved for all environmental concerns. The borrow materials from the listed sites shall be mined. The designated sites, below, may be capable of producing the quality of clay material meeting the requirements set forth in SECTION 31 24 00.00 12, paragraph entitled Materials. Borrow materials from lands other than from the designated sites have not been cleared and the material quality not validated. In all cases, the Contractor remains responsible for obtaining all local and state permits.

Site Name	Point of Contact	Contact Information	Location

River Birch, Phase 1	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006	Avondale, LA
River Birch, Phase 2	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006	Avondale, LA
3C Riverside Properties	H. Ray Coleman	Office: 901-309-5844 raycoleman@earthlink.net	St. Charles Parish, LA
Willow Bend	Hensley Lee	Office: 601-799-1335 Cell: 601-273-0404 hrlee81@hotmail.com	St. John the Baptist Parish, LA
River Birch-South Kenner Rd.	Vic Culpepper	Office: 504-436-1288 Cell: 504-915-6006 vculpepper@riverbirchlandfill.com	Avondale, LA
Willow Bend, Phase 2	Hensley Lee	Office: 601-799-1335 Cell: 601-273-0404 hrlee81@hotmail.com	St. John the Baptist Parish, LA
3C Riverside Properties, Phase 3	H. Ray Coleman	Office: 901-309-5844 raycoleman@earthlink.net	St. Charles Parish, LA

3.6 HAULING

All excavated material to be hauled to the site from the borrow source, or to be removed from the site, including debris, shall be hauled in watertight trucks with secured binders on tailgates to the place of destination. The route for trucks carrying material to and from the job site, and to and from the borrow area shall avoid residential streets, and shall be approved by the Authority. If the Contractor decides to modify or construct any new roads, they must be submitted to the Authority for approval. Trucks shall not spill or track mud on public roads. The Contractor shall take immediate action to clean up any material spilled on the roads without notification from the Authority Representative. Failure by the Contractor to satisfactorily clean public roads used for the hauling operation shall result in the suspension of hauling operations until such roads are cleaned to the satisfaction of the Authority Representative.

USACE MVN Soil Electronic Conductivity (EC) and Total Soluble Salt Analysis:

The following test method shall be used for determining the Total Soluble Salt (Total Salinity) of Embankment soils. This method shall be followed when testing embankment soil salinity levels.

A. Sampling; Sampling shall consist of one 12,500 gram composite sample per 1,000 linear feet per lift. A Composite soil sample is defined as 5 separate representative 2,500 gram samples taken randomly at relatively evenly spaced intervals within the 1,000 linear foot. A lift on any one side of the levee will be considered one lift. The locations of the samples shall be as directed by the Contracting Officer. When a composite soil sample is collected, it should be handled in accordance with ASTM D 4220, Group B Standard Practices for Preserving and Transporting Soil Samples.

As directed by the Contracting Officer, when samples are to be split for replicate testing, the entire composite sample shall be processed over a No.4 (4.75 mm) sieve. The material passing the No.4 sieve shall be thoroughly mixed and separated in accordance with ASTM C 702 Standard Practice for Reducing Samples of Aggregate to Testing Size.

B. Sample Preparation; Composite soil samples are to be air dried at a temperature not to exceed 140° F for a minimum of 24 hours. After the sample is air dried, process the entire sample over a No.4 sieve. Material retained on the No.4 sieve will be discarded. The remaining sample shall be thoroughly mixed and reduced for testing in accordance with ASTM C 702 Standard Practice for Reducing Samples of Aggregate to Testing Size.

C. Procedure; To determine soil EC, obtain a representative portion from the reduced sample sufficient to provide 150 to 200 g of material passing the No. 10 (2 mm) sieve. Collect a representative 20 gram sample from the sieved air-dried material and mix with 40 mL deionized water in a 125 mL Erlenmeyer flask. The container is sealed and the mixture is agitated for 1 hour in a mechanical shaker. The mixture is filtered through a Whatman 42 filter paper. EC (dS/m) of the filtrate is determined immediately using a standard conductivity meter. Follow manufacture's direction for standard conductivity meter operations and temperature corrections.

D. Reporting; When this test method is followed the directly-measured EC is converted to saturated extract-equivalent EC by multiplying by 2. Total soluble salts (TSS) concentration in mg/L is calculated by multiplying EC (dS/m) by 640 for EC readings <5.0 dS/m or by 800 for EC readings >5.0 dS/m. (Rhoades, 1996)

The report shall include at a minimum;

1. All sample identifications documented during sampling that at a minimum include, sample date, received date, test/sample number, location of composite sample (GPS, station, lift, elevation, offset)
2. USCS visual description
3. Make/Model and Serial# of conductivity meter.
4. Any deviations from this test method.
5. The Soil Electronic Conductivity (EC) shall be reported in decisiemens per metre (dS/m)
6. Total Soluble Salt shall be reported as Total Salinity in parts per million (ppm)

-- End of Section --

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SECTION 31 24 00.00 12

EMBANKMENT

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment, and materials, except as otherwise specified in Section 31 23 00.00 12 EXCAVATION, and performing all operations in connection with foundation preparation and construction of embankments, enlargement of existing levee, and other incidental earthwork as may be necessary to complete the embankments, as shown on the drawings, and as hereinafter specified.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

MVN Construction Control Manual for FIELD AND LABORATORY DETERMINATION OF NON-SOIL VOLUME FOR LEVEE FILL

ASTM INTERNATIONAL (ASTM)

ASTM D 698	(2007e1) Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/cu. ft. (600 kN-m/cu. m.))
ASTM D 1140	(2000) Amount of Material in Soils Finer than the No. 200 (75-micrometer) Sieve
ASTM D 1556	(2000) Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 2216	(2005) Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D 2487	(2006) Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2974	(2007a) Moisture, Ash, and Organic Matter of Peat and Other Organic Soils
ASTM D 4318	(2005) Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D 4643	(2000) Determination of Water (Moisture) Content of Soil by the

	Microwave Oven Method
ASTM E 329	(2005b) Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction
ASTM D 6938	(2008a) In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

1.3 MEASUREMENT

1.3.1 Embankment

Unless otherwise specified, compacted fill, required fill and backfill materials of any description specified in this section will be measured for payment by the cubic yard, and quantities will be determined by the average end area method. The basis for the measurement will be cross sections of the areas to be filled taken prior to clearing, grubbing, and vegetation removal operations and the theoretical design sections. Embankment not constructed to design grade and section, including allowable tolerance as indicated on the Contractor's compliance survey will not be accepted.

1.3.2 Settlement

Measurement of additional fill material placed in each settlement measurement range shown on the drawings by reason of foundation settlement, will be based on measurements on the respective settlement gage installed as specified in paragraph "Additional Fill" and will be determined as follows:

(1) The settlement measured at each settlement gage will be considered to apply to the foundation area throughout the length of the settlement ranges specified herein where the gage is located. In the event that embankment over a settlement gage is constructed to a height in excess of the specified design construction lines plus the tolerance permitted under paragraph "GRADE TOLERANCES". No measurement of settlement will be made and will result in forfeiture of any payment that may be due the Contractor for the settlement range applying to that settlement gage. Further, in instances where settlement plates have been set and cannot be found after completion of the embankment, no measurement for settlement will be made, and any payment which may be due the Contractor for the settlement range applicable to that settlement gage will be forfeited.

(2) The foundation settlement under the embankment at each transverse cross section within a settlement range will be considered to vary uniformly between break points in the cross section. At each breakpoint, the settlement allowance will be based upon the proportion that the specified fill height at the break point bears to the specified fill height at the settlement gage, in accordance with the following formula: S = h X sm/hm, where S = settlement to be computed at a break point; h = specified gross fill height at S; sm = measured or adjusted settlement gage; hm = specified gross fill height above settlement gage. Except as provided above and in

paragraph "Failures," no measurement for payment for additional fill materials placed by reason of foundation settlement will be made. The foundation settlement under the levee side slopes at each transverse cross section within a settlement measurement range will be considered to vary uniformly from zero settlement at the levee toes to a maximum settlement, equal to the amount of settlement measured on the respective settlement gage, at points under the tops of the slopes. Except as provided above and in paragraph "Failures," no measurement for payment for additional materials placed by reason of foundation settlement will be made.

(3) The Contractor will not be compensated for foundation settlement caused by moisture control operations performed on the existing berms. All initial settlement gage readings shall be taken prior to moisture control operations on the existing berms. In instances where the Contractor performs moisture control after the initial gage readings were taken, the Contractor shall perform settlement gage readings prior to commencing moisture control operations in the area to receive compensation for settlement in that area and if no measurement is taken for settlement any payment which may be due the Contractor for the settlement range applicable to that settlement gage will be forfeited. The Contractor may seek compensation for settlement after all moisture control operations have terminated and new settlement gage readings are performed in the area.

1.3.3 Embankment Materials Testing

No separate measurement will be made for testing regardless of the location (i.e., in the borrow area, stockpile area, or in-place) of the material.

1.4 PAYMENT

1.4.1 Embankment

Payment for all compacted fill material placed as required in embankments, fill and backfill during construction, will be made at the applicable contract unit price per cubic yard for "Embankment, Compacted Fill". Price and payment shall constitute full compensation for furnishing all plant, labor, testing, employ of professional engineering services, equipment and material (except earth material), and performing all operations necessary for excavation, all testing, hauling, foundation preparation, material processing for moisture control and blending, placing and compacting the material and other incidental work required to complete the embankment or fill.

1.4.2 Settlement Gages

The cost of furnishing, installing, and maintaining during embankment construction the settlement gages specified herein, if used, including measurements required to be made by the Contractor shall be at the expense of the Contractor. No separate payment will be made for compaction of fills around and over the settlement gages or for interference with the Contractor's operations resulting from the settlement gage installations.

1.4.3 Forfeiture of Payment for Settlement of Foundation

Failure to utilize settlement gages in strict accordance with the specifications and drawings will result in total forfeiture of any payment that may otherwise be due the Contractor for settlement of the foundation. In each case of 1) failure to recover any settlement gage, 2) construction of embankment over a settlement gage in excess of specified construction lines plus the tolerance permitted under paragraph "GRADE TOLERANCES," or 3) failure to comply with the 72 hour requirement in paragraph "Additional Fill," for determining gage elevations, payment will be totally forfeited for the reach attributable to each gage so affected.

1.4.4 Embankment Materials Testing

No separate payment will be made for testing. Testing shall be including in the contract unit prices for which the work is incidental thereto.

1.5 QUALITY CONTROL

1.5.1 General

The Contractor shall establish and maintain quality control for embankment construction operations to assure compliance with contract requirements, and maintain records of its quality control for all construction operations including but not limited to the following:

(1) Equipment. Type, size, and suitability for construction of the prescribed work.

(2) Foundation Preparation. Breaking surface in advance of embankment construction, and during fill placement when necessary, drainage of foundation and partially completed fill.

(3) Materials. Applicable tests, location of material testing sites.

(4) Construction. Layout, maintaining existing drainage, moisture control, thickness of layers, spreading and compacting.

(5) Grade and Cross Section. Crown width, crown slope, side slopes, and grades.

(6) Roads. Location of temporary and permanent roads to fields or buildings, location and placement of fill in accordance with specified dimensions and grades.

(7) Grade Tolerances. Check fills to determine if placement conforms to prescribed grade and cross section.

(8) Settlement of Foundation. Location of settlement gages established or measurements taken to determine settlement, location of sudden failures.

(9) It is intended that borrow material shall be placed in the embankment and berm at or near optimum moisture content.

(10) Control Testing.

