

**NORTH BEARDSLEE LAKE MARSH
RESTORATION PROJECT
JACKSON COUNTY, MS**

**CONTRACT DOCUMENTS AND
TECHNICAL SPECIFICATIONS**

PREPARED FOR:



**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
515 E. AMITE STREET
JACKSON, MISSISSIPPI 39201**

PREPARED BY:



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JACKSON, MISSISSIPPI 39211
PROJECT No. 16115**

MARCH 2022



2 March 2022

North Beardslee Lake Marsh Restoration Project

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INVITATION FOR BIDS

Project: North Beardslee Lake Marsh Restoration Project, Jackson County, MS

Contracting Agency: Mississippi Department of Environmental Quality

To: Prospective Bidders

1.0 PURPOSE AND STATEMENT OF WORK

The Mississippi Department of Environmental Quality (“MDEQ”, “Agency,” or “State”) is seeking sealed bids for the MDEQ –NORTH BEARDSLEE LAKE MARSH RESTORATION PROJECT (the “Project”). The Project requirements are detailed in this Invitation for Bids and the Contract Documents.

This Project is administered by MDEQ and funded by the National Fish and Wildlife Foundation (“NFWF”) Gulf Environmental Benefit Fund (“GEBF”) Agreement #45721, Utilization of Dredge Material for Marsh Restoration in Coastal Mississippi.

The purpose of this Project is to construct a containment system from dredge sediments obtained from dredge disposal sites in and along the Pascagoula River and other areas, ultimately creating new marsh habitat at the site. The work consists of providing all necessary labor, equipment, and materials to construct approximately 1,200’ of earthen berm containment and approximately 280’ of rock riprap containment dike (and other related appurtenances) located on the western portion of North Beardslee Lake in Jackson County, Mississippi.

The Project requirements are detailed in this Invitation for Bids and the Contract Documents. The Contract Documents include the Section 00 52 15 Agreement, the Standard Contract Terms and Conditions (Attachment F), the Technical Specifications (Divisions 02 through 35, and the Appendices), the Contract Drawings, and this Invitation for Bids (including Attachments), together with any addendum that may be issued through the solicitation process. Following award of the Contract, the Contract Documents will also include the Contractor’s Bid, the Notice of Award, the Notice to Proceed, the bonds required for this Project, the insurance certificates and endorsements required for this Project, and any addenda, Change Orders or modifications that may be issued. The Section 00 52 15 Agreement may be referred to as the “Agreement” or the “Contract” throughout the Contract Documents.

MDEQ is seeking bidders with qualifications, experience, equipment, and labor for the work detailed herein. The selected bidder shall complete all work as specified in the Contract Documents as defined in Article 1 of the Section 00 52 15 Agreement (“Work”).

MDEQ reserves the right to award the Base Bid, or any combination of the Base Bid and Alternates that is most advantageous to the MDEQ. Additionally, MDEQ reserves the right to accept or reject any or all bids and to cancel this solicitation if it is within the best interest of the State of Mississippi.

Under the foregoing premise, the Contract will be awarded to the lowest responsible/responsive bidder whose bid meets the requirements and criteria set forth in this Invitation for Bids. The lowest responsible/responsive bidder is the one who supplies the lowest Bid for the Work as specified on the Bid Form attached hereto as Attachment D and meets all the requirements of Section 2.8, Minimum Bid Requirements, and Section 2.11, Standards of Responsibility. The successful contractor shall have the prior experience constructing in a coastal marsh environment and shall list that experience in Attachment A, List of Prior Experience.

The Contract Documents may be examined at the offices of:

- Mississippi Department of Environmental Quality, 515 E. Amite St., Jackson, MS 39201, (601) 961-5171; or
- Allen Engineering and Science, 6360 I-55 North, Suite 330, Jackson, MS 39211, (601) 291-5566.

To obtain a downloadable copy of the Contract Documents for this Project, please visit www.restore.ms, email Melanie Green at Procurement@mdeq.ms.gov, or call 601.961.5270.

If the funds anticipated for this Project are, at any time, not forthcoming or insufficient, MDEQ reserves the right to terminate the Project and to not award a contract or to discontinue the Project, without damage, penalty, cost, or expenses to MDEQ of any kind whatsoever.

2.0 SUBMISSION INSTRUCTIONS, REQUIREMENTS, CONDITIONS, DEADLINES AND NOTICES FOR BIDS

2.1 Issuing Office

This Invitation for Bids is issued for the State of Mississippi by MDEQ. MDEQ reserves the right, without qualifications to reject all bids not meeting the minimum requirements and to exercise its discretion and apply its judgment with respect to any bid submitted.

2.2 Pre-Bid Meeting

A Pre-Bid Meeting will be held at 11:00 AM, March 18, 2022, via the following online webinar/meeting:

Please join the meeting from your computer, tablet or smartphone.

<https://meet.goto.com/922849629> [meet.goto.com]

You can also dial in using your phone.

United States: **+1 (312) 757-3121**

Access Code: 922-849-629

The purpose of the pre-submittal conference is to allow potential offerors an opportunity to present questions to staff and obtain clarification of the procurement requirements.

Attendance at the Pre-Bid Meeting is not a mandatory requirement for submitting a bid.

2.3 Deadline

Bids must be submitted with one (1) original and one (1) copy; or electronic bids may be submitted to Mississippi's Accountability System for Government Information and Collaboration (MAGIC; 316004919). **All bids must be received by MDEQ no later than 3:00 PM, April 5, 2022.** All bids received after the deadline will be returned unopened. If a bid is to be mailed, bidders should use certified mail with a return receipt guaranteed. MDEQ will not be responsible for mail delays or lost mail.

Bids must be labeled as follows on the exterior of the sealed bid envelope/package (if submitting a written bid), or, provided as an attachment included in an electronic bid submittal (if submitting an electronic bid):

MDEQ – North Beardslee Lake Marsh Restoration Project
Mississippi Department of Environmental Quality
Attention: Melanie Green
515 East Amite Street
Jackson, MS 39201

Bidder's name: _____

Bidder's legal address: _____

Certificate of Responsibility No. _____

SEALED BID – DO NOT OPEN

Bids will be opened in the presence of two (2) or more procurement officials. All written bids shall be recorded and maintained as a public record. Bids will be opened publicly and read aloud at **3:15 PM April 5, 2022**, via the following online webinar/meeting:

Please join the meeting from your computer, tablet or smartphone.

<https://meet.goto.com/366779677> [meet.goto.com]

You can also dial in using your phone.

United States: +1 (872) 240-3311

Access Code: 336-779-677

Each bid must be accompanied by a Bid Bond, Attachment K, provided by a surety licensed to operate in the State of Mississippi by the Mississippi Department of Insurance in the amount of five percent (5%) of the total bid as a bid security naming MDEQ as the beneficiary. The Bid Bond shall be duly executed by the bidder, the surety, and

a registered agent. Each Bid Bond must be accompanied by an appropriate Power of Attorney. Once a Contract has been executed with a successful bidder, the specified time has elapsed so that bids may be withdrawn, or all bids have been rejected, the Bonds of the unsuccessful bidders will be returned. The Bid Bond of the successful bidder will be retained until the Payment Bond and Performance Bond have been executed and approved, and the Contract has been executed, in accordance with Section 2.21 of this Invitation for Bids, after which it will be returned. If the apparent lowest responsible/responsive bidder fails to provide the appropriate Payment Bond, Performance Bond, Tax Bond/Rider, insurance documentation (certificates, and applicable endorsements), or does not execute the Agreement, the Bidder will forfeit his or her Bid Bond.

2.4 Force Majeure Event

If MDEQ is closed for any reason, including but not limited to: Acts of God, strikes, lockouts, riots, acts of war, epidemics, pandemics, governmental regulations superimposed after the fact, fire, earthquakes, hurricanes, tropical storms, floods, or other natural disasters (the "Force Majeure Events"), which closure prevents the delivery of Bids by the advertised deadline, the bid submission deadline shall take place the next business day that MDEQ shall be open and at the previously advertised time. The new date and time of the bid submission deadline, as determined in accordance with this section, shall not be advertised, and all bidders, upon submission of a bid proposal, shall be deemed to have knowledge of and shall have agreed to the provisions of this section. Bids shall be received by MDEQ until the new date and time of the bid deadline as set forth herein. **MDEQ shall not be held responsible for the receipt of any bids for which the delivery was attempted and failed due to the closure of MDEQ as a result of a Force Majeure Event.** Each bidder shall be required to ensure the delivery and receipt of its bid by MDEQ prior to the new date and time of the bid submission deadline.

2.5 Nonresident Bidder

In accordance with Miss. Code Ann. § 31-3-21(3), in the letting of public contracts, preference shall be given to resident bidders, and a nonresident bidder domiciled in a state having laws granting preference to local contractors shall be awarded Mississippi public contracts only on the same basis as the nonresident bidder's state awards contracts to Mississippi contractors bidding under similar circumstances; and resident bidders actually domiciled in Mississippi, be they corporate, individuals, or partnerships, are to be granted preference over nonresidents in awarding of contracts in the same manner and to the same extent as provided by the laws of the state of domicile of the nonresident. **In accordance with Miss. Code Ann. Section 31-3-21(3), when a nonresident bidder submits a bid for a public project, he shall attach thereto a copy of his resident state's current law pertaining to such state's treatment of nonresident contractors. Any bid submitted by a nonresident bidder which does not include the nonresident contractor's current state law shall be rejected and not considered for award. If no law exists, the bidder will include with the bid a statement on letterhead and signed by the same person who signs the *Bid Form* stating that no preference laws exist in that state.**

2.6 MAGIC

Effective July 1, 2014, the State of Mississippi requires vendors to register in Mississippi's Accountability System for Government Information and Collaboration ("MAGIC") for the State to execute a contract and/or pay for services/products (See Attachment E).

2.7 Minority and Women Businesses

MDEQ policy is to promote participation of Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) in the contracts let by MDEQ. The intent of the following provision is to encourage contractors to involve such businesses in a meaningful role in the provision of services under this solicitation.

(A) Offerors and offeror's subcontractors will abide by the following steps to encourage participation by MBE and WBE:

- (1) Including MBE and WBE on solicitation lists;
- (2) Assuring that MBE and WBE are solicited whenever they are potential sources;
- (3) Dividing total requirements, when economically feasible, into small tasks or quantities to permit maximum participation of MBE and WBE;
- (4) Establishing delivery schedules, where the requirements of the work permits, which will encourage participation by MBE and WBE;
- (5) Using the services and assistance of the Small Business Administration and the Office of Minority Business Enterprise of the U.S. Department of Commerce or Mississippi Development Authority's Minority Business Small Business Development Division, as appropriate; OR satisfying the self-certification requirements of this section where appropriate, and
- (6) Including these steps in any subcontracts awarded under the Contract.

(B) If applicable, the bidder shall supply MDEQ with proof of bidder's and bidder's subcontractor's minority status by providing the following prior to contract execution:

- (1) Certification by the Small Business Administration;

- (2) Certification by the Mississippi Development Authority's Minority Business Certification Program; or
- (3) Self-Certification through Notarized affidavit of the MBE/WBE documenting that said business is:
 - (a) Wholly owned or majority controlled by a minority or woman; and
 - (b) Has been doing business in Mississippi for a period of at least six months prior to the provision of work under this Contract.

2.8 Minimum Bid Requirements

Bids shall contain the following minimum information:

- A. One (1) original and one (1) copy shall be submitted; or bids may be submitted electronically to MAGIC; 3160004919.
- B. Fully completed and/or executed copies of Attachments A, C, and D, attached hereto.
- C. The written information for a responsibility determination in accordance with Section 2.11, Standards of Responsibility, in this Invitation for Bids.
- D. A copy of bidder's current Certificate of Responsibility issued by the State of Mississippi for the type of work to be performed under this Invitation for Bids, pursuant to Miss Code Ann. § 31-3-21(1). **The Certificate of Responsibility number must be provided on the exterior of the sealed bid envelope/package, if submitting a written bid, or, provided as an attachment included in an electronic bid submittal, if submitting an electronic bid.**
- E. Proof from the Office of the Secretary of the State of Mississippi demonstrating that the bidder is in good standing to do business in Mississippi.
- F. If the bidder is a non-resident contractor, a copy of bidder's **current** state bidder preference law pertaining to that State's treatment of non-resident contractors, pursuant to Miss. Code Ann. § 31-3-21(3) or a statement on letterhead and signed by the same person who signs the *Bid Form* stating that no preference laws exist in that state. The state of residency of a contractor shall be the same as the corporate office as reported by the Mississippi Secretary of State's office, unless any contractor reflecting a foreign corporate office with the Secretary of State provides a sworn affidavit verifying and stating that it, or its affiliate or parent company, has maintained a permanent full-time office in Mississippi, including the address(es) of such office, for at least two (2) full years prior to the bid consistent with the provisions of Mississippi Code § 31-3-21(c), in which case such contractor shall be considered a resident bidder.
- G. A Certificate of Commitment to Comply with the obligation to provide an employment plan pursuant to Miss. Code Ann. § 31-5-37, which is attached hereto as Attachment I. A copy of § 31-5-37 is attached hereto as Attachment G. A copy of the employment plan that must be submitted within seven (7) days of the award is attached hereto as Attachment H.
- H. A fully completed MBE/WBE Solicitation Form attached hereto as Attachment J, which is addressed in Section 2.7 of this Invitation for Bids.
- I. A Bid Bond, Attachment K, in the amount of five percent (5%) of the bid amount naming MDEQ as the beneficiary and meeting the requirements of Section 2.3 of this Invitation for Bids.

2.9 Response to Inquiries

All questions regarding this Invitation for Bids must be submitted in writing to Melanie Green via email at Procurement@mdeq.ms.gov, by fax at (601) 961-5715, or by mail to **515 E. Amite Street, Jackson, Mississippi 39201** and must be received by MDEQ by March 25, 2022. Questions submitted after this date will not be considered. Bidders shall provide an email address or fax number for MDEQ

to direct the consolidated “question and answer” document. MDEQ answers will be provided in writing and transmitted via the www.restore.ms, email or fax to all prospective bidders who are known to have requested a copy of the bid package. Only answers transmitted in this manner will be considered official and valid by MDEQ. No negotiations, decisions, or actions shall be initiated by any bidder as a result of any verbal discussion with any State or MDEQ representative.

2.10 Proprietary Information/Mississippi Public Records Act

Bids may be made available for public inspection after bid opening. For this reason, confidential or proprietary material should be clearly labeled as such. The classification of an entire bid as proprietary or trade secret is not acceptable and may result in rejection of the bid. Requests to review proprietary information will be handled in accordance with state law and applicable procedures. All disclosures of bid information to interested parties will be made in compliance with MDEQ’s policies and procedures established in accordance with the Mississippi Public Records Act of 1983, Miss. Code Ann. §§ 25-61-1 et seq., and exceptions found in Miss. Code Ann. §§ 25-61-9 and 79-23-1.

2.11 Standards of Responsibility

Factors that will be considered in determining whether the standard of responsibility has been met include whether a bidder has:

A. A satisfactory record of relevant experience (5 points)

Provide the information requested in Attachment A for, at a minimum, five (5) previous projects of like nature to the work solicited under this Invitation for Bids. Like nature projects may include the following:

- i. Marine dredging projects;*
- ii. Experience in the construction of containment dikes;*
- iii. Working with barges and cranes in coastal waters; and/or*
- iv. Compliance experience with environmental permits associated with working on projects in coastal areas similar to the Mississippi Sound.*

B. A commercial working-knowledge in estuarian and/or shallow coastal waters similar to the Mississippi Sound (10 points).

Describe previous experience within the past five (5) years that would be similar to the work solicited under this Invitation for Bids.

C. A satisfactory record of integrity (5 points)

Provide, at a minimum, five (5) references and contact information for persons and/or firms familiar with the business integrity of the bidder.

D. A satisfactory record of performance (5 points)

Provide a listing of all projects within the past five (5) years and identify all such projects that resulted in construction claims associated with defective work, defaulted or required action by the bonding company. A bidder will not be penalized for claims won by the Bidder.