The Contractor shall perform all control testing such as soil classification, moisture content, control compaction curves, organic content, sand content and in-place density. The results of all tests shall be reported to the Authority Representative within 24 hours of sampling, except for the organic test results, which shall be reported within 48 hours of sampling. The Contractor's QC test results of in-place compaction, soil classification, moisture content, sand content, organic content, and compaction curves shall be provided to the Authority Representative on a regular basis throughout the contract, but no later than 5 days of receiving results. Testing shall be performed by an approved testing agency, organization, or field laboratory including on-site testing labs operated by QC personnel. No additional payment will be made for control testing required in this paragraph. All costs in connection therewith shall be included in the contract unit price for "Embankment, In Place". Documentation of sampling locations for the following tests shall be clearly defined by levee station and offset and also by lift number or elevation. As a minimum, the following tests are required:

1. Soil Classification Tests. Determination of soil classification shall be in accordance with ASTM D 2487. Atterberg Limits Test required for soil classification shall be performed in accordance with ASTM D 4318. One Atterberg test shall be obtained from the sample material used for each control compaction curve and one shall be obtained from the sample material used for each in-place density test. If the Nuclear Method is used, the material to be tested shall come from within a radius of 12 inches of the center of the in-place density test site.

2. Control Compaction Curves - Compacted Fills. Control compaction curves shall be established in accordance with ASTM D 698 (Standard Proctor Density Tests). Two control compaction curves will be required for each type of material from each source. Where construction operations result in blending of several types of material prior to or during fill placement within the embankment design sections, two control compaction curves will be required for each resulting blend of material and will be utilized in lieu of those required for the "unblended materials." The average of the two tests shall be the controlling optimum moisture content and maximum dry density.

3. In-Place Density Tests. In-place density tests for compacted fill material shall be made in accordance with ASTM D 2922 (Nuclear Method) or ASTM D 1556(Sand Cone Method), and shall be made at a minimum frequency of one density test per lift per 1500 cubic yards of compacted fill placed in the levee per lift, but not less than one density test per 500 feet per lift. At least one test shall be performed in any shift that compacted fill is placed. A lift on any one side of the existing embankment will be considered one lift. The location of the test shall be representative of the area being tested or as directed by the Authority Representative. For each in-place density test, the Contractor shall determine the percentage of ASTM D 698 maximum dry density and the deviation from optimum water content in percentage points (plus or minus), using the control compaction curves for the same type of material. The appropriate control

compaction curve shall be selected by using the one-point compaction test when available or soil classification test.

If the Nuclear Method is selected for field density testing, the dry density shall be determined by using the value of wet density reported by the nuclear density equipment and the value of moisture content obtained from ASTM D 2216 or ASTM D 4643. The Contractor shall not use the value of dry density reported by the nuclear density equipment.

The Sand-Cone Method shall be used to confirm the accuracy of the Nuclear Method. This can be accomplished by performing an initial comparison test of the two methods at the start of construction. If the Nuclear Method wet density is within 3 percent of the Sand Cone Method, no correction of the Nuclear Method wet density will be required and the testing may continue with the Nuclear Method. The Nuclear Method wet density shall be verified throughout the project at a rate of one Sand-Cone test for every ten nuclear tests thereafter. If the variance at any time exceeds 3 percent, a correction factor will be required to be determined prior to any further testing. For comparison purposes, the nuclear and sand-cone wet densities should represent the same layer thickness within the testing area selected. When a nuclear density result is in doubt, the sand-cone density test shall be used for acceptance.

The correction factor shall be determined by conducting ten comparison tests (five ASTM D 6938 and five ASTM D 1556) and calculating the average difference (correction) for each soil type encountered. The developed correction shall be used for adjusting the nuclear wet density readings. The results of the in-place density, moisture content, and one point compaction test shall be reported to the Authority Representative's by the end of the working day following the in-place density test.

4. One-Point Compaction Test. As a minimum, the Contractor shall perform a one-point compaction test at every fifth (5th) in-place density test. If the Nuclear Method is used for in-place testing, every other one-point compaction test shall be performed at the sand-cone verification test location on a sample from the same material location as the in-place density test in accordance with ASTM D 698. The material shall be compacted at the same water content as the field test if it is estimated to be on the dry side of optimum laboratory water content. If the field water content is estimated to be above the optimum water content, the corresponding lab sample shall be dried to an estimated water content which is not more than 3 percent dry of the actual optimum water content. The water content/dry density point on the one-point compaction test shall be plotted on the family of curves for the same soil type from the same borrow source. The compaction control curve is estimated by projecting a curve that is parallel to the adjacent compaction curves. The optimum water content and maximum dry density shall be estimated from the control compaction curve. If the laboratory data plots outside of the available family of compaction curves, the Contractor shall perform a complete compaction test in accordance with ASTM D 698.

5. Moisture Content Tests. Moisture content tests at each density test location shall be taken to assure compliance with requirements for fill placement within the design sections as specified in paragraph "Moisture Control." Determination of moisture content shall be performed in accordance with ASTM D 2216 or ASTM D 4643. Determination of moisture content shall not be performed in accordance with ASTM D 6938(Nuclear Method).

6. In-Place Organic Content Tests. Organic content tests shall be taken at each in-place density test location. Limits of organic content are specified in paragraph MATERIALS. Determination of organic content shall be performed in accordance with ASTM D 2974, Method C.

7. Sand Content Tests. One sand content test shall be obtained from the sample material used for each control compaction curve and one shall be obtained from the sample material used for each in-place density test. Limits of sand content are specified in paragraph MATERIALS. Determination of sand content shall be in accordance with ASTM D 1140.

8. Additional Test. In addition to the above frequency of tests, additional test are required as follows:

a. Where the Authority's Representative has reason to doubt the adequacy of the compaction, organic content, or moisture control.

b. Where the Contractor is concentrating fill operations over a relatively small area.

c. When embankment materials change substantially, the Authority Representative may direct additional testing.

d. Where non-traditional compaction procedures/equipment are being used.

e. When areas are found not meeting the specified in-place density, Atterberg Limits, sand content, and/or in-place organic content requirements, the Contractor shall retest at no additional cost after corrective measures have been applied.

(11) Compliance Surveys. The Contractor shall submit plotted cross sections at intervals and locations corresponding to the Authority's original survey. The primary, secondary, and temporary benchmarks used shall be listed on each compliance survey. Upon completion of suitable reaches of embankment, the Contractor shall perform, plot, and submit compliance cross section surveys at a maximum of 100-foot intervals and all P.I. 's, curve P.C.'s, P.T.'s, levee transitions, and breakpoints. All compliance surveys of levees that are adjacent to other structures (ex. floodwall, sheet pile) shall include the transitions to those structures in the surveys, whether the Contractor is responsible for the transition or not. The limit of the transitions shall be the end of any armoring protection on the structure side, and in the case where there is no armoring, 50 feet on the structure side. All sections shall be taken at locations corresponding to the Authority original survey. They shall be plotted by the Contractor on a minimum scale of 1 inch

equal to 10 feet horizontally, and 1 inch equal to 5 feet vertically, with the theoretical design cross section and allowable grade tolerances superimposed thereon. Additionally, the Contractor shall perform, plot, and submit a levee centerline profile with shots taken at a maximum of 20-foot intervals. The plotted cross sections and profile shall be submitted to the Authority for review. Electronic survey data shall be submitted to the Authority within 48 hours of completion of surveys. Survey notes shall be provided with the plotted sections for each survey taken by station, with offset and elevation. All compliance surveys shall be performed, signed, and sealed by a Louisiana Licensed Surveyor.

(12) Salinity Testing of Embankment Materials. The Contractor shall perform salinity testing every 500 feet for the last two 6-inch layers. Total salts content for the last two 6-inch layers must be less than 1,500 ppm. Suitable material with total salts content above 1,500 ppm shall only be utilized in the core of the levee fill. Embankment material placed in the last two 6-inch layers will not be paid unless proper salinity results are obtained.

1.5.2 Reporting

The original and two (2) copies of these records of inspections and tests, as well as the records of corrective action taken, shall be furnished the Authority Representative daily.

1.6 QUALITY ASSURANCE

As a control, the Owner will perform assurance and check tests for maximum dry density for all materials in accordance with ASTM D 698. If values for maximum dry density as determined by the Contractor and as determined by the Owner do not agree, the Owner will determine the values to be used. The Owner will also perform check and assurance testing of the other control testing required by the Contractor in paragraph "General", subparagraph (10).

1.7 EQUIPMENT

1.7.1 General

Compaction equipment shall be capable of properly compacting the soil so that no planes of weakness or laminations are formed in the fill. Equipment shall be capable of compacting a layer of soil not less than 6 inches thick to the requirements specified herein and shall be operated at speeds not to exceed 3.5 miles per hour.

1.7.2 Hand Tampers

Hand tamping shall be used in the compaction of fill within three feet of any structure or other drainage feature and near same where vehicular equipment cannot be used. These hand tampers shall be of the power driven, hand operated type.

1.7.3 Miscellaneous Equipment

Scarifiers, disks, spring-tooth or spike-tooth harrows, spreaders, power tampers, and other equipment shall be types suitable for construction of embankment and berms.

1.7.4 Sprinkling Equipment

Sprinkling equipment shall be designed to apply water uniformly and in controlled quantities to variable widths of surface.

1.8 EMBANKMENT AND BERM MATERIALS

1.8.1 General

The embankment and berms shall be constructed of earth obtained from the borrow areas and other required excavations as prescribed in Section 31 23 00.00 12 EXCAVATION and to the extent shown on the drawings. The borrow material shall only be from lands designated in Section 31 23 00.00 12 EXCAVATION, Paragraph “Clay Sources”. Borrow material from lands other than from the designated sites have not been cleared and the material quality not validated.

1.8.2 Moisture Control

The Contractor shall control the moisture content of the embankment material. The Contractor shall perform the necessary work in moisture control to bring the borrow material within the moisture content range specified in paragraph "Compaction". Borrow material is considered too wet to be placed directly upon the levee and berm(s)compacted fill footprint, if it has a moisture content greater than 10 percentage points above the optimum moisture content resulting from the Standard Proctor Compaction Test ASTM D 698. If the borrow material is too wet, it shall either be stockpiled and allowed to drain and/or the wet material shall be processed by disking and harrowing, if necessary, until the moisture content is reduced sufficiently, before being placed within the levee or berm(s) section. When it is discovered that wet fill has been placed over existing levee or newly constructed compacted fill footprint, the incident layer and previous layer will be tested in a minimum of two locations for density and moisture compliance. If the top or contact surfaces of a partially filled section becomes too wet to permit suitable bond between these surfaces and the additional backfill to be placed thereon, the wet material shall be scarified and permitted to dry, assisted by disking or harrowing. The material shall be re-compacted in accordance with the applicable requirements of paragraph "Compaction". Borrow material is considered too dry to be placed directly upon the levee and berm(s) compacted fill footprint, if it has a moisture content greater than 10 percentage points below the optimum moisture content resulting from the Standard Proctor Compaction Test ASTM D 698. If the borrow material is too dry, it shall be pre-wet in the source area, before being placed within the levee or berm(s) section. If the top or contact surfaces of a partially filled section becomes too dry to permit suitable bond between these surfaces and the additional fill to be placed thereon, the Contractor shall loosen the dried materials by scarifying, disking, or other approved methods, and shall re-compact this layer in accordance with the applicable requirements of paragraph "Compaction". No additional payment will be made for any moisture control required in this paragraph.

1.8.3 Compaction

The first and each successive layer of compacted fill material shall be compacted to at least 90 percent of maximum dry density as determined by ASTM D 698 (Standard Proctor Compaction Test) at a moisture content within

the limits of plus 5 to minus 3 percentage points of optimum moisture content determined from ASTM D 698.

1.8.4 Dressing

The entire embankment shall be brought to not less than the prescribed design cross section, within allowable tolerance, at all points. Unreasonable roughness of the surface shall be dressed out to permit fertilizing, seeding operations.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Embankment Material

The embankment shall be constructed of naturally occurring earth materials. Materials that are classified in accordance with ASTM D 2487 as CL or CH with less than 35% naturally occurring sand content are suitable for use as embankment fill. Materials classified as ML are suitable if blended to produce a material that classifies as CH or CL according to ASTM D 2487. Intentional blending of granular or organic soils will not be allowed. The Contractor shall notify the Contracting Officer whenever the In-Place Plasticity Index of the material is 15 or less. Materials placed in the section must be at or above the Plasticity Index of 10. Materials placed in the section shall be at or below an organic content of 9 percent by weight, as determined by ASTM D 2974, Method C. Materials placed in the section shall contain less than 35 percent sand content by weight, as determined by ASTM D 1140.

2.1.2 Suitability of Material

All fill materials shall be free from concentrated masses of unsuitable materials (excludes organic matter content as defined in ASTM D 2974, Method C) and other non-soil materials including, but not limited to, sticks, branches and roots. The size of a mass is defined as a 1/3 of a cubic foot of continuous unsuitable material. For purposes of suitability, a mass will be unacceptable if it consists of less than 50% suitable soil.

2.1.2.1 Isolated Masses

The presence of an isolated mass shall not be used to invalidate an entire lift layer if, in the opinion of the Authority Representative, that the surrounding soils and subsequent suitable cover is sufficient. Fill from natural borrow pits will likely contain wood, branches, sticks, and roots in varying degrees, but the fill is acceptable if it meets the requirements defined in this section. Pieces of wood will not be considered objectionable provided their length does not exceed 1 foot, their cross-sectional area is less than 4 square inches (on average for any 1-foot portion of wood), and they are distributed throughout the fill. Measurements of wood length shall not include any portion of the wood with a cross sectional area less than 1 square inch, but pieces of wood having a 2 foot or greater length and an average cross-sectional area of at least 1square inches shall be considered objectionable. For the top foot of suitable material placed on the levee and berm section, no unsuitable and non-soil material with a cross-sectional area greater than 1.5 square inches is allowed.

2.1.2.2 Investigation and Testing of Objectionable Materials

The Contractor shall expose and remove objectionable materials within the fill layer prior to compaction. Not more than 1 percent (by volume) of total unsuitable and non-soil materials shall be contained in the earthen material placed in each tested lift of the levee section. The tested lift is defined as the same dimensions as the lift for compaction testing. If, in the opinion of the Authority Representative, amounts of wood in the fill brought to the site are in excess of the embankment material requirements herein, the borrow area will be investigated by the Authority Representative. A determination will be made as to the appropriate action that may be necessary to eliminate the unacceptable materials being delivered to the site of the placement. Inspections of subsequent lifts prior to compaction shall be performed by the Contractor in the presence of Authority Representative. Organic matter within the soils shall not be considered a non-soil material.

2.2 UNSUITABLE AND NON-SOIL MATERIAL TESTING

If, in the opinion of the Authority Representative, unsuitable and non-soil material is above the specified limits of 1 percent total, volume testing shall then be performed by the Contractor to determine embankment material compliance. The testing method shall be in accordance with MVN Construction Control Manual for FIELD AND LABORATORY DETERMINATION OF NON-SOIL VOLUME FOR LEVEE FILL at the end of this section. If the testing confirms that the embankment material is out of compliance with these specified requirements, the Contractor shall either

1) Completely remove the lift in question and replace it with clean, acceptable fill, or

2) Submit for review and approval a corrective action that presents a plan for bringing the embankment material into compliance. Any delays and/or expenses, including interruption of embankment operations or replacement of embankment material, incurred as a result of correction of compliance issues revealed by this testing, shall be borne by the Contractor and shall in no way be at an additional expense to the Authority. If testing indicates that the material is in compliance with the specified requirements, and not requiring any corrective action, then the following will apply.

(1) The Contractor shall bear the cost of any expenses and delays of a maximum of three (3) tests for unsuitable and non-soil material, which indicate no corrective action.

PART 3 EXECUTION

3.1 EMBANKMENT FOUNDATION PREPARATION

3.1.1 Foundation Preparation

After clearing and grubbing and any required excavation of the embankment and berm foundation, test pits and other similar cavities and depressions shall be broken down, where so directed, to flatten out the slopes. The entire earth surface on or against which fill is to be placed, except areas covered with water and not drained as specified in paragraph "Drainage," shall be thoroughly broken to a depth of 6 inches. Areas on

which geotextile is to be placed shall be dressed, to provide a smooth surface within the allowable tolerance, and left unbroken. If for any cause, this broken surface becomes compacted in such a manner that, in the opinion of the Authority Representative, a plane of seepage or weakness might be induced, it shall again be adequately scarified before depositing material thereon. For levee enlargement work, both the natural surface of the ground and the surface of the existing levee to be occupied by the new work shall be prepared as specified above. All scarifying and breaking of ground surface shall be done parallel to the centerline of the levee.

3.1.2 Drainage

The foundation receiving fill provided for in Section 31 23 00.00 12 EXCAVATION and all partially completed fill shall be kept thoroughly drained except for the following:

(1) Drainage of areas covered with water will not be required; however, the Contractor may at its option and expense, drain the areas. Drainage to areas outside the right-of-way limits will be allowed only after the Contractor has submitted to the Authority Representative a copy of the conveyance that it has obtained permission from the appropriate landowner(s) for such drainage.

3.2 EMBANKMENT CONSTRUCTION

3.2.1 Compacted Fill

The location and extent of the compacted fill is shown on the drawings. Compacted fill shall not be placed in water. The materials for compacted fill shall be placed or spread in layers, the first or bottom layer and the last two layers not more than 6 inches in thickness prior to compaction and all layers between the first and the last two layers not more than 12 inches in thickness prior to compaction. Layers shall be started full out to the slope stakes and shall be carried substantially horizontal and parallel to the levee centerline with sufficient crown or slope to provide satisfactory drainage during construction. When the surface of any compacted layer is too smooth to bond properly with the succeeding layer, it shall be adequately scarified before the next layer is placed thereon except as specified in paragraph "Foundation Preparation". The elevation of the levee embankment shall not exceed the elevation of the berm embankment(s) by more than 2 feet.

3.3 CROSS SECTIONS AND ZONING OF MATERIALS

3.3.1 Embankment Sections

Unless otherwise specified, the dimensions and slopes shall conform to the applicable cross sections including the allowable tolerance, shown on the drawings.

3.3.2 Zoning of Materials for Levee Construction

In general, the levee section shall be homogeneous; however, where materials of varying permeability's are encountered in the borrow areas, the more impervious material shall be placed toward the flood side slope, and the more pervious material toward the protected side slope.

3.3.3 Berms

Berms shall be constructed at the locations and to the grade and cross section shown on the drawings.

3.4 TEMPORARY ACCESS ROAD AND HAUL ROUTE

3.4.1 Temporary Access Road

3.4.1.1 Criteria

Temporary access road shall be located as indicated on the drawings. They shall be designed to maintain the intended traffic and be free draining, shall be constructed by the placement of fill as specified in paragraph "Compacted Fill," The pre-construction and post-construction conditions shall be verified/documented by the use of Contractor furnished surveys and/or videos at the direction of the Authority. The Contractor should also be aware that truck routes and truck speed limits are subject to change and it should check with the appropriate state and/or parish officials for the applicable regulations. The Contractor shall furnish and use equipment (i.e., front-end loaders and street sweepers) as necessary to continuously keep any public street used free and clean of mud and other debris resulting from its hauling operations. No woody vegetation shall be disturbed to install temporary access roads. No separate payment will be made for this work.

3.4.1.2 Haul Route

At locations where a haul route is required under this contract, the Contractor shall re-construct any existing levee berms by placement of fill as specified in paragraph "Compacted Fill." No separate payment will be made for this work. This work shall be incidental to the maintenance of the haul route specified in Section 01000 Mobilization and Demobilization. The pre-construction and post-construction conditions shall be verified/documented by the use of Contractor furnished surveys and/or videos at the direction of the Authority.

3.4.1.3 Watering

The Contractor shall water down the temporary access road and haul routes that are within the construction easement area as necessary to keep dust from being blown or drifting into the adjacent areas. The Contractor shall be responsible for providing a minimum 500-gallon capacity water truck designed to apply water uniformly in controlled quantities over variable widths of surface to control dust during construction. Water applied for dust control shall be obtained from a potable municipal water supply.

3.4.1.4 Speed

Except in an emergency, all vehicles operating within the construction easement area shall not exceed 15 mph.

3.5 GRADE TOLERANCES

All embankments shall be constructed to the design grade and cross section shown on the drawings. For compacted fill, at all points, a tolerance of 3/10 of 1 foot above and zero feet below the prescribed design grade and cross section shown will be permitted in the final dressing provided that the crown of the levee drains, there are no abrupt humps or depressions in

surfaces or bulges in the width of the crown, and the side slopes are uniform.

3.6 SETTLEMENT OF FOUNDATION

3.6.1 Additional Fill

Should the Contractor desire payment for placing additional fill due to foundation settlement during construction, it shall furnish and install settlement gages for determination of such settlement. Prior to placing fill material, each gage shall be installed on the prepared foundation of the location shown on the applicable typical cross section at intervals not to exceed 100 feet, and shall be maintained during construction. Settlement gages at each end of the work shall be placed within 150 feet of the upper and lower limits of the work. Each gage shall be set on a smooth level surface on undisturbed ground or top of the geotextile where applicable. Leveling of gage beds shall be accomplished by removing the minimum amount of earth necessary to produce an even foundation and in such manner that the density of gage beds will remain at the same density as the undisturbed adjacent ground. Burying the settlement gage below the existing ground surface will not be permitted. Leveling of gage beds by the addition of fill will not be permitted. The type of gage used shall be as shown on the drawings. The Contractor shall determine elevations of the gages prior to placing fill material, and again within 72 hours after compliance cross sections have been taken over the completed embankment at the sites of the gages to determine settlement of the foundation. The 72-hour requirement is an absolute pre-condition for payment for settlement of the foundation. The initial and final elevation of the gages will be verified by the Authority's representative at the site. Measurement of additional fill material placed due to settlement of the foundation will be as stated in paragraph "MEASUREMENT." Installation of and measurement on gages shall be at the option and expense of the Contractor. When the settlement gage is located by boring with rotary drill, the drill hole shall be backfilled with embankment material and tamped throughout. At the Contractor's option, the drill hole may be filled with a bentonite slurry tremied from the bottom of the drill hole to the top of the drill hole. If a rotary drill is used in locating the settlement gages, it shall be advanced no closer than two feet of the anticipated settlement gage elevation. The elevation of the settlement gage shall then be determined with a sounding rod.

3.6.2 Failures

In clearly established cases of sudden failure of the foundation, (1) where no provision has been made for the measurement of settlement, there will be no measurement made for settlement; (2) where settlement measuring devices have been installed, but the nature of settlement is such as to destroy their utility, the settlement shall be determined from the average elevation of the nearest surviving settlement plates on each side of the failure or, if necessary, the settlement plate nearest the failure. For hydraulic fills, other methods that are mutually agreeable will be used to measure settlement.

3.6.3 Postpone Operations

Where settlement of the foundation develops to such an extent as to make it inadvisable, in the opinion of the Authority, to continue to add material, and advisable in its opinion, to postpone until a considerably

later date all attempts to bring that portion of the embankment to full grade and cross section, the Authority shall have the right to omit further work on that portion of the embankment and to accept it as completed.

FIELD AND LABORATORY DETERMINATION OF NON-SOIL VOLUME FOR LEVEE FILL

A. The field excavation testing shall be performed by excavating a 10’ wide x 10’ long and to a depth of the lift thickness for each lift that is in question. The volume of the excavation shall be verified using the end area method through measuring the dimensions of the excavation with the use of survey equipment at each corner of the hole. A difference of +/- 10% of the theoretical excavation is allowed. The Contractor shall bring all material excavated to the lab in sealed airtight containers. All excavations shall be completely backfilled by the Contractor within 72 hours of inspection unless directed otherwise by the COR. All backfill shall be in accordance with the existing contract documents, especially EMBANKMENT.

B. The unit weight of the soil shall be determined by ASTM D 6938 Field Density – Nuclear Method, ASTM D 1556 Field Density – Sand Cone Method, or ASTM D 698 Compaction Characteristics of Soil. All material testing shall be performed by a Corps validated lab.

C. Once all the excavated material is delivered to a Corps validated lab, any clay pieces adhering to the non-soil pieces that can be removed by hand without damaging the non-soil piece shall be removed.

D. All non-soil pieces shall be weighed in their existing conditions immediately prior to testing (wet weight as excavated). If all non-soil pieces do not fit in the Measure Box, then the non-soil pieces may be split into smaller sampling sizes for testing purposes and the cumulative volume reported.