Bidders should submit a written narrative of ten (10) pages or less for factor B, above, and the burden is on the prospective bidder to thoroughly demonstrate their responsibility in all of the above-listed categories. The written narrative pages should be numbered in consecutive order. Attachments A, C, and D will not count against the page number of such written narrative. Any bidder with an overall score of eight (8) points or below, or a score of two (2) points or below in categories A, C and D, or a score of six (6) points or below in Category B, on the above Standards of Responsibility will be deemed non-responsible and will be rejected.

The bidder shall be experienced in work of the type and character defined in the Invitation for Bids. Further, the bidder must have a current Certificate of Responsibility and the classification of contractor's kind of work or projects for which the bidder is qualified shall be so stated in the Certificate of Responsibility. If a bidder fails to supply the requested information concerning responsibility, MDEQ shall base the determination of responsibility upon any available information or may find the bidder non-responsive.

Bidders should clearly mark any information considered to be a trade secret or proprietary data and should expressly request the nondisclosure of same.

Following an evaluation and determination as to which bidders are both responsive and responsible, an award will be made to the lowest bidder in accordance with this Invitation for Bids.

2.12 Waiver of Informalities or Rejection of Bids

MDEQ may waive any informalities or minor defects, or reject any and all bids. Any bid may be rejected in whole or in part when such rejection is determined to be in the best interest of MDEQ. Waivers, when granted, shall in no way modify the Invitation for Bids requirements or excuse a party from full compliance with the Invitation for Bids specifications and other requirements if the party is awarded the Contract. Reasons for rejecting a bid include, but are not limited to:

- A. Failure to comply with the requirements of the Invitation for Bids and any of its Addenda.
- B. Bidder is in arrears on existing contracts with MDEQ or another governing authority or state agency.
- C. Bidder is, anticipates being, or has been within the last five (5) years in litigation, arbitration, or claim with MDEQ or another state agency, governing authority, or other entity of the State of Mississippi.
- D. Bidder has defaulted on a previous contract.
- E. The bid contains unauthorized amendments to the requirements of the Invitation for Bids.
- F. The bid is conditional or qualified.
- G. The bid is incomplete or contains irregularities, which make the bid indefinite or ambiguous.
- H. The bid is not signed by an authorized representative of the party.
- I. The bid contains false or misleading statements or references.
- J. The bidder is determined to be non-responsible.
- K. The bid ultimately fails to meet the announced requirements of the State in some material aspect.
- L. The bid price is clearly unreasonable.
- M. The bid is not responsive, i.e., does not conform in all material aspects to the Invitation for Bids.
- N. The work or materials offered in the bid is unacceptable by reason of its failure to meet the requirements of the specifications or permissible alternative or other acceptability criteria set forth in the Invitation for Bids.
- O. A decision by MDEQ at its discretion to reject bids for the Project, regardless of the low bidder(s).

2.13 Disposition of Bids

All submitted bids become the property of the State of Mississippi.

2.14 Conditions of Solicitation

The release of this Invitation for Bids does not constitute an acceptance of any offer, nor does such invitation in any way obligate MDEQ to execute a contract with any party. MDEQ reserves the right to

accept or reject any or all offers on the basis of the evaluation criteria contained within this document. The final decision to execute a contract with any party rests solely with MDEQ.

Before preparing the bid, all parties should note:

- A. MDEQ accepts no responsibility for any expenses incurred by the bidder in the preparation and presentation of an offer. Such expenses shall be borne exclusively by the bidder.
- B. The award of a contract for any bid is contingent upon the following:
 - 1) Favorable evaluation of the bid;
 - 2) Availability of funds; and
 - 3) Approval of the Public Procurement Review Board, if applicable.
- C. Contracted parties will be required to assume full responsibility for all specified services, materials, labor and equipment, and may subcontract only as specified in Attachment F, "Standard Contract Terms and Conditions," herein.

2.15 Withdrawal of Bids

Any bid may be withdrawn prior to the above-scheduled time for the submission of bids or authorized postponement thereof. Further, no bidder may withdraw a bid within ninety (90) days after the actual date of the bid opening.

2.16 Bid Modification Requests

Any requests to modify bids must be submitted in writing by the primary bidder. All requests for modification must be submitted prior to the submission deadline for the receipt of the sealed bids.

2.17 Addenda to Bid Specifications

MDEQ reserves the right to issue addenda to this Invitation for Bids. If an addendum becomes necessary, MDEQ will provide copies of the addendum to all persons known to have requested a copy of the bid package via the www.restore.ms email, mail, or fax.

2.18 Acknowledgement of Addendum

Bidders shall acknowledge receipt of any addendum to the Invitation for Bids and/or the Contract Documents by identifying the addendum number and date in the space provided for this purpose on the Bid Form attached hereto as Attachment D. The acknowledgement must be received by MDEQ by the time and at the place specified for receipt of sealed bids.

2.19 Information Regarding References

The bidder understands and agrees that MDEQ reserves the right to request information relative to references.

2.20 Performance, Payment, and Tax Bonds

Within seven (7) calendar days after receipt of the Notice of Award and Contract, the successful contractor shall execute and deliver to MDEQ performance and payment bonds, see Attachment K, pursuant to Miss. Code. Ann. § 31-5-51, each in the amount of one hundred percent (100%) of the Contract Price, payable to the Mississippi Department of Environmental Quality but conditioned for the prompt payment of all persons supplying labor or material used in the prosecution of the Work under the Contract, with a surety qualified to do business in Mississippi and listed on the United States Treasury Department's list of acceptable sureties and approved by MDEQ, which shall be required for the faithful performance of the Contract. MDEQ shall be named as the indemnitee in the Performance Bond.

A Tax Bond/Rider, pursuant to Miss. Code Ann. § 31-5-3, securing the prompt payment of taxes, licenses, assignments, contributions, damages, penalties, and interest thereon incurred in connection with the performance of the Contract shall be provided to MDEQ before commencing Work under the Contract. The selected Contractor must coordinate with the Mississippi Department of Revenue in execution of the Tax Bond/Rider, and receipt of any applicable required documentation from the Mississippi Department of Revenue must be provided to MDEQ.

Attorneys-in-fact who sign Payment Bonds, Performance Bonds, and Tax Bonds must file with each Bond a certified and effective dated copy of their power of attorney.

2.21 Award of Contract

If MDEQ makes an award for the Project, MDEQ will do so within ninety (90) days after opening the bids. Should there be any reason why the Contract cannot be awarded within ninety (90) days after bid opening, the time may be extended by written mutual agreement between MDEQ and the successful bidder(s). The Notice of Award shall be accompanied by the Contract. Actions taken by a bidder prior to final execution of such Contract will be at the bidder's OWN RISK and MDEQ will not be liable for such action. The party to whom the Contract is awarded will be required to execute the Contract and obtain the Performance Bond and Payment Bond within seven (7) calendar days from the date when Notice of Award is delivered to the bidder and the Tax Bond shall be provided prior to commencing work under the Contract. In case of failure of the bidder to execute the Contract or submit other required documents, MDEQ may award the Contract to the next lowest and best responsible/responsive bidder whose bid meets the requirements and criteria set forth in this Invitation for Bids, without relieving the bidder initially selected for award and its bonding company providing the Bid Bond from their liability to MDEQ for such failure.

Within thirty (30) days of receipt of an acceptable Performance Bond, an acceptable Payment Bond, an acceptable Tax Bond/Rider, insurance documentation (certificates and applicable endorsements), and the Contract signed by the party to whom the contract was awarded, MDEQ shall sign the Contract. When the Contract is fully executed, an executed duplicate of the Contract shall be returned to the bidder. Should MDEQ not execute the Contract within thirty (30) days from receipt of an acceptable Performance Bond, an acceptable Payment Bond, an acceptable Tax Bond/Rider, insurance documentation (certificates and applicable endorsements) and the Contract, the bidder may, by Written Notice, withdraw bidder's signed Contract. Such notice of withdrawal shall be effective upon receipt of the notice by MDEQ.

Subject to a fully executed Contract, suitable weather, water conditions, and/or other environmental conditions as determined solely by MDEQ, a Notice to Proceed is anticipated to be issued in May 2022.

2.22 Equal Opportunity

Contracts, grants, loans, purchases and all other financial transactions are administered by MDEQ equally to all without regard to race, color, creed, sex, religion, national origin, disability, or age. In addition, the bidder understands that MDEQ is an equal opportunity employer and maintains a policy that prohibits unlawful discrimination based on race, color, creed, sex, age, national origin, physical handicap, disability, or any other unlawful consideration. During the term of the Contract, the contractor must strictly adhere to this policy in its employment practices and provision of services.

2.23 Applicable Laws

The bidder is responsible for complying with all applicable federal, state, and local laws and regulations.

2.24 Governing Law

This solicitation and any resulting contract shall be governed in all respects by the laws of the State of Mississippi, and any litigation with respect thereto shall be brought in the appropriate state or federal courts located in Jackson, Hinds County, Mississippi.

2.25 Certification of Independent Price Determination

Bidder shall execute, notarize and attach the Bidder Statement of Compliance (Attachment C) to its Bid, certifying that the prices submitted in response to the solicitation have been arrived at independently and without any consultation, communication or agreement (for the purpose of restricting competition) with any other bidder or competitor relating to those prices, the intention to submit a bid, or the methods or factors used to calculate the prices proposed.

2.26 Procurement Regulations

Any resulting contract shall be governed by the applicable provisions of the Public Procurement Review Board Rules and Regulations.

2.27 Contract Documents

Bidders are advised that this Invitation for Bids, any issued Addenda and related Contract Documents (including the Specifications and Drawings) and their bid, should it be accepted, will become part of the final Contract. In the event of any *conflict* between the terms appearing in the Contract Documents, the provisions of Article 7 of the Agreement included in this Invitation for Bids shall apply to resolve the conflict.

3.0 PERIOD OF PERFORMANCE

The period of performance for a Contract (“Contract Time”) awarded under this solicitation shall commence upon issuance of a Notice to Proceed by MDEQ. A Notice to Proceed is anticipated to be issued in June 2022.

Liquidated Damages in the amount of \$500 per day shall be assessed for each day the Work is not complete beyond the allowed Contract Time.

4.0 INSURANCE REQUIREMENTS

The successful contractor shall maintain during the time of the Contract the liability insurance coverage required by Section 31 of the Standard Contract Terms and Conditions, or shall require its subcontractors to maintain said coverage, related to the work of the successful contractor and in connection with the Contract.

5.0 RELATIONSHIP OF PARTIES

All parties expressly understand and agree that MDEQ enters into a contract with a contractor based on the work performed pursuant to the Contract and not based on an employer-employee relationship or a joint venture relationship. For all purposes under this Contract:

A successful contractor shall not be deemed in any way, directly or indirectly, expressly, or by implication, to be an employee of MDEQ. A successful contractor will be an independent contractor.

6.0 CONTRACT ADMINISTRATION

The Contract awarded subsequent to this solicitation shall be administered by MDEQ. The MDEQ Engineer for this Project is as follows:

Allen Engineering and Science, Inc.
6360 I-55 North, Suite 330, Jackson, MS 39211

7.0 COMPENSATION

Compensation for the Work performed pursuant to the Contract(s) will be in the form of unit prices and lump sum basis as defined in the Bid Form. Payment Applications may be submitted on a monthly basis in accordance with the Agreement (Section 00 52 15).

8.0 CONTRACT TERMS AND CONDITIONS

An awarded Contract will include, but is not limited to, the Standard Contract Terms and Conditions, a copy of which is attached hereto as Attachment F.

9.0 LIST OF ATTACHMENTS AND FORMS

The following are included as attachments to this Invitation for Bids:

Division 00 – Invitation for Bids and Agreement

Invitation for Bids

Attachment A – List of Prior Experience

Attachment B – Map of Proposed Project Area

Attachment C – Bidder Statement of Compliance

Attachment D – Bid Form

Attachment E – Instructions for MAGIC

Attachment F – Standard Contract Terms and Conditions

Attachment G – A copy of Miss. Code Ann. § 31-5-37, §31-5-33 and §31-7-305

Attachment H – Mississippi First Act – Employment Plan Form for Public Works Projects

Attachment I – Certificate of Commitment to Comply with Miss. Code Ann. § 31-5-37

Attachment J – MBE/WBE Solicitation Form

Attachment K - Bonds

Section 00 52 15 – Agreement

Division 01 – Specifications

Section 01 20 00 Measurement and Payment Procedures

Section 01 29 00 Payment Procedures

Section 01 29 73 Schedule of Values

Section 01 31 00 Project Management and Coordination

Section 01 32 00 Construction Progress Documentation

Section 01 32 23 Surveys and Layout Data

INVITATION FOR BIDS

Section 01 32 33	Photographic Documentation
Section 01 33 00	Submittal Procedures
Section 01 35 43	Environmental Protection
Section 01 40 00	Contractor Quality Control
Section 01 77 00	Closeout Procedures
Section 01 78 00	General Requirements

Division 02 – 49 Technical Specifications

Section 02 00 00	Mobilization - Demobilization
Section 31 05 21	Geotextile and Geogrid
Section 31 05 23	Turbidity Curtains
Section 31 35 19	Erosion Control Matting
Section 32 05 34	Coastal Plantings
Section 35 12 10	Aids To Navigation
Section 35 31 19	Riprap
Section 35 73 13	Berm Material

Appendices

Appendices A – E

Contract Drawings

	Title Page
C0.1 -	Project Location Map, Drawing Index, and General Notes
NB0.1 -	Vicinity Map
NB1.1 -	Existing Conditions Plan
NB1.2 -	Site Plan
NB1.3 -	Planting Plan
NB2.1 -	Typical Sections and Details
NB3.1 -	Phased Dredge Placement Plan

Attachment A
List of Prior Experience

The Bidder must complete this Attachment to include its prior experience in the type of work solicited under this Invitation for Bids.

Date Work Performed: _____

Agency: _____

Agency Contact Name: _____

Agency Contact Phone Number: _____

Name of Project: _____

Address of Project: _____

Scope of Project: _____

Client Name: _____

Client Phone Number: _____

Work Performed by Bidder [] or Subcontractor []

If subcontractor, list subcontractor name: _____

Date Work Performed: _____

Agency: _____

Agency Contact Name: _____

Agency Contact Phone Number: _____

Name of Project: _____

Address of Project: _____

Scope of Project: _____

Client Name: _____

Client Phone Number: _____

Work Performed by Bidder [] or Subcontractor []

If subcontractor, list subcontractor name: _____

Attachment A (continued)

Date Work Performed: _____

Agency: _____

Agency Contact Name: _____

Agency Contact Phone Number: _____

Name of Project: _____

Address of Project: _____

Scope of Project: _____

Client Name: _____

Client Phone Number: _____

Work Performed by Bidder [] or Subcontractor []

If subcontractor, list subcontractor name: _____

Date Work Performed: _____

Agency: _____

Agency Contact Name: _____

Agency Contact Phone Number: _____

Name of Project: _____

Address of Project: _____

Scope of Project: _____

Client Name: _____

Client Phone Number: _____

Work Performed by Bidder [] or Subcontractor []

If subcontractor, list subcontractor name: _____

Attachment A (continued)

Date Work Performed: _____

Agency: _____

Agency Contact Name: _____

Agency Contact Phone Number: _____

Name of Project: _____

Address of Project: _____

Scope of Project: _____

Client Name: _____

Client Phone Number: _____

Work Performed by Bidder [] or Subcontractor []