E. Sturdy Measure Box containers shall be used for the non-soil volume determination processes. The minimum volume of the Measure Box is 0.8 cubic feet. This volume dimension is a minimum and may be enlarged if desired. The weight of the empty containers shall be determined using a calibrated scale and with the weight recorded to the nearest 0.1 lb. The container shall be filled in two layers with silica sand. The first layer of sand shall be densified by use of a Shake Table and vibrated such that the Silica sand achieves its maximum density. The second layer of silica sand shall be added and vibrated, with additional sand added as needed to “top off” the container as the sand achieves a greater density. The weight of the container filled with densified Silica sand shall be recorded to the nearest 0.1 lb using a calibrated scale. Determine the weight of the measure container plus sand three times to determine the average value. The maximum unit weight of the silica sand is the weight of the measure plus sand minus the weight of the measure divided by the known volume of the container and reported to the nearest 0.1 lb/ft^3.

F. The volume of the non-soil shall be determined by the following USACE MVN developed procedure, Non-Soil Volume Determination.

1) Volume and Weight Determination of Measures (annual): The volume of the Measure Box shall be determined and verified on an annual basis by the water filled method as specified in ASTM C29/C29M paragraph 8 and recorded to the nearest 0.1 ft^3.

2) Density Sand: Obtain silica sand also known as US Silica Sand. Verify that the quality of the silica or "Silica" sand meets the requirements specified in ASTM D1556 paragraph 6.2. The sand can be re-used, but it should be cleaned to comply with the previously referenced standard by sieving and/or rinsing, and oven drying prior to reuse.

3) Determining Densified Sand within a Measure Box: Before any tests determining non-soil volume content, a calibration test shall be run each day that testing is to be performed, to determine the standard weight of the sand in the Measure Box as discussed in section E. The three repeated determinations of densified sand weight per unit volume shall be within 2.0 pcf of each other.

A Measure Box shall be used to determine the densified sand and will be based upon use of a Shake Table and placement within layers. Clean and dry silica sand is placed loosely within each layer using a large scoop or the edge of a bucket by flowing and distributing the sand evenly across the surface area. The Shake Table is then to be used. The number and duration of vibrations will be determined as noted in the following trial. These times are approximate and should be modified by each laboratory to fit the Shake Table being used to achieve a consistent sand weight per unit volume.

MEASURE BOX – (1) Position measure over a large catch pan for collecting excess sand. Place loose Silica sand in one layer (half height of measure); (2) Using the Shake Table, vibrate the sand for 4-8 seconds; (3) Place loose silica sand in a second layer (full height of measure); (4) Vibrate the sand for 4-8 seconds. The sand should consolidate below the top rim of the measure; (5) Place additional (excess) sand above the top of the measure. It should appear to overflow. Vibrate for the sand for an additional 3-4 seconds. It is desired to have excess sand above the top of the rim after vibration of about 1/8 inch; (6) Using a straight metal bar, strike off the excess sand, leaving the sand flush with the top rim of the measure; (7) Weigh the measure and densified sand recorded to the nearest 0.1 lb; (8) Determine the weight per unit volume of the measure by subtracting the weight of the measure plus sand minus the weight of the measure then dividing by the known volume of the container and report to the nearest 0.1 lb/ft^3; (9) Repeat steps 1 thru 8 for a total of three

determinations of densified sand weight per unit volume, and calculate the average weight per unit volume to the nearest 0.1 lb/ft^3.

4) Standard Wood or Metal for Verification (annual): Eight pieces of wood or metal, labeled A thru G, measuring 5 inches by 1 inch by 2 inches are to be used to verify the volume determination by the densified sand method as detailed in 5) below. Determine the weight and linearly measured volume of the eight standard pieces of wood or metal to verify the calculated non-soil content from the use of densified silica sand within Measure Boxes of known volume.

5) Non-soil Verification (annual): Wood or metal pieces measured in Step 4) above will be used in each measure by densifying sand and four wood or metal pieces in each layer, for a total of eight wood or metal pieces within each measure. The same procedures outlined in Step 4) above are used to place and densify the sand and wood or metal within the measures. The wood or metal is placed within each layer with at least ½ inch of loose sand beneath and around the wood or metal pieces. The weight of the densified sand, measure, and wood or metal is used to determine the density and subsequent volume of the wood or metal. The calculated volumes shall be compared to the known volumes of the wood or metal pieces to see if any change in shaking time or sand type is needed. If the calculated and known volumes are within +/- 2% of each other, the test verification is successful. See below for the step by step procedures for this:

MEASURE BOX - (1) Determine the volume and weight of the measure as noted in Step 1) above; (2) Determine the average densified sand weight per unit volume as noted in Step 3) above; (3) Determine volume and weight of pre-cut pieces of wood or metal as noted in Step 4) above; (4) Densify wood or metal in layers following the similar method noted in Step 3) above; (5) Determine the densified sand and wood or metal weight in the unit measure; (6) Calculate the volume of wood or metal as shown below:

(a) Volume of Measure Box (ft^3)
(b) Weight of Measure Box (lb)
(c) Average weight per unit volume of densified sand (lb/ft^3)
(d) Wood or metal Pieces total weight (lb)
(e)) Wood or metal Pieces total volume (ft^3)
(f) Average determined densified sand, wood or metal, & measure weight (lb)
(g) Densified sand only weight (no wood or metal) = (c) x (a)
(h) Densified sand only weight (with wood or metal) = (f) – (b) – (d)
(i) Volume of wood or metal (from densified sand test) = [(g) – (h)] / (c)
(j) % actual volume wood or metal = 100 x (e) / (a)

(k) % tested volume wood or metal = 100 x (i) / (a)

6) Non-soil Volume Determination: Determination of non-soil volume for a test sample is as follows. Determine the wet weight of the sample prior to placement into the loose sand layers. Cleaned non-soil pieces from a sample are placed in one of the tested measures above by following procedures as outlined in Step 3). The non-soil pieces are placed within each layer of loose sand with at least ½ inch of loose sand beneath and around the various non-soil pieces. The non-soil piece may be cut to fit into the measure but care should be used to ensure that all pieces of the sample are measured. The weight of the combined densified sand, measure, and non-soil shall be recorded to the nearest 0.1 lb. To determine the density and subsequent volume of the non-soil pieces, see calculations below.

MEASURE BOX - (1) Determine the volume and weight of the measure as noted in Step 1) above; (2) Determine the average densified sand weight per unit volume as noted in Step 3) above; (3) Determine weight of sample pieces of non-soil; (4) Densify non-soil pieces in layers following the similar method noted in Step 3) above; Determine the densified sand and non-soil pieces weight in the unit measure; (5) Calculate the volume of non-soil pieces as shown below:

(a) Volume of Measure Box (ft3)
(b) Weight of Measure Box (lb)
(c) Average weight per unit volume of densified sand (lb/ft3)
(d) Weight of Sample Non-soil Pieces (lb)
(e) Determined densified sand, non-soil pieces, & measure weight (lb)
(f) Densified sand only weight (no non-soil pieces) = (c) x (a)
(g) Densified sand only weight (with non-soil pieces) = (e) – (b) – (d)
(h) Volume of non-soil pieces (from densified sand test) = [(f) – (g)] / (c)
(i) Volume of excavation (ft3)
(j) % tested volume non-soil pieces = 100 x (h) / (i)

7) Documentation: As a minimum, calibrations of Measure Boxes should be documented annually on the Unit Weight Measure Volume Determination Record. The Densified Sand unit weight shall be documented on the Densified Sand Calibration Record. Test records for samples shall be documented on the Non-soil pieces Volume Determination Record. Contact MVN-CD-Q for latest test forms.

G. The percent volume determined in Step 6) (j) above shall be compared versus the acceptable value listed in the specifications. If the test shows the percent volume is greater than the acceptable value, the Contractor shall follow the corrective actions as noted in the contract specifications.

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GRANULAR SURFACING (CRUSHED STONE)

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, labor and materials and performing all work necessary to construct and maintain surfacing for the temporary access roads and construction staging areas as indicated on the drawings.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO T 180	(2001; R 2004) Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and an 457-mm (18-in) Drop

ASTM INTERNATIONAL (ASTM)

ASTM C 88	(2005) Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 117	(2004) Standard Test Method for Materials Finer than 75-um (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C 131	(2006) Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 136	(2006) Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM D 4318	(2005) Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D 75	(2003) Standard Practice for Sampling Aggregates
ASTM E 329	(2005b) Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.3 MEASUREMENT

1.3.1 Temporary Access Roads

Surfacing material required for the temporary access roads and their maintenance with the limitations specified in Paragraph 3.3 “MAINTENANCE,” shall be measured by the cubic yard satisfactorily placed.

1.3.2 Construction Staging Areas

Surfacing material required for the construction staging areas shown on the drawings, including their maintenance with the limitations specified in Paragraph 3.3 "MAINTENANCE," shall be measured by the cubic yard satisfactorily placed.

1.3.2.1 Vehicle Delivery

Measurement will be made by the cubic yard in approved vehicles at the site of the work. Allowance will not be made for wastage or shrinkage during transportation from car or other point of loading. Approved vehicles for this purpose may be of any type acceptable to the Authority. The body shall be that of any shape that the actual delivered contents may be readily and accurately determined and will remain constant. Unless all approved vehicles for the work are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its approved capacity. The Authority Representative may reject all loads hauled in non-approved vehicles. Upon delivery of each load at the jobsite and prior to the Contractor's measurement of each load, the Contractor shall "level-off" each load within the approved vehicles so that an accurate measurement of each load can be made. After leveling off the load, the Contractor's Quality Control personnel shall measure each load at the site of work.

In lieu of vehicle delivery outlined above, the Contractor may use weights and a conversion factor to determine the cubic yard quantity of each vehicle. If this method is used the following procedures will be followed:

Conversion from Tons to Cubic Yards

(1) Using a vehicle where the volume capacity can be easily determined (a simple box bed with no obstructions in the bed), the vehicle is filled to capacity and leveled off.

(2) The weight of material in the vehicle is determined using certified scales.

(3) The vehicle is either driven to the site or a minimum 10 miles if the vehicle is not actually used to deliver material to the site.

(4) The volume of the material is then determined using the method outlined herein.

(5) Using the weight of material in the test vehicle and the computed volume of material, a factor to convert from tons to cubic yards is determined. This conversion factor will be used to determine the cubic yard quantities for material hauled from the same site with weights determined using certified scales. The above procedures will be repeated for every 1,000 cubic

yards of material delivered from the site. The procedure for determining the conversion factor shall be witnessed by the Authority's Representative.

1.4 PAYMENT

1.4.1 Temporary Access Roads

Payment for the surfacing materials required for the surfacing and maintenance of the temporary access roads, and all the costs associated therewith shall be made at the contract unit price for "Granular Surfacing (Crushed Stone)". Price and payment shall constitute full compensation for subgrade preparation; furnishing all plant, labor, equipment, and materials; placing, spreading, compacting, maintenance, and removal as shown on the drawings and specified herein.

1.4.2 Construction Staging Areas

Payment for the surfacing material required for the construction staging areas shown on the drawings, including their maintenance with the limitations specified in Paragraph 3.3 "MAINTENANCE" will be made at the contract unit price per cubic yard for "Granular Surfacing." Price and payment shall constitute full compensation for subgrade preparation; furnishing all plant, labor, equipment, and materials; placing, spreading, compacting, and maintenance as shown on the drawings and specified herein.

1.5 SUBMITTALS

Prior to beginning granular surfacing, certified LA abrasion, Atterberg limits, soundness and gradation test results of surfacing material shall be submitted to the Authority for approval prior to shipment.

1.6 QUALITY CONTROL

1.6.1 General

The Contractor shall establish and maintain quality control for the surfacing operations to assure compliance with contract specifications and maintain records of his quality control for all construction operations including but not limited to compliance with surfacing standards, quality and gradation of surfacing, thickness of surfacing prior to compaction, and width and location of the roadway in relation to the new levee centerline and/or the existing roadway footprint.