If subcontractor, list subcontractor name: _____

Date Work Performed: _____

Agency: _____

Agency Contact Name: _____

Agency Contact Phone Number: _____

Name of Project: _____

Address of Project: _____

Scope of Project: _____

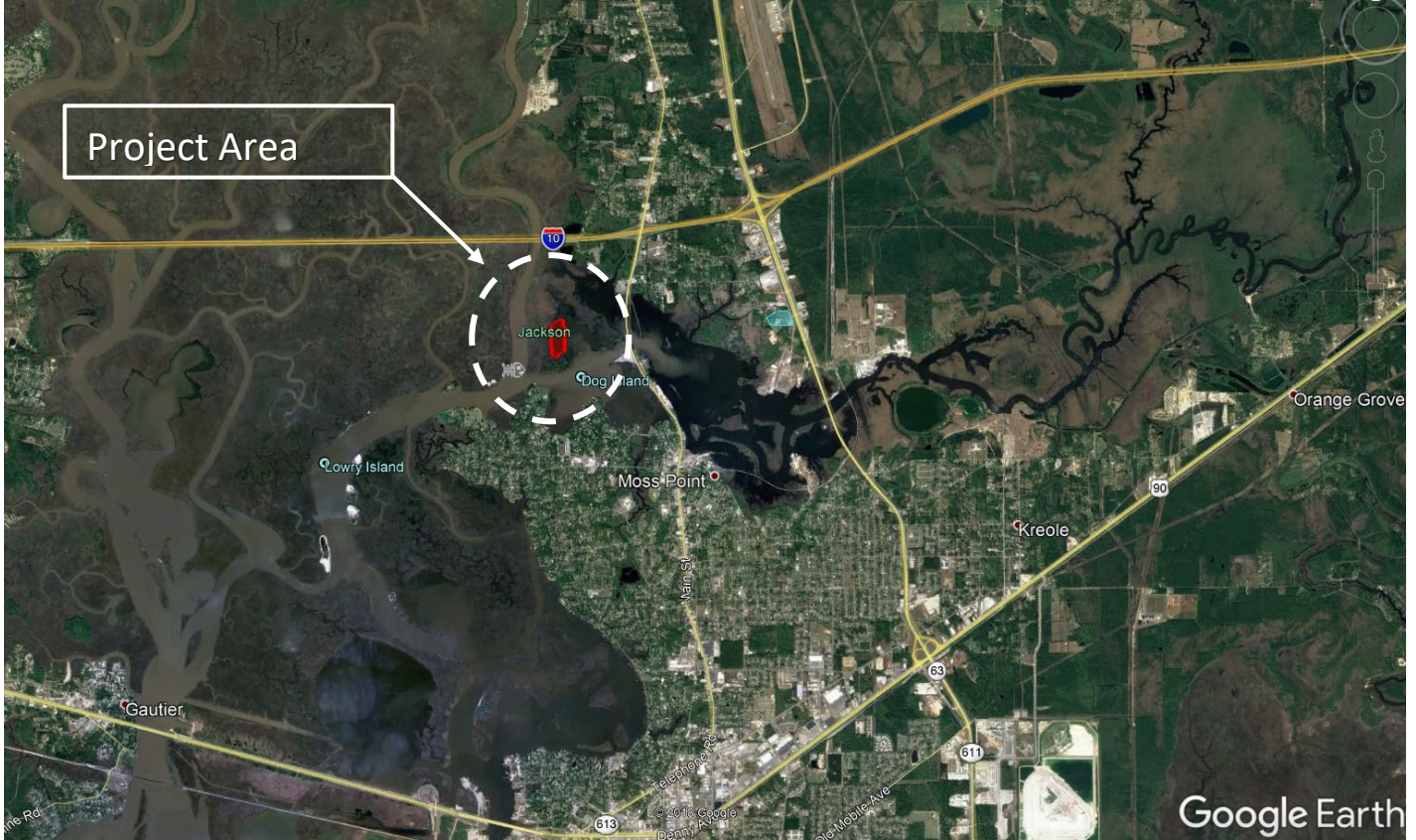
Client Name: _____

Client Phone Number: _____

Work Performed by Bidder [] or Subcontractor []

If subcontractor, list subcontractor name: _____

Attachment B
Map of Proposed Project Area



Attachment C

Bidder Statement of Compliance

State of _____

County of _____

I, _____, individually, and in my capacity as _____ of _____ (Bidder), being first duly sworn, on oath depose and state the following on behalf of the company:

Bidder's Representation Regarding Contingent Fees

The Bidder represents as a part of such Bidder's bid that such Bidder has not retained any person or agency on a percentage, commission, brokerage, or other contingent arrangement to secure this Contract.

Bidder's Non-Collusion Certification

Bidder, nor any of its officers, partners, owners, agents, representatives, employees, suppliers, subcontractors, or parties in interest have not in any way colluded, conspired, or agreed directly or indirectly with any other Bidder, supplier, subcontractor, firm, or person to:

- a) fix prices or prices in the attached Bid or for other Bidders;
- b) fix or make arrangements to restrict land use availability or lease/rental prices for this Bid or for other Bidders; or
- c) fix any overhead, profit or cost elements for this Bid or for other Bidders.

Bidder History, Debarment and Suspension Representations

Bidder certifies that Bidder and its corporate officers, principal owners, managers, auditors, and others in a position of administering governmental funds:

- a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any governmental department or agency;
- b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction;
- c) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- d) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in b) and c) above; and
- e) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Bidder's Representation of No Improper Influence

Bidder further certifies, to the best of its knowledge and belief, that:

- a) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Contract, Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions will be completed and submitted.

No Conflict of Interest

Bidder further certifies that, to the best of its knowledge and belief, there are no present or currently planned interests (financial, contractual, organizational, or otherwise) relating to the work to be performed under any contract or task order resulting from this Bid that would create any actual or potential conflict of interest (or apparent conflicts of interest) (including conflicts of interest for immediate family members: spouses, parents, children) that would impinge on its ability to render impartial, technically sound, and objective assistance or advice or result in it being given an unfair competitive advantage. In this clause, the term "potential conflict" means reasonably foreseeable conflict of interest. The Bidder further certifies that it has and will continue to exercise due diligence in identifying and removing or mitigating, to the State's satisfaction, such conflict of interest (or apparent conflict of interest). Bidder further certifies that it has no conflict of interest with respect to NFWF, MDEQ or the work to be performed (as set forth in the Invitation for Bids and accompanying Bid documents).

By submission of this bid, I have agreed to adhere to **all conditions and requirements**, as set forth in MDEQ's Invitation for Bids and Contract Documents, including all the terms and conditions in the Contract Documents. I further understand that my failure to comply with all requirements and qualifications will result in disqualification of my bid relative to this procurement action. I have submitted appropriate documentation and a completed Contract form(s) as necessary to substantiate this evaluation. If inadequate, my bid will not meet the bid requirements and will be determined to be either non-responsive or non-responsible.

MDEQ reserves the right to reject any and/or all bids and to waive any minor informalities.

Please accept this as my/our formal bid proposal for the complete specifications in all areas as specified by MDEQ.

All of the foregoing is true and correct:

Bidder: _____

Date: _____

Authorized Signature: _____

Name: _____
Typed/Printed

Title: _____

SWORN TO AND SUBSCRIBED before me, this the ____ day of _____, 20____.

NOTARY PUBLIC

My Commission Expires:

[SEAL]

**Attachment D
Bid Form**

North Beardslee Lake Marsh Restoration Project

1. BID RECIPIENT

This Bid is submitted by _____ (hereinafter called "Bidder") doing business as a _____ (insert "a corporation," "an individual" applicable; if a corporation, indicate state of incorporation; or a "joint venture") to:

**Mississippi Department of Environmental Quality
Attention: Melanie Green
515 East Amite St.
Jackson, Mississippi 39201**

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Mississippi Department of Environmental Quality (hereinafter called "MDEQ") in the form(s) included in the Invitation for Bids to perform all Work as specified or indicated in the Invitation for Bids for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Invitation for Bids.

2. BIDDER'S ACKNOWLEDGEMENTS

Bidder accepts all of the terms and conditions of the Invitation for Bids, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for ninety (90) days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of MDEQ.

3. BIDDER'S REPRESENTATIONS

In submitting this Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the Invitation for Bids and the following addenda, receipt of which is hereby acknowledged:

<u>Addendum</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

- B. Bidder has reviewed the requirements to bid this Project and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all laws and regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the work site; information and observations obtained from visits to the work site; the Invitation for Bids; and the site-related reports and drawings identified in the Invitation for Bids with respect to the effect of such information, observations, and documents on (1) the cost, progress,

and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) the Bidder's safety precautions and programs.