1.6.2 Sampling and Testing

All laboratory facilities, personnel, and equipment used to test soil, concrete, and asphalt shall be part of a validated laboratory that has been inspection or audited by the USACE Materials Testing Center, Vicksburg, MS.

1.6.2.1 Sampling

Sampling of material shall be performed in conformance with ASTM D 75. Sampling will be observed by the Authority's Representative.

1.6.2.2 Testing

Testing of surfacing materials shall be performed at a minimum frequency of one set of tests per 2500 cubic yards or fraction thereof of surfacing material placed. Testing of surfacing materials shall include gradation and Atterberg limit testing as indicated in paragraph(s) "Crushed Stone". Test performance shall be pursued in such a manner that the results are obtained in the minimum time frame. All test results shall be furnished to the Authority's Representative to confirm materials' compliance with the specifications. Surfacing materials not meeting the specifications shall be removed from the site and replaced with surfacing materials meeting the specifications.

1.6.3 Reporting

The original and two copies of these records, as well as the records of corrective action taken, shall be furnished the Authority Representative daily.

PART 2 PRODUCTS

2.1 SURFACING

Surfacing material shall be one of the following:

2.1.1 Crushed Stone

Crushed stone from the sources listed in Section 01100 GENERAL PROVISIONS, paragraph entitled "STONE SOURCES" shall consist of 100 percent stone and shall meet the following requirements when tested in accordance with ASTM C 136 and ASTM C 117, Procedure B:

U.S. Sieve	Percent Passing
1-1/2-inch	100
3/4-inch	50 - 100
No. 4	35 - 65
No. 40	10 - 32
No. 200	3 - 15

The fraction of material passing the No. 40 sieve shall conform to the following requirements when tested in accordance with ASTM D 4318:

Liquid Limit (Max.)	25
Plasticity Index (Max.)	4

Crushed stone shall show an abrasion loss of not more than 40 percent when tested in accordance with ASTM C 131 and a soundness loss of not more than 15 percent when subjected to 5 cycles of the magnesium sulfate soundness test in accordance with ASTM C 88.

PART 3 EXECUTION

3.1 BASE PREPARATION

Prior to placement of the surfacing as indicated on the drawings, all debris shall be removed from the area to receive the surfacing. Base preparation for the temporary access roads and construction staging areas shall be completed in advance of placing surfacing.

3.2 PLACEMENT AND COMPACTION

The placement of surfacing shall not commence until all slope operations in the area have been finalized. No surfacing shall be placed or compacted on a muddy or rutted subgrade. The surfacing material shall be compacted to provide a smooth, uniform, closely-knit riding surface free from ridges and depressions. Compaction shall be performed by making two or more passes with a rubber-tired roller. The surfaced area shall be built to the depth shown on the drawings. Any damage to the finished surfacing by the Contractor's construction operations shall be repaired by the Contractor at no additional expense.

3.2.1 Shaping

The surface course shall be shaped by the use of a blade grader or other suitable means. Any ruts formed shall be shaped as often as necessary to prevent breaking through the surfacing material into the subgrade or into the geotextile fabric. Holes, waves, and deficiencies in thickness, which may develop and are not filled by shaping, shall be filled by adding more material. Shaping shall continue until the surface is free from ruts, waves, and undulations.

3.2.2 Rollers

The minimum requirements for rubber-tired rollers to be used for compaction will be a 10-ton, 11-wheel, 7.50 x 15 tires, towed type, and tandem pneumatic-tired roller. All rollers shall be towed at speeds not to exceed 5 miles per hour.

3.3 MAINTENANCE

3.3.1 Temporary Access Roads

The temporary access roads shall be maintained by such shaping and addition of surfacing material as directed by the Authority to provide a usable and drivable road under all weather conditions until the road is removed. No additional payment will be made for this maintenance.

3.3.2 Construction Staging Areas

The construction staging area shall be maintained by such shaping and addition of surfacing material as directed by the Authority Representative to provide a usable and drivable road under all weather conditions during the construction period. No additional payment will be made for shaping operations. Additional surfacing materials required to repair any damages to the finished surfacing occasioned by the Contractor's construction operations will not be measured for payment. Additional surfacing materials required to repair any damages to the finished surfacing not occasioned by the Contractor's construction operations will be measured for payment.

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SECTION 32 92 19.04 12

TURF ESTABLISHMENT AND MAINTENANCE

PART 1 GENERAL

1.1 SCOPE

The work provided herein consists of the Contractor furnishing all plant, labor, equipment, and materials, and performing all operations necessary for establishment and maintenance of turf on areas as specified herein and as indicated on the drawings. Turf establishment of the embankment shall be performed upon completion of embankment construction and repair of any damaged slopes prior to turfing operations.

1.2 MEASUREMENT

1.2.1 Seeding and Mulching

Measurement for seeding and mulching will be made by the acre. Acreage will be determined from surface areas computed from all newly constructed embankments and all disturbed areas within the construction limits. Measurement will be to the nearest foot and units computed to the nearest one-hundredth of an acre. No separate measurement will be made for placement of material required for repairs as described in paragraphs "Soil for Repairs" and "Replanting".

1.2.2 Fertilizer

Measurement for applying initial and post fertilizer to the soil as recommended by the certified agronomist after reviewing the soil testing results shall be made by the pound. The fertilizer weights shall be computed based on the available weights of nitrogen, phosphorous, or potassium required by the Turf Establishment Plan. Other inert or elemental materials typically included in the fertilizer shall not be included in the weight measurement. Measurement will be computed to the nearest pound.

1.2.3 Lime Soil Amendment

Measurement for applying soil amendments lime to the soil as recommended by the certified agronomist after reviewing the soil testing results shall be made by the ton. Measurement will be computed to the nearest one-hundredth of a ton.

1.3 PAYMENT

1.3.1 Seeding and Mulching

Payment for seeding and mulching will be made at the contract unit price per acre for "Seeding and Mulching". Price and payment shall constitute full compensation for furnishing all plant, labor, materials and equipment, including soil testing, and Turf Establishment Plan to prepare the soil and apply the seed and mulch at the applicable rates as specified herein. After seeding and mulching is completed, the Contractor may request payment. Material certification and invoices must be provided to authorize payment when seeding is completed.

1.3.2 Fertilizer

Payment for initial and post fertilizer as required by the Turf Establishment Plan shall be made at the contract unit price per pound for "Fertilizer". Price and payment shall constitute full compensation for furnishing all plant, labor, materials and equipment necessary to apply the fertilizer at the applicable rates as described in the Turf Establishment Plan.

1.3.3 Lime Soil Amendment

Payment for lime application will be made at the contract unit price per ton for "Lime Soil Amendment". Price and payment shall constitute full compensation for furnishing all plant, labor, materials and equipment to apply the lime soil amendment at the applicable rates as described and recommended in the Turf Establishment Plan.

1.4 SUBMITTALS

1.4.1 Seed

The Authority shall be furnished duplicate signed copies of statements certifying that each container of seed delivered is labeled in accordance with the Federal Seed Act and any Louisiana Department of Agriculture regulations and is at least equal to the requirements specified in paragraph "Soil for Repairs". This certification shall be obtained from the supplier and shall be furnished on or with all copies of seed invoices.

1.4.2 Turf Establishment Plan

The Contractor shall submit a Turf Establishment Plan for approval. The plan shall include recommendations for fertilizer and/or soil amendment application based upon soil testing results by a certified agronomist or soil scientist for each completed section of levee to be turfed. The Contractor shall provide the name of the certified agronomy testing laboratory in addition to copies of the levee/embankment material soil analyses data sheets. Soil analyses shall include soil pH, phosphorus, potassium, calcium, magnesium, sodium, sulfur, copper, zinc, chloride, total dissolved salts, conductivity, and sodium absorption ratio. In addition to the soil amendment and fertilization plan, the Turf Establishment Plan shall describe procedures and specific equipment used for ground surface preparation, seeding, and mulching.

1.5 QUALITY CONTROL

1.5.1 General

The Contractor shall establish and maintain quality control for the work specified in this section to assure compliance with contract requirements and maintain records of this quality control for all construction operations including, but not be limited to, the following:

(1) Soil Analyses - Soil analysis reports from a certified agronomic laboratory. Soil samples will be taken in accordance with paragraph "Soil Analysis" and the test results used to determine weights of fertilizer and soil amendments required.

(2) Preparation of Ground Surface - Location and quality of finished dressing, including necessary clearing, filling, or dressing out of washes, smoothness and uniformity of surfaces, and time of year.

(3) Fertilizing - Quality of fertilizer materials used. Areas fertilized, quantity applied, and method of application. Certificate of analysis and certificate of delivery shall be furnished to the Authority Representative to verify quality and quantity as specified in paragraph Turf Establishment Plan. The rate of application shall be checked daily to insure conformance to soil testing laboratory recommendations.

(4) Seeding - Seed species and cultivar, seed label, area covered, quantity of seed applied, and method of seed distribution. All bags of seed furnished shall have an analysis tag showing all information required by the Louisiana Seed Law. Seed furnished shall be from the previous season's crop and the date of analysis shown on each tag shall be within 5 months of time of delivery. Rate of application shall be checked daily to insure that the rate conforms to the requirements of paragraph General.

(5) Mulching - Quality and type of mulch material applied, area covered by the mulch, quantity applied, and method of mulch application. Certificate of delivery showing weight of material delivered for either vegetative or fiber mulch shall be furnished to verify rate of application in accordance with paragraph "Applying And Anchoring Mulch".

(6) Maintenance and Repair - Location and type of maintenance problems and remedial treatment performed in accordance with paragraph "Soil for Repairs".

1.5.2 Reporting

The Contractor shall furnish the original and two copies of the inspection and test records, as well as "corrective action taken" records, to the Authority's Representative daily.

1.6 AREAS TO BE TREATED

Fertilizing, soil amending, seeding, and mulching shall be performed on all disturbed areas within the construction limits and on all newly constructed embankments.

1.7 COMMENCEMENT, PROSECUTION, AND COMPLETION

1.7.1 General

Preparation of the ground surface, fertilizing, and soil amending shall be in accordance with paragraphs "Preparation of Ground Surface" and "Application of Fertilizer and Soil Amendments. Seeding operations shall be accomplished during the applicable growing season as specified in paragraph "Seeding".

1.7.2 Sequence of Work

The sequence of operations for work prescribed in this section, except mowing, shall be as follows:

(1) Soil Analyses

(2) Preparation of Ground Surface

(3) Fertilization and Soil Amendments

(4) Seeding

(5) Mulching

Fertilizing, seeding and mulching operations shall commence upon completion of embankment construction at a length corresponding to the completed length of embankment construction in SECTION 31 24 00.00 12. At no time shall such fertilizing, soil amending, seeding, and mulching operations be more than 14 days behind completed portions of embankment unless approved by the Authority.

1.8 TURF ESTABLISHMENT PLAN

At least 14 calendar days prior to initiating grass establishment, the Contractor shall furnish a Turf Establishment Plan for review and approval. The plan shall include recommendations for fertilizer and/or soil amendment application based upon soil testing results for each completed section of levee to be turfed. These test shall be performed by a certified agronomist. Recommendations based on soil testing results will be from a testing laboratory, state agricultural extension services, or private consultant. However, the Turf Establishment Plan must be prepared by the Contractor and approved by a certified agronomist or certified soil scientist to clearly indicate the application rates for soil amendments and fertilizer. In addition to soil amendment and fertilization, the Turf Establishment Plan shall describe procedures and specific equipment used for ground surface preparation, seeding, and mulching. Unless the approved Turf Establishment Plan contains a variation, the minimum requirements for ground surface preparation, seeding, and mulching contained in this specification will be controlling.