- E. Based on the information and observations referred to above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Invitation for Bids.
- F. Bidder is aware of the general nature of work to be performed at the site that relates to the Work as indicated in the Invitation for Bids.
- G. Bidder has given MDEQ written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Invitation for Bids, and the written resolution thereof by MDEQ is acceptable to Bidder.
- H. The Invitation for Bids is generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

4. BID FORM INSTRUCTIONS

All blank spaces for the bid prices must be filled in ink or typewritten, and this Bid Form must be fully completed and executed when submitted. Alterations and erasures of the entries made by bidder shall be initialed by the individual who signed this Bid Form. Bids shall state the legal name of bidder and be signed by the person or persons legally authorized to bind bidder to a contract. Bids submitted by a corporation shall indicate state of incorporation and bear a corporate seal. Bids submitted by an agent of a bidder shall have a current power of attorney attached that certifies the agent's authority to bind the bidder.

Measurement and payment procedures corresponding to the Bid Form can be found in Section 00 52 15 Agreement and Section 01 20 00 Measurement and Payment Procedures, and Section 01 29 00 Payment Procedures of the Contract Documents.

Bid Form
North Beardslee Lake Marsh Restoration Site
Jackson County, Mississippi

BASE BID

General Bid Items

Item No.	Bid Item	Unit	Estimated Quantity	Unit Price	Item Bid Price
1	Navigational Signage	LS	1		
2	Floating Turbidity Curtain	LF	3,750		

Phase 1 - Containment Berm Construction to M.L.L.W.
--

Item No.	Bid Item	Unit	Estimated Quantity	Unit Price	Item Bid Price
3	Mobilization / Demobilization	LS	1		
4	Ballasted Composite Geogrid	SY	23,400		
5	Berm Material	CY (LVM)	40,000		
6	Rock Riprap	Ton	3,000		

Phase 2 - Post Settlement Berm Development

Item No.	Bid Item	Unit	Estimated Quantity	Unit Price	Item Bid Price
7	Mobilization / Demobilization	LS	1		
8	Berm Material	CY (LVM)	12,000		
9	Erosion Control Blanket	LF	1,260		
10	Coastal Plantings- Black Needlerush	SF	7,046		
11	Coastal Plantings- Saltmarsh Hay	SF	38,425		
12	Coastal Plantings- Smooth Cordgrass	SF	29,430		
13	Rock Riprap	Ton	3,500		

Total Base Bid (General Bid Items + Phases 1 & 2)
--

Alternative #1 - Pre-Vegetated Erosion Control Slope Protection
--

Item No.	Bid Item	Unit	Estimated Quantity	Unit Price	Item Bid Price
1	Pre-Vegetated Erosion Control Mat	LF	1,260		
2	Erosion Control Blanket (15' Strip)	LF	-1,260		
3	Coastal Plantings- Smooth Cordgrass	SF	-14,715		

Alternative #1 Total

Total Base Bid (General Bid Items + Phases 1 & 2) + Alternative #1

Note: Bids shall include sales tax and all other applicable taxes and fees. All blanks shall be filled in. Total amount of Bid shall be the sum of the Items listed under the Item Bid Price column (for each bid option). **MDEQ reserves the right to accept or reject any or all bids.** MDEQ will not be responsible for any costs, other than what is provided in the Contract/Bid Form during the Contract Time, including the consolidation period.

For the purposes of this Invitation for Bids, MDEQ reserves the right in its sole discretion to award a Contract to the lowest responsive/responsible bidder that provides EITHER the lowest "Total Base Bid (General Bid Items + Phase 1 and 2)" OR the lowest "Total Base Bid (General Bid Items + Phase 1 and 2) + Additive Alternative #1 Total". Award will be made to only one Bidder based upon the Bid as applicable from this Bid Form and determination of the lowest and best, responsive, responsible bidder according to the Invitation for Bids.

In case of discrepancy between the sum of the Item Bid Prices and "the Total Base Bid (Phase 1 and 2)" OR the "Total Base Bid (Phase 1 and 2) + Additive Alternative #1 Total", the total sum of the Item Bid Prices provided under the applicable "Total Base Bid (General Bid Items + Phase 1 and 2)" and the "Total Base Bid (General Bid Items + Phase 1 and 2) + Additive Alternative #1 Total" will control for determining total bid amount.

1. The Bidder agrees that the Work shall be completed within the Contract Time in the Agreement.
2. The following documents are attached to and made a condition of this Bid:
 - a. Bid Security (surety bond, cashier's check, or certified check)
 - b. Power of Attorney (For Surety Bond only)
 - c. Authority to Execute Contract (any corporate employee other than the president or vice-president)
 - d. A list of all subcontractors, surveyors and suppliers associated with this Bid that are anticipated by Bidder to contribute over \$5,000 worth of services or supplies to complete the Work identified on this Bid Form. MDEQ shall not be responsible for payment for any services or supplies provided by any such subcontractor, surveyor or supplier not identified.

The undersigned, having read and understood the Bidding Documents and examined the Project site and adjoining areas, and being familiar with the obstacles and conditions that will affect proposed Work, hereby offers and agrees to furnish all labor, equipment and materials and to perform all the Work required for the **North Beardslee Lake Marsh Restoration Project** as described in this Invitation for Bids in accordance with the Contract Documents and at the prices stated in the preceding Bid Schedule.

This Bid is submitted by:

If Bidder is:

An Individual

Name _____
(typed or printed):

By: _____
(Individual's Signature)

Doing business as: _____

State Contractor License No. _____

A Partnership

Partnership Name: _____
(typed or printed)

By: _____
(Signature of General Partner – attach evidence of authority to sign)

Name: _____
(typed or printed)

State Contractor License No. _____

A Corporation

Corporation Name: _____

(Seal)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____

(Signature, attach evidence of authority to sign)

Name: _____

(typed or printed)

Title: _____

(Corporate Seal)

Attest: _____

Date of Qualification to do business in Mississippi is ___/___/___.

State Contractor License No. _____

A Joint Venture

Name of Joint Venture: _____

First Joint Venture Name: _____
(Seal)

By: _____
(Signature of first Joint Venture Partner, attach evidence of authority to sign)

Name: _____
(typed or printed)

Title: _____
(Each Joint Venture Partner must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address: _____

Phone No.: _____ Fax No. _____

Email: _____

Submitted on _____, 20____

State Contractor License No. _____

**Attachment E
Instructions for MAGIC**



TO: Vendors for the State of Mississippi
FROM: Mississippi Department of Environmental Quality
Office of Restoration
SUBJECT: Instructions to register as Supplier

Effective July 1, 2014, the State of Mississippi requires vendors to register in MAGIC for the State to execute a contract and/or pay for services/products.

Please complete the online registration at this address:

https://sus.magic.ms.gov/sap/bc/webdynpro/sapsrm/wda_e_suco_sreg?sap-client=100#

Should you have any questions concerning the registration process, please call the Department of Finance and Administration at 601-359-3538.

Thank you for your time and attention to this matter.

Mississippi Department of Environmental Quality
Office of Restoration

**Attachment F
Standard Contract Terms and Conditions**

APPLICABLE TO ALL WORK

1. Availability of Funds.

It is expressly understood and agreed that the obligation of MDEQ to proceed under this Agreement is conditioned upon the receipt of funds from the National Fish & Wildlife Foundation ("NFWF") and/or the appropriation of funds by the Mississippi State Legislature for this Project. If the funds anticipated for the continuing fulfillment of the Agreement are, at any time, not forthcoming or insufficient, either through the failure of the federal government to provide funds or of the State of Mississippi to appropriate funds or the discontinuance or material alteration of the program under which funds were provided or if funds are not otherwise available to MDEQ, MDEQ shall have the right upon ten (10) working days written notice to the Contractor, to terminate this Agreement without damage, penalty, cost or expenses to MDEQ of any kind whatsoever. The effective date of termination shall be as specified in the notice of termination.

2. Representatives.

For all matters pertaining to the Work, unless otherwise provided, MDEQ will be represented by its Executive Director, or a designated representative, in all administrative matters and by the designated "Engineer" in all technical matters. When MDEQ is referenced singularly in these Standard Contract Terms and Conditions, it shall be construed to include MDEQ's Executive Director and its designated representative(s) for the Project.