1.8.1 Certified Agronomy Testing Laboratory

The Contractor shall provide the name of the certified agronomy testing laboratory in addition to copies of the levee/embankment material soil analyses as part of the turf establishment plan. Soil analyses shall include soil pH, phosphorus, potassium, calcium, magnesium, sodium, sulfur, copper, zinc, chloride, total dissolved salts, conductivity, and sodium absorption ratio.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Fertilizer and Soil Amendments

Fertilizers and soil amendments in accordance with the approved Turf Establishment Plan shall be of commercial grade, uniform in composition, free flowing and suitable for the Contractor's application method. Materials shall be delivered in bulk or labeled containers and shall conform to current Louisiana Department of Agriculture requirements for commercial fertilizers and soil amendments. Federal and state Government

conforming labels that indicate producer's name, type, analysis, weight, and warranty of producer shall accompany each delivery of fertilizer. The Contractor shall provide duplicate signed copies of invoices from suppliers of fertilizer and/or soil amendments showing quantity, grade, and fertilizer analysis indicating percentages of nitrogen (soluble and insoluble), phosphorus, and potassium.

2.1.2 Soil for Repairs

Areas not suitable for turf establishment due to undulations or rills in the soil surface shall be repaired using compacted fill in accordance with Section 31 23 00.00 12 "Excavation" and Section 31 24 00.00 12 "Embankment".

2.1.3 Seed

For turf establishment, the Contractor shall furnish and apply certified (blue-tag) seed in accordance with regulations from the U.S. Department of Agriculture (under the Federal Seed Act) and the Louisiana Department of Agriculture. Seed must be in sealed or unopened containers prior to initiation of application. Seed that is wet, moldy or otherwise non-viable due to damage in transit or storage will not be accepted. Seed that is older than one year past label germination tests will not be accepted.

2.1.4 Mulch

Mulch shall be 100% thermally treated wood mulch fiber or higher quality mulch that shall be furnished and applied by the Contractor. All mulch products shall include a minimum 3% tackifier or be anchored by a method approved by the Engineer, unless the manufacturer specified an anchoring method. Materials that contain noxious grass or weed seeds that might be detrimental to the seed establishment or turf growth or to adjacent areas will not be acceptable. Mulch shall be 100% thermally treated wood fiber or higher quality mulch as specified in the Turf Establishment Plan.

2.1.5 Water Source

Water applied during the establishment and irrigation of grass on the embankment shall be obtained from a potable municipal water supply.

PART 3 EXECUTION

3.1 SOIL ANALYSIS

3.1.1 Soil Analysis

Soil samples shall be collected for every 5 acres of disturbed area to be turfed. Each soil sample shall be a composite sample from no less than six random areas within the 5-acre area to a depth of four inches on the levee, embankment, and/or berm surfaces. Collected soil shall be mixed in a clean, non-metallic container. All organic matter from existing vegetation shall be removed from the soil sample prior to submission to the testing laboratory.

3.2 PREPARATION OF GROUND SURFACE

3.2.1 General

Equipment, in good condition, shall be provided for ground preparation and for handling and placing all materials. The Authority's Representative shall approve equipment before work is initiated as part of the Turf Establishment Plan.

3.2.2 Vegetative and Debris Removal

Prior to soil preparation, existing vegetation shall be removed. Vegetation removal may be accomplished through mowing (scalping). Any debris or material (e.g. clippings, shell, rocks, gravel) that may hinder seed germination, limit plant growth, or interfere with mowing operations shall be removed as specified in Section 31 11 00.00 12, paragraph DISPOSAL OF DEBRIS. Prior to and during soil preparation, the Contractor shall also remove any shells, rock, and other debris that are in the embankment and vegetative material from clearing that was placed back onto the levee section after completion of the embankment. The Contractor shall utilize a landscape rock rake or similar equipment supplemented with hand labor to remove this debris prior to fertilizing, seeding and mulching.

3.2.3 Grading

Previously established levee/embankment grades and slopes shall be maintained in a true and even condition on the areas to be established with turf. Repairs to previously graded areas with undulations or irregularities shall be accomplished with material as described in paragraph SOIL FOR REPAIRS. The material shall be placed and compacted in accordance with Section 31 24 00.00 12, paragraph EMBANKMENT AND BERM CONSTRUCTION. Where grades have not been established, the areas shall be graded as shown, or as directed by the Authority's Representative and all surfaces shall be left in a true and even condition. The Authority's Representative will conduct a Pre-Turfing inspection prior to commencement of turfing operations.

3.2.4 Soil Preparation

Soil shall be tilled to a depth of 2 inches by plowing, disking, harrowing, or other approved methods in the Turf Establishment Plan in order to provide an acceptable seed bed. The soil preparation shall be performed only during periods acceptable for turf establishment, in the opinion of the Authority's Representative. Environmental conditions that may constitute unacceptable periods for soil preparation include, but are not limited to, drought, high winds, excessive moisture, etc. The work shall cease until conditions are more favorable for turf establishment. Any additional soil repair shall be completed prior to turf establishment.

3.3 APPLICATION OF FERTILZER AND SOIL AMENDMENTS

Adjustment of soil nutrient levels will be in accordance with the approved Turf Establishment Plan as specified in paragraph "Turf Establishment Plan". Unless otherwise specified in the approved plan, initial fertilizers and soil amendment applications shall be incorporated into the top two inches of soil prior to seeding. The Contractor shall layout the embankment sections in one acre plots, with levee crown and side slopes laid out separately from berms and other areas to be treated. The one-acre plots shall be clearly marked with stakes and flagging to assure the correct amount of soil amendments, seed and mulch is applied

per acre.

3.3.1 Fertilizer

In accordance with the approved Turf Establishment Plan, fertilizer shall be incorporated to a depth of 2 inches prior to seeding.

3.3.2 Soil pH

Soil pH shall be between 5.4 and 8.2. If the soil pH is outside of this range, one of the following amendments shall be added to adjust the soil pH.

3.3.2.1 Increasing Soil pH

A pulverized or palletized agricultural lime source shall be applied prior to planting and incorporated into the top 2 inches of soil. The rate of lime application shall be as specified in the approved Turf Establishment Plan. Dolomitic lime may be substituted for lime if magnesium levels are insufficient in accordance with the soil test results. Materials shall be hydrated lime conforming to Section 1018.03 of the 2006 edition of LDOTD Standard Specification for Roads and Bridges. The quantity of lime to be mixed with the embankment shall be determined by the soil testing results, and shall be sufficient in quantity to permit compaction to the specified density. The lime shall be uniformly spread and uniformly mixed with the soil.

3.3.2.2 Reduce Soil pH

Agricultural grade elemental sulfur shall be applied, as specified in the approved Turf Establishment Plan, prior to planting. Elemental sulfur shall be incorporated into the top two inches of soil.

3.4 SEEDING

3.4.1 General

The applicable seed shall be sown at the rate and time as indicated in the table below, unless otherwise specified in the approved Turf Establishment Plan. The method of sowing shall be hydro-seed/mulch where-by the seed fertilizer, and mulch shall be premixed for the required application rates per the approved Turf Establishment Plan or other approved methods. No broadcast seeding shall be allowed for seeding application. When delays in operations extend the work beyond the most favorable planting season for the species designated, or when conditions are such by reason of drought, high winds, excessive moisture, or other factors that satisfactory results are not likely to be obtained, work shall be stopped as directed by the Authority's Representative and resumed only when conditions are favorable for turf establishment or when approved alternative or corrective measures and procedures have been completed. If inspection during or after seeding operations indicates that areas have been left unplanted or other areas have not been adequately addressed, additional seed shall be applied.

March 1 to September 1

Hulled common Bermuda grass - 150 lbs (min) of PLS/acre or Bermuda grass/seashore paspalum mix or Bermuda grass/bahia grass mix - 150 lbs (min) of PLS / acre

September 1 to March 1

Step 1 - annual, intermediate or perennial rye grass-50 lbs (min) of PLS / acre to provide coverage during months when environmental conditions are not suitable for common Bermuda grass establishment.

Step 2 - between March 1 and September 1 - hulled common Bermuda grass - 150 lbs (min) of PLS/acre or Bermuda grass/seashore paspalum mix or Bermuda grass/bahia grass mix- 150 lbs (min) of PLS/ acre

Hulled Bermuda grass may be planted in the month of February if soil temperatures are in excess of 65 F for a minimum of 7 consecutive days.

PLS (Pure Live Seed) = (label germination rate x label purity) x 100

Example of how to calculate PLS
PLS = (0.95 germination rate x 0.85 purity) 100
PLS = 81%
Therefore 1 lb PLS requires 1/0.81 = 1.23 lbs of seed

3.5 APPLYING AND ANCHORING MULCH

Application of mulch shall follow these guidelines unless otherwise specified in the approved Turf Establishment Plan. The mulch shall be vegetative non-asphalt mulch consisting of 100% thermally treated wood fiber or higher quality mulch. Hydro-mulch shall be applied at the rate specified in the turf establishment plan but no less than 3,500 pounds per acre on levee slopes and crown and 2,000 pounds per acre on berms. Hydromulching will include a minimum of 3% tackifier or be anchored by a method approved by the Authority, unless manufacturer specifies an anchoring method. The mulch and tackifier shall be applied by means of approved equipment.

3.6 WATER APPLICATION DURING TURF ESTABLISHMENT

Unless the Authority Representative concurs that acceptable levels from precipitation have occurred to support grass establishment, a single watering operation will be conducted one to two days after seeding. The application of water shall sufficiently moisten at least the top 2 inches of soil. The application of water in excess, so that surface runoff occurs, is prohibited. The Contractor shall repair all damaged areas, including tire ruts and repairs to seeded and mulched areas, caused by watering at their own expense.

3.7 INSPECTIONS AND REPORTS

After initial planting, the Contractor shall inspect newly turfed areas. For each inspection conducted, the Contractor shall prepare a report summarizing the scope of the inspection, names of personnel making the inspection, inspection date, height of vegetation, observations and conclusions, maintenance performed, and corrective actions, if required. The report shall be furnished to the Authority's Representative within 24 hours of the inspection as a part of the Contractor's daily QC Report.

3.8 REPLANTING

The Contractor shall restore/repair any eroded areas or bare spots along the alignment in accordance with the requirements of this specification, all at the Contractor's expense.

3.9 POST-PLANTING FERTILIZER APPLICATION

For those areas that do not require replanting, post fertilizer shall be applied as recommended by the certified agronomist or as recommended in the Turf Establishment Plan. The fertilizer shall be applied with rainfall occurring within 24 hours.

-- End of Section --

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SECTION 35 42 38.00 12

CONCRETE SLOPE

PAVEMENT

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment and materials (including concrete), and performing all operations in connection with foundation preparation; forming, placing, curing and testing of concrete; sealing joints; and placing miscellaneous backfill as shown on the drawings and as hereinafter specified.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM C 31/C 31M	(2006) Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C 33	(2003) Standard Specification for Concrete Aggregates
ASTM C 42/C 42M	(2004) Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
ASTM C 94/C 94M	(2006) Standard Specification for Ready-Mixed Concrete
ASTM C 136	(2006) Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C 143/C 143M	(2005a) Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C 150	(2005) Standard Specification for Portland Cement
ASTM C 174/C 174M	(2006) Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
ASTM C 231	(2004) Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C 260	(2006) Standard Specification for

	Air-Entraining Admixtures for Concrete
ASTM C 309	(2006) Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C 494/C 494M	(2005a) Standard Specification for Chemical Admixtures for Concrete
ASTM C 595	(2006) Standard Specification for Blended Hydraulic Cements
ASTM C 618	(2005) Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C 989	(2006) Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars
ASTM C 1064/C 1064M	(2005) Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM D 75	(2003) Standard Practice for Sampling Aggregates
ASTM D 3406	(2000) Joint Sealant, Hot Poured, Elastomeric Type, for Portland Cement Concrete Pavements

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

NIST HB 44	(2007) NIST Handbook 44: Specifications, Tolerances, and other Technical Requirements for Weighing and Measuring Devices

LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2006 Edition), LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT (LADOTD)

LSSRB 1003.02	Aggregates for Portland Cement Concrete and Mortar

CONCRETE PLANT MANUFACTURER'S BUREAU (CPMB)

CPMB-01.9	(Jan 1990)Concrete Plant Standards 9th Revision

U.S. BUREAU OF RECLAMATION (BOR)

BRSS-M-41	(Mar 1998) Elastomeric Canal Joint Sealant

1.3 MEASUREMENT

Measurement for concrete slope paving will be made by the square yard of concrete pavement satisfactorily placed. Measurement will be made to the nearest 1/10 foot and units computed to the nearest square yard

1.4 PAYMENT

Payment for concrete slope paving will be made at the contract unit price per square yard for "Concrete Slope Paving Installation." Price and payment shall include the cost of all labor, materials, and the use of all equipment and tools required to construct the concrete scour protection including formwork, joints, sealants, reinforcement, cutoff trench, and other components incidental thereto.