Before commencement of the Work, Contractor shall notify MDEQ and Engineer of the name of the person(s) ("Contractor's Representative") who shall be on-site at all times when the Work is being performed, who shall directly superintend the Work and shall be the duly authorized Representative of Contractor empowered to make decisions for, and on behalf of Contractor, and to execute Change Orders on behalf of Contractor, and to whom orders and directions by MDEQ and Engineer to Contractor may be given.

At all times when any performance of the Work at any site is being conducted by any employee or representative of the Contractor or his subcontractors, the Contractor shall have a Contractor's Representative present at each site who has the capability of receiving instructions in the English language, fluently speak the English language and can explain the Work operations to persons performing the Work in the language that those performing the Work are capable of understanding. MDEQ or its designated Engineer shall have the right to determine whether the proposed representative has sufficient technical and bilingual capabilities, and the Contractor shall immediately replace any individual not acceptable to MDEQ or its designated Engineer.

3. Authority of Engineer.

If designated by MDEQ, the designated Engineer shall decide any and all questions which may arise as to (1) the quality or acceptability of materials furnished and the Work performed, (2) the manner of performance of the Work, and (3) interpretation of technical matters within the Contract Documents.

4. Authority to Contract.

Contractor warrants (a) that it is a validly organized business with valid authority to enter into this Agreement; (b) that it is qualified and registered to do business and is in good standing in the State of Mississippi; (c) that entry into and performance under this Agreement is not restricted or

prohibited by any loan, security, financing, contractual, or other Agreement of any kind, and (d) notwithstanding any other provision of this Agreement to the contrary, that there are no existing legal proceedings, either voluntary or otherwise, which may adversely affect its ability to perform its obligations under this Contract.

5. Employment Status.

Contractor shall, at all times, be regarded as and shall be legally considered an independent contractor and shall at no time act as an agent for MDEQ. Nothing contained herein shall be deemed or construed by MDEQ, Contractor, or any third party as creating the relationship of principal and agent, master and servant, partners, joint ventures, employer and employee, or any similar such relationship between MDEQ and Contractor. Neither the method of computation of fees or other charges nor any other provision contained herein nor any acts of MDEQ or Contractor hereunder creates, or shall be deemed to create a relationship other than the independent relationship of MDEQ and Contractor.

Contractor's personnel shall not be deemed in any way, directly or indirectly, expressly or by implication, to be employees of MDEQ. Neither Contractor nor its employees shall, under any circumstances, be considered servants, agents, or employees of MDEQ, and MDEQ shall be at no time legally responsible for any negligence or other wrongdoing by Contractor, its servants, agents, or employees. MDEQ shall not withhold from the Contract payments to Contractor any federal or state unemployment taxes, federal or state income taxes, Social Security tax, or any other amounts for benefits to Contractor. Further, MDEQ shall not provide to Contractor any insurance coverage or other benefits, including Worker's Compensation, normally provided by MDEQ or the State for its employees.

6. Contractor's Personnel.

MDEQ shall, throughout the life of the Contract, have the right of reasonable rejection and approval of staff or subcontractors assigned to the Work by Contractor. If MDEQ reasonably rejects staff or subcontractors, Contractor must provide replacement staff or subcontractors satisfactory to MDEQ in a timely manner and at no additional cost to MDEQ. The day-to-day supervision and control of Contractor's employees and subcontractors is the sole responsibility of Contractor. Contractor must receive pre-approval from MDEQ prior to subcontracting with any company and/or individual not listed as a subcontractor in the bid submittal. In order to receive pre-approval, Contractor shall complete and submit a Request to Subcontract form provided by MDEQ.

7. Drug-Free Work Force.

- A. The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. MDEQ and the Engineer will not be responsible for implementing, overseeing or enforcing the Contractor's drug-free work force program.
- B. Contractor programs shall include the following, or appropriate alternatives:
 - i. Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;
 - ii. Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;
 - iii. Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

- iv. Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:
 - a. The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the Work being performed under the Contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.
 - b. In addition, the Contractor may establish a program for employee drug testing
 - 1. When there is a reasonable suspicion that an employee uses illegal drugs;
 - 2. When an employees has been involved in an accident or unsafe practice;
 - 3. As part of or as a follow-up to counseling or rehabilitation for illegal drug use; or
 - 4. As part of a voluntary employee drug testing program.
 - c. The Contractor may establish a program to test applicants for employment for illegal drug use.
- C. Contractor shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractor shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.
- D. The provisions of this section pertaining to drug testing program shall not apply to the extent that they are inconsistent with state or local law.

8. Notification of Ownership Changes.

Contractor shall make the following notifications in writing:

- A. When Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, Contractor shall notify MDEQ within 30 days.
- B. Contractor shall also notify MDEQ within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.
- C. Contractor shall:
 - a. Maintain current, accurate, and complete inventory records of assets and their costs;

- b. Provide MDEQ or its designated representative ready access to records reasonably related to the performance of the Work performed hereunder upon request;
- c. Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of Contractor's ownership changes; and
- d. Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

9. Examination of Site, Plans and Specifications.

It is the sole responsibility of Contractor to visit the site of the Work and to thoroughly examine the Contract Documents and to fully acquaint Contractor with the conditions to be encountered as to the character, quality and quantity of Work to be performed and materials to be furnished. Contractor shall fully understand the facilities, difficulties and restrictions that may be encountered in performing the Work.

By execution of the Contract, Contractor represents to MDEQ that Contractor has made the necessary examination referred to in the preceding paragraph and can perform the Work for the Contract Price.

Contractor is advised that any report or other information (hereafter called "Additional Information") given to Contractor by MDEQ or Engineer or obtained by Contractor from the records of MDEQ (except for the Contract Documents) is not a part of the Contract unless specifically referenced to be used in conjunction with the Contract and is given solely for the convenience of Contractor for whatever use Contractor may wish to make of it. It is expressly understood and agreed that MDEQ assumes no responsibility whatsoever in respect to the sufficiency or accuracy of the Additional Information or of any interpretations made thereof by any person. Availability or use of such additional information shall not be a waiver of Contractor's duty to examine the site of the Work, and Contractor is cautioned to make such independent investigation as Contractor deems necessary to satisfy Contractor as to the conditions to be encountered in the performance of the Work, including but not limited to: (1) conditions bearing upon transportation, disposal, handling and storage of materials; (2) the availability of labor, water, electric power and roads; (3) uncertainties of weather, tides or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) other site conditions that may affect the Work performance.

10. Interpretation of Plans and Specifications.

Should it appear that the Work to be done, or any matter relative thereto, is not sufficiently detailed or explained in the Contract Documents, Contractor shall apply in writing to the Engineer for such further explanations as may be necessary for Contractor to accomplish the Work, and Contractor shall conform to such explanation or interpretation of the Contract by Engineer so far as may be consistent with the intent of the Contract Documents. In the event of doubt or question relative to the true meaning of the Contract Documents as explained or interpreted by the Engineer, reference shall be made to MDEQ, whose decision thereof shall be final.

In the event there is a discrepancy between the Specifications and the Plans or Drawings, the Drawings take precedence over the Specifications. In the event of any discrepancy between any Plans or Drawing and the figures written thereon, the figures shall be taken as correct.

11. Inspection.

MDEQ and Engineer or its designee shall at all times have access to the Work during construction and shall be furnished with every reasonable facility for obtaining full knowledge respecting the progress, workmanship and character of materials used and employed in the Work.

Whenever Contractor varies the period during which Work is carried on each day, Contractor shall give due notice to and obtain approval from MDEQ and Engineer so that proper inspection may be provided. Any Work done in the absence of Engineer or Engineer's designee will be subject to rejection.

The inspection of the Work shall not relieve Contractor of any of Contractor's obligations to fulfill the Contract as prescribed. Defective Work shall be made good, and unsuitable materials may be rejected, notwithstanding the fact that such defective Work and unsuitable materials have been previously overlooked by Engineer in inspection and accepted for payment.