1.5 QUALITY CONTROL

1.5.1 General

The Contractor shall establish and maintain quality control and records thereof for pavement operations to assure compliance with contract requirement for all construction operations including but not limited to the following:

(1) Preparing concrete foundations.

(2) Checking batching equipment for accuracy at least once a month in accordance with requirements of NIST HB 44.

(3) Obtaining samples of aggregates in accordance with ASTM D 75 and testing in accordance with ASTM C 136 one week before, and daily intervals during production.

(4) Setting of forms and expansion joints, chipping and wire brushing of construction joints and checkout just prior to concrete placement.

(5) Batching, mixing, conveying, placing, finishing, curing and protecting concrete, and sealing joints.

(6) Molding of concrete cylinders as specified in paragraph "Compressive Strength."

(7) Determining air content, slump and concrete temperature in accordance with ASTM C 231, ASTM C 143/C 143M, and ASTM C 1064/C 1064M, respectively, as well as recording air temperature. These tests shall be performed and recorded every time cylinders are molded and more often as needed for Quality Control.

(8) Recording number, dimensions and locations of cores referenced to levee centerline or baseline stationing.

(9) Recording location and amount of pavement less than 3 inches in thickness or less than 1200 psi which is removed, and disposition of removed concrete.

(10) Backfilling of toe trench.

1.5.2 Reporting

The original and two copies of quality control records, as well as the records of corrective action taken shall be furnished to the Authority Representative daily.

1.6 DEFINITIONS

As used in this section are as follows:

"Pavement" refers to "concrete slope pavement".

"Existing Old Pavement" is in place pavement that is not part of this contract.

"Existing New Pavement" is in place pavement that is part of this contract.

"New Pavement" is pavement that is intended to be placed on any given day.

"Cold Joint" refers to a joint caused when a placement of concrete cannot be mixed homogeneously with adjacent previously placed concrete.

"Batture" refers to the area between the floodside levee toe and the top of the riverbank.

"Embankment Material" is as specified in Section 31 24 00.00 12 EMBANKMENT, paragraph "Materials."

1.7 PAVEMENT ACCEPTANCE TESTING

1.7.1 Thickness

Slabs shall have a minimum thickness of 6 inches. The pavement shall be cored in accordance with ASTM C 42/C 42M to check its thickness except that
2 inch diameter cores shall be acceptable. After the required curing period, a core shall be obtained at locations and time intervals to be determined by the Authority Representative. Samples shall be obtained and the core holes refilled with a 2000 psi compressive strength concrete or grout mix in the presence of the Authority Representative. Cores will be measured by the Authority Representative in accordance with ASTM C 174/C 174M.

1.7.2 Compressive Strength

Companion sets, each consisting of 3 concrete cylinders, shall be prepared by the Contractor in accordance with ASTM C 31/C 31M in the presence of the Authority Representative. A companion set shall be prepared for every 100 cubic yards placed and for any additional fraction greater than or equal to 50 cubic yards placed or not less than once a day if less than 100 cubic yards per day are placed. They shall be clearly labeled on the sides of the cylinder molds, initially cured according to ASTM C 31/C 31M paragraphs 9.1 and 9.2, and protected and transported by the Contractor to the testing laboratory according to ASTM C 31/C 31M. One cylinder will be tested at 7 days for information. The other two companion cylinders will

be tested at the age of 28 days (90 days if pozzolan is used) and averaged to determine payment.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Cementitious Material

Cementitious material shall be portland cement, portland pozzolan cement or portland cement in combination with pozzolan or ground granulated blast-furnace (GGBF) slag and shall conform to appropriate specifications listed herein. Cementitious materials will be accepted on the basis of manufacturer's certification of compliance, accompanied by mill test reports, stating that materials meet the requirements of this specification. Certification and mill test reports shall be from current production and shall be representative of materials furnished.

2.1.1.1 Portland Cement

Portland cement shall conform to ASTM C 150, Type I low alkali or Type II low alkali, except that the maximum amount of C3A in Type I cement shall be
15 percent.

2.1.1.2 Portland Pozzolan Cement

Portland-pozzolan cement shall conform to ASTM C 595, Type IP with Table 2 mortar expansion limits.

2.1.1.3 Pozzolan

Pozzolan shall conform to ASTM C 618, Class C or F, with the low alkali requirement of Table 1A and the requirements for multiple factor.

2.1.1.4 Ground Granulated Blast-Furnace (GGBF) Slag

GGBF Slag shall conform to ASTM C 989, Grade 120.

2.1.2 Air Entraining Admixture

Air-Entraining Admixture shall conform to ASTM C 260.

2.1.3 Water Reducing Or Retarding Admixtures

Water Reducing or retarding admixtures shall conform to ASTM C 494/C 494M, Type A, B or D.

2.1.4 Aggregates

Aggregates shall be provided from a single approved source for all exposed concrete. Quality of all aggregates shall conform to the requirements of ASTM C 33. The grading of the aggregates as delivered to the mixer shall conform to LSSRB 1003.02 or ASTM C 33. The nominal maximum size coarse aggregate shall be 1 inch.

2.1.5 Water

Water for mixing shall be fresh, clean and drinkable. Water for washing aggregate and for curing shall not contain any substance that is injurious to the concrete.

2.1.6 Concrete

The concrete shall be composed of portland cement, an air entraining admixture, water, and fine and coarse aggregates. The use of pozzolan or a water reducing admixture is optional. The amount of pozzolan shall range between 20 and 40 percent of the total cementitious material by absolute volume. The Contractor shall provide a mix design which will produce concrete with a compressive strength of 2000 psi at 28 days (90 days if pozzolan is used). The air content shall be 5.5 plus or minus 1.5 percent, of the volume of the concrete. The slump shall be suitable for placing concrete on sloping surfaces as shown on the drawings. Concrete mixture proportions shall be submitted for review at least three weeks before concrete work begins. The proportions, types and sources of all ingredients and nominal maximum coarse aggregate size shall be stated. No substitution shall be made in the source or type of materials used in the work without submitting additional data showing that the new materials and quality of concrete are satisfactory.

2.1.7 Membrane Forming Curing Compound

Membrane forming curing compound shall conform to ASTM C 309, Type 2.

2.1.8 Forms

Forms shall be constructed of wood, steel, or other approved materials which are straight, free from warp and of sufficient strength when staked to resist the pressure of the concrete without springing in excess of 1/4 inch in 10 feet. The form surfaces shall be smooth, free from irregularities, dents, sags, or holes.

2.1.9 Form Release Agent

Form release-agent shall be a formulation of satisfactory and proven performance that will not bond with, or adversely affect concrete surfaces and will not impede curing.

2.1.10 Expansion Joint Filler

Expansion joint filler shall not contain holes and shall be Redwood, all heartwood; Western Red Cedar, all heartwood; or CCA pressure treated lumber with a minimum retention of 0.40 pcf. Expansion joint material shall be certified by the manufacturer, the grade, and the CCA retention, if applicable, shall be marked on each piece of wood before shipment.

2.1.11 Joint Sealer

Joint sealer shall be capable of being placed on the slopes shown at manufacturer recommended placing temperatures and in accordance with paragraph JOINTS. Sealer shall comply with ASTM D 3406 or BRSS-M-41: Class A, C, R or S. Preliminary acceptance of the sealant will be based on a certificate of compliance or manufacturer's literature which states compliance together with manufacturer's literature detailing the recommended application method and equipment. Final acceptance of the sealant will be based on a successful field demonstration.

PART 3 EXECUTION

3.1 LEVEE CROWN AND SLOPE

3.1.1 Levee Crown

The crown of the levee to be used by construction traffic shall be conditioned in advance of pavement operations to carry and withstand such traffic required by these specifications. The crown of the levee shall be graded to a reasonably smooth surface that slopes to drain. Throughout the period of pavement construction, the crown shall be maintained by shaping, addition of surfacing materials as specified in Section 32 15 00.00 12 SURFACING (GRANULAR), paragraph MAINTENANCE, and compaction as may be necessary to avoid damage to the levee and permit passage of construction traffic. Wherever, by reason of rain-wash, the Contractor's operations, or other causes, fill must be placed to bring the levee to design grade and cross section, embankment material shall be placed, and compacted in accordance with Section 31 24 00.00 12 EMBANKMENT, paragraph "Compacted Fill" and dressed in accordance with Section 31 24 00.00 12 EMBANKMENT, paragraph "Dressing."

3.1.2 Levee Slope

Preparation of the area to receive pavement shall commence as follows:

(1) All vegetation and debris shall be removed from the floodside levee slope.

(2) The floodside levee slope shall be graded and/or degraded to a reasonably smooth, uniform surface to the slopes shown on the drawings, in such a manner as to maintain the maximum levee design section. Rain-wash gullies less than 6 inches in depth may be refilled by plowing and/or disking the slope of the levee without adding any material. Gullies 6 inches or greater in depth shall be filled with embankment material compacted to a density at least equal to that of the adjoining undisturbed embankment and dressed in accordance with the requirements of Section 31 24 00.00 12 EMBANKMENT, paragraph "Dressing."

(3) After the levee slope has been prepared the entire area above the original natural ground surface shall be compacted by not less than 5 passes over the entire surface by the treads of a crawler type tractor, or similar equipment. A pass shall consist of complete coverage of the surface of a layer by the treads of the tractor or other compacting equipment approved by the Authority Representative. Portions of the embankment, which the compacting equipment cannot reach for any reason, shall be compacted by an approved method to the density equal to that of the surrounding embankment. In the event the prepared slope is damaged or develops low areas in the course of compaction or during subsequent operations, embankment material shall be added, compacted and dressed. Dressing includes bringing the entire embankment to not less than the prescribed design cross section at all points in areas where embankment is to be placed on the riverside levee slope. Compaction shall be repeated to whatever extent is necessary to produce a smooth slope meeting the requirements of these specifications. After final compaction is completed, the area shall be dressed to a smooth surface suitable to receive the pavement.

3.2 TOE TRENCH

3.2.1 Excavation

The toe trench shall be smoothly excavated to the section and bottom elevation shown on the drawings. In the event that the toe trench is excavated to depths greater than those specified, the Contractor shall fill the excessive excavation by placing excavated embankment material in layers, 6 inches or less in thickness, and compacting each layer to the density of the adjacent undisturbed ground, up to the elevation specified for the bottom of the pavement. In lieu of filling the excessive excavation, the Contractor may extend the pavement, at full thickness, down to the bottom of the cut. However, if the Contractor elects to extend the pavement to elevations lower than those specified, no payment will be made for such extra pavement. The toe trench shall be kept thoroughly drained.

3.2.2 Stockpiling

Earth material from the toe trench excavation shall be placed to a uniform grade and section adjacent to the excavation but not beyond the work limits shown in the plans. Gaps shall be left in the stockpiled material to prevent ponding in the trench area.

3.2.3 Backfilling

Backfilling operations shall not commence before 7 calendar days, and must be completed within 14 calendar days after placing the bottom slab. The material excavated from the toe trench shall be used as backfill unless it is determined otherwise by the Authority Representative. No backfill shall be placed in water. Backfilling shall be accomplished in accordance with Section 31 24 00.00 12 EMBANKMENT. Any pavement damaged during backfill operations shall, at the expense of the Contractor, be replaced or repaired as directed by the Authority. In the event that the backfill develops low areas, additional material shall be placed as may be necessary to produce a smooth backfill, without humps or hollows, to allow drainage away from the levee.

3.3 JOINTS

Within 15 days after completion of the required curing period, all debris, dirt, laitance and curing compound shall be removed from all types of joints by sandblasting or another approved method. Immediately after cleaning, all joints shall be filled with sealant utilizing equipment and methods recommended by the sealant manufacturer. All joints shall be filled to within 1/8 inch plus or minus 1/16 inch below the pavement surface. The Contractor shall be careful not to over fill or under fill the joints.

3.3.1 Construction Joints

Construction joints shall be constructed where new pavement abuts existing pavement in the direction parallel to the levee centerline. The surface of any existing pavement against which new pavement is to be placed shall be chipped and wire brushed to the extent necessary to remove damaged and unsound concrete and provide a clean surface. A 1/2 inch wide by 1-3/8 inch deep recess as shown on the drawing shall be constructed for sealant. At all other locations throughout the limits of

the job, construction joints will not be permitted unless approved by the Authority.

3.3.2 Dummy Joints

Dummy joints within the slabs shall be constructed a maximum distance of 10 feet from each other. These joints shall be 1/4 inch to 1/2-inch wide and 1-3/8 inches deep and shall extend from one end of the pavement to the other, in the direction perpendicular to the levee centerline.

3.3.3 Expansion Joints

Expansion joints shall be constructed perpendicular to the levee centerline at 30 foot maximum intervals, where new pavement abuts existing old pavement and at locations where the Contractor stops the pavement operation on any day. Expansion joint filler shall be one continuous piece the full width of each slab (ribbon). Expansion joints shall also be constructed parallel to the levee centerline where the pavement meets the floodwall. Expansion joints shall consist of 1/2 inch thick actual size, expansion joint filler topped with joint sealant, as shown on the drawings. Above the expansion joint filler, to the top surface of the pavement, the joint shall be formed with a 1/2 inch block of wood. This block shall remain in place for 24 hours or longer as determined by the Authority, if block removal operations cause breakage of the pavement.

3.4 FORMING

3.4.1 Form Construction

Forms shall be true to line and grade, mortar tight and sufficiently staked to prevent deformation under load in excess of 1/4 inch in 10 feet. All forms shall be so constructed that they can be removed without damaging the concrete.

3.4.2 Form Coating

Forms shall be coated with a form release agent, which shall be applied shortly before concrete is placed.

3.4.3 Form Removal

Forms shall not be removed for 24 hours after concrete placement, except when otherwise authorized by the Authority.

3.5 PREPARATION FOR PLACING

Concrete placement shall not begin until the entire levee, and cross section has been brought to the lines and grades shown, unless approved by the Authority. Construction joints shall be prepared and the surface shall be clean, damp and free of laitance. Formwork shall be complete. Snow, ice, water, debris and foreign matter shall have been removed. Earth foundations shall be compacted and dressed as specified in Section 31 24 00.00 12 EMBANKMENT. All equipment needed for curing and protection of concrete shall be on hand and in good operating condition. The entire preparation shall be accepted by the Authority Representative prior to placing concrete.

3.6 PRODUCTION OF CONCRETE

3.6.1 General

The equipment used by the Contractor to produce and place concrete shall be capable of doing so at a rate that will prevent the occurrence of cold joints. The Authority Representative shall have free access to the batching and mixing plant at all times. If ready mix concrete is used, the name and location of the batch plant shall be submitted for information.

3.6.2 Storage

Cementitious materials shall be stored in a manner to prevent contamination or the absorption of moisture. Aggregates shall be stored to prevent contamination or segregation. Aggregate stockpiles shall be drained to prevent ponding at the base of the stockpiles.

3.6.3 Batching Equipment

Batching equipment shall conform to the requirements of CPMB-01.9 or ASTM C 94/C 94M; however, rating plates attached to batch plant equipment are not required. The batching controls shall be semi-automatic with interlocks or automatic. The batching system shall be equipped with an accurate recorder or recorders which meet the requirement of CPMB-01.9. The weighing equipment shall conform to the applicable requirements of NIST HB 44, except that the accuracy shall be plus or minus 0.2 percent of scale capacity. The Contractor shall have facilities to measure and record moisture contents of the aggregates and adjust mix proportions to compensate for varying moisture contents. Admixtures shall not be combined with other admixtures prior to their introduction into water or sand.

3.6.4 Mixing

The mixing of concrete and its uniformity shall conform to the requirements of ASTM C 94/C 94M. The materials shall be free from ice, snow, and frozen lumps before entering the mixer. Truck mixers shall be equipped with two counters from which it will be possible to determine the number of revolutions at mixing speed and the number of revolutions at agitating speed. A batch ticket, as specified in ASTM C 94/C 94M, shall be furnished to the Authority Representative for every batch of concrete when delivered to the project.

3.7 CONVEYING

Concrete shall be conveyed from mixer to forms as rapidly as practicable, by methods that will prevent segregation or loss of ingredients. Concrete mixed in stationary mixers and transferred by non-agitating equipment shall be placed within 30 minutes after it has been mixed unless otherwise authorized. When a truck mixer or agitator is used for transporting concrete, the concrete shall be delivered to the site of the work and discharge shall be completed within 1-1/2 hours after introduction of the cement to the aggregate or water.

3.8 PLACING

3.8.1 General

Concrete placement shall not be permitted when in the opinion of the Authority Representative, weather conditions prevent proper placement,

finishing and curing. Placement of concrete shall commence with the bottom slab being placed first, progressing up the levee slope to the top slab unless another order of work is approved by the Authority Representative. The placement shall be carried on at such a rate that the formation of cold joints will be prevented. Concrete shall be worked into the corners and angles of the forms without permitting the materials to segregate. Concrete shall be placed within 15 minutes after it has been discharged from a truck mixer. No waste water or concrete from equipment cleaning shall be disposed of in forms or on completed pavement. The Contractor shall submit to the Authority for approval a diagram showing each designated area to be used for cleaning equipment and trucks of concrete.

3.8.2 Placing Temperature

The ambient temperature of the space adjacent to the concrete placement and the concrete surface to receive the concrete placement during cold weather shall be above 40 degrees F. Concrete, when deposited in the forms during cold weather shall have a temperature of not less than 40 degrees F. When heating is necessary to keep the concrete temperature above 40 degrees F, it shall be regulated so that the concrete temperature does not exceed 75 degrees F. All concrete placed during warm weather shall be delivered to the forms at the coolest temperature that is practicable to produce under current conditions but not above 95 degrees F. Concrete shall contain a retarding admixture if its temperature exceeds 85 degrees F.

3.9 SURFACE FINISH

Finished surfaces shall be free from voids and sand streaks. Plastering over of such imperfections will not be permitted. No floating of surfaces will be required. The surface shall be finished by screeding or any other approved method that will give a rough finish to the concrete. No troweling will be permitted.

3.10 PROTECTION

Immediately after placement, all concrete shall be protected from premature drying and freezing temperatures. All concrete shall be adequately protected from damage. Concrete shall be protected from, the damaging effects of rain for 12 hours, and flowing water for 14 days. Concrete slope pavement damaged by rain or flowing water shall be removed by the Contractor at no cost to the Authority. No repair of damaged slope paving will be allowed. The air and forms in contact with concrete shall be maintained at temperatures above 40 degrees F for at least the first 3 days and at temperatures above freezing for the remainder of the specified curing period. No fire or excessive heat shall be permitted near or in direct contact at any time.

3.11 CURING

All concrete shall be cured with curing compound for 7 days. Curing operations shall commence immediately after the finishing operations have been completed. The curing compound shall be applied when the concrete surface is still damp but not wet with free water. Curing compound shall not be applied during rainfall. The entire surface of the paving shall be sprayed uniformly with curing compound. Curing compound shall be applied under pressure by mechanical sprayers operating at a minimum pressure of 75 pounds per square inch, and at the rate recommended by the curing

compound manufacturer but, in no case greater than 400 square feet per gallon. The spraying equipment shall be of the fully atomizing type equipped so that the compound can be stirred continuously by effective mechanical or other approved means. At the time of use, the compound shall be in a thoroughly mixed condition. Hand spraying of odd widths or shapes and on concrete surfaces exposed by the removal of forms will be permitted. Curing compound shall not be applied to the inside faces of joints to be sealed. Should the film become damaged from any cause within the required curing period, the damaged portions shall be repaired immediately with additional compound. Failure to provide sufficient cover material of the type specified, shall be cause for immediate rejection of all concrete not properly cured.

3.12 FINAL DRESSING

The depression in the floodside slope between the top of pavement and the floodside edge of the crown shall be filled with embankment material compacted in accordance with Section 31 24 00.00 12 EMBANKMENT. The levee embankment adjacent to the pavement shall be flush with the top of the pavement. All areas of the levee, including the crown, damaged by the Contractor's operations shall be smoothly and evenly dressed so that there are no abrupt humps and/or hollows. The embankment shall be brought to not less than the prescribed design cross section at all points. The entire finished surface shall be compacted as described in Section 31 24 00.00 12 EMBANKMENT, paragraph "Compacted Fill." No forms or other foreign material of any description shall be left in the levee. All depressions caused by the removal of forms and foreign matter shall be filled with embankment material and compacted to a density at least equal to that of the adjacent levee.

-- End of Section --

APPENDIX A: REQUEST FOR INFORMATION, CHANGE ORDERS, ACCEPTANCE AND SUBMITTAL REGISTER

ATTACHMENT A1

WBV 14e.2 LEVEE LIFT PRIOR TO ARMORING
Request for Information (RFI)

DATE:

RFI Number:

Summary of RFI by Contractor
Signature:

Response to RFI by Engineer
Signature:

ATTACHMENT A2

CHANGE ORDER NO. __

OWNER: State of Louisiana, Southeast Louisiana Flood Protection Authority - West
CONTRACTOR _____
PROJECT: WBV 14e.2 Levee Lift Prior To Armoring (WBV-14e.2 LEVEE LIFT)
FILE NO: _____
SOLICITATION NO: _____
ENGINEER:

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

-

Description: See attached summary.

Attachments (list documents supporting change):

-

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

RECOMMENDED:

By:_____
Engineer
Date:_____

RECOMMENDED:

By:_____
SLFPA-W Construction Manager
Date:_____

ACCEPTED:

By:_____
Contractor
Date:_____

WBV 14e.2 Levee Lift Prior To Armoring (WBV-14e.2 LEVEE LIFT)

SUMMARY OF CHANGE ORDER NO:_____

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

Justification:

-

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

ATTACHMENT A3

❖ NOT FOR RECORDATION PURPOSES ❖

RECOMMENDATION OF ACCEPTANCE

TO: Southeast Louisiana Flood Protection Authority - West
7001 River Road
Marrero, LA 70072

FROM: _____
_____
_____
Design Firm Name and Address

DATE: _____

PROJECT NAME & NUMBER: _____

SITE CODE: _____ STATE ID: _____ CFMS: _____

CONTRACTOR: _____
_____

ORIGINAL CONTRACT AMOUNT: $ _____

FINAL CONTRACT AMOUNT: $ _____

DATE OF ACCEPTANCE: _____

CONTRACT DATE OF COMPLETION: _____

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

LIQUIDATED DAMAGES PER DAY STIPULATED IN CONTRACT $ _____

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

Signed: _____
DESIGNER

FOR USE OF PROJECT MANAGER:

Signed: _____
PROJECT MANAGER

❖ NOT FOR RECORDATION PURPOSES ❖

ATTATCHMENT A4

SUBMITTAL REGISTER	CONTRACT NO.
TITLE AND LOCATION WBV-14e.2 LEVEE LIFT PRIOR TO ARMORING	CONTRACTOR

ACTIVITY NO.	TRANSMITTAL NO.	SPEC SECT.	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	GOVT OR A/E REVWR CLASSIFICATON	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTIONS		DATE FWD TO APPR AUTH / DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FROM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
		02 41 00	Demolition Plan	1.5													
		01 57 20.00 12	Environmental Protection Plan	1.5													
		01 57 23.00 12	Geotextile Certificate	1.6													
		31 05 19.04 12	Geotextile Samples	1.4(c.)													
			Geotextile Certifications	1.4(d.)													
			Geotextile Work Plan	1.4 (a,b.)													
		32 15 00.00 12	Granular Surfacing Materials Testing	1.5													
		32 92 19.04 12	Seed	1.4.1													
			Turf Establishment Plan	1.4.2													