12. Public Convenience and Safety.

Contractor shall so conduct its operations and Work as to cause the least possible obstruction and inconvenience to public traffic. Contractor shall furnish, erect, and maintain such fences, barriers, lights, temporary and permanent aids to navigation, notice to fishermen, warning and directional signs as deemed necessary by Engineer to give adequate warning to the public at all times of the construction and of any dangerous conditions to be encountered as a result thereof, and Contractor shall also erect and maintain such signs as may be furnished by MDEQ.

All equipment shall be fully equipped with marine safety equipment as required by applicable state or federal law. Contractor shall have a program in place for inspecting and documenting the condition of equipment used on the Project and shall certify that the equipment is in compliance with applicable Occupational Safety and Health Administration (OSHA) and United States Coast Guard inspection requirements. A copy of such certification shall be submitted to MDEQ prior to mobilization.

13. Removal of Defective and Unauthorized Work.

All Work which is defective in its construction or deficient in any way of the requirements of the Contract, or Work done by Contractor that is considered by MDEQ to create a condition that threatens the health, safety, or welfare of the citizens and/or employees of the State of Mississippi or MDEQ, shall be remedied, or removed and replaced by Contractor in an acceptable manner, and no compensation will be allowed for such correction.

Any Work done beyond the Plans or Specifications, or established by Engineer, or any extra Work done without the written authority of MDEQ, will be considered as unauthorized and Contractor will not be compensated. Furthermore, any material that is deposited in places not designated or approved by the Engineer or MDEQ may be required to be removed, and the Contractor will be required to deposit such misplaced material where directed at his expense. Additional clean-up and environmental damage mitigation requirements may be directed by MDEQ. Such efforts will be entirely at the expense of the Contractor and any fines or penalties will be the responsibility of the Contractor.

Upon failure on the part of Contractor to comply forthwith with any order of MDEQ or Engineer made under the provisions of this Section or Sections 3 or 21, MDEQ shall have authority to cause the defective Work to be remedied, or removed and replaced, and unauthorized Work to be removed, and to deduct the costs thereof from any moneys due or to become due the Contractor.

14. Contractor's Responsibility for Work.

Until written final acceptance of the Work by MDEQ, Contractor shall use all commercially reasonable means to secure and protect the Work from injury, loss or damage to all or any part thereof by an actual or anticipated Force Majeure Event, as that term is defined in Section 23 of the Standard Contract Terms and Conditions, whether arising from the execution of the Work, mobilization and demobilization or otherwise. Contractor will not be compensated for any costs

associated with procuring, utilizing or carrying out commercially reasonable means to secure and protect the Work from an actual or anticipated Force Majeure Event.

In the event the Work or any portion thereof is damaged or destroyed by a Force Majeure Event, Contractor shall rebuild, repair, restore and make good all damage to such Work. Without limiting the foregoing, Contractor shall not be responsible for payment for loss or damage to Work or any portion thereof that is considered "Completed Work" proximately caused by a Force Majeure Event. For purposes of this Section 14, "Completed Work" means Work or any portion thereof that has been surveyed by Contractor and verified by Engineer as being compliant with the Contract Drawings, including, but not limited to, the design sections and details shown in the Contract Drawings. Payment for additional fill material to rebuild, repair or restore damage to Completed Work shall be made in accordance with the submitted Attachment D, Contractor's Schedule of Prices for Base Bid. After all Force Majeure Events, Contractor shall survey all "Completed Work" to identify damaged locations, calculate volumes to repair damages and determine methods for repair. Contractor shall submit a correction plan to Engineer for approval prior to proceeding with any repair work. All repairs and additional pay materials shall be approved by Engineer.

Notwithstanding, and prior to final acceptance of the Work by MDEQ in accordance with Section 1.05 of 01 77 00 Closeout Procedures, Contractor shall be responsible for and bear the entire expense of rebuilding, repairing, restoring and making good any damage or loss to all Work or any portion thereof that is not considered, in MDEQ's sole discretion, "Completed Work" as defined herein.

15. Responsibility for Damage.

During the progress of the Work or any time before final acceptance, MDEQ and Engineer shall not be liable to Contractor for any loss or damage to the Work or any part thereof, or to any material or equipment used or to be used in performing the Work or for injury or damage to any person (including workers) or damage to property from any cause.

Until final acceptance of the Work by MDEQ in accordance with Section 1.05 of 01 77 00 Closeout Procedures, protection of the Work and materials and equipment used thereon shall be the sole responsibility of Contractor. Notwithstanding the foregoing, Contractor shall not be responsible for payment for loss or damage to "Completed Work" proximately caused by a Force Majeure Event, as those terms are defined in Sections 14 and 23 of the Standard Contract Terms and Conditions.

16. Ownership of Documents and Work Products.

MDEQ shall own all documents, files, reports, work papers and working documentation, electronic or otherwise, created in connection with the Contract, except for Contractor's internal administrative and quality assurance files and internal documents. After giving thirty (30) days advance written notice to MDEQ, Contractor shall deliver such documents and work papers to MDEQ upon termination or completion of the Contract and shall certify such delivery in writing to MDEQ. The foregoing notwithstanding, Contractor shall be entitled to retain a set of such work papers for its files. Contractor shall be entitled to use such work papers only after receiving written permission from MDEQ and subject to any copyright protections.

Except as needed to perform hereunder, the Contractor is prohibited from use of the above described information and/or materials without the express written approval of MDEQ.

17. Copyrights.

Contractor agrees that MDEQ shall determine the disposition of the title to and the rights under any copyright by Contractor or employees on copyrightable material first produced or composed under this Contract. Further, Contractor hereby grants to MDEQ a royalty-free, nonexclusive, irrevocable license to reproduce, translate, publish, use and dispose of, and to authorize others to do so, all copyrighted (or copyrightable) work not first produced or composed by Contractor in the

performance of this Contract but which is incorporated in the material furnished under the Contract. This grant is provided that such license shall be only to the extent Contractor now has, or prior to the completion of full final settlements of Agreement may acquire, the right to grant such license without becoming liable to pay compensation to others solely because of such grant.

18. Record Retention and Access to Records.

Provided Contractor is given reasonable advance written notice and such inspection is made during normal business hours of Contractor, the State or any duly authorized representatives shall have unimpeded, prompt access to any of Contractor's books, documents, papers, and/or records which are maintained or produced as a result of the Project for the purpose of making audits, examinations, excerpts, and transcriptions. All records related to this Contract shall be retained by Contractor for ten (10) years after final payment is made under this Contract and all pending matters are closed; however, if any audit, litigation or other action arising out of or related in any way to this Project is commenced before the end of the ten (10) year period, the records shall be retained for one (1) year after all issues arising out of the action are finally resolved or until the end of the ten (10) year period, whichever is later.

However, the Contractor is not required to retain the above-mentioned materials for the ten-year period prescribed in this Section and Section 19 only if all of the following conditions are satisfied:

- A. The Contractor has provided **all** of the documents described above to MDEQ prior to the expiration of the ten (10) year retention period and a certification stating the same is simultaneously provided in writing to MDEQ;
- B. No audit, litigation, or other action arising out of or related in any way to this Project is commenced before the Contractor provides the records and corresponding certification to MDEQ, in which case, MDEQ shall retain the records until all issues arising out of the action(s) are finally resolved; and
- C. The Contractor provides MDEQ a minimum of thirty (30) days' written notice before providing the above-mentioned records and corresponding certification.

19. Right to Audit.

Contractor shall maintain such financial records and other records as may be prescribed by MDEQ or by applicable federal and state laws, rules, and regulations. Contractor shall retain these records for a period of ten (10) years after final payment or until they are audited by MDEQ, whichever event occurs first. These records shall be made available during the term of the Contract and the subsequent ten-year period for examination, transcription, and audit by the Mississippi State Auditor's Office, its designees, or other authorized bodies.

20. Third Party Action Notification.

Contractor shall give MDEQ immediate notice in writing of any action or suit filed, and prompt notice of any claim made against Contractor by any entity that may result in litigation related in any way to the Contract.

21. Orders of Engineer.

Whenever it is desirable by the Engineer and MDEQ to give Contractor directions concerning the Work, orders will be given in writing to Contractor by delivery to Contractor's representative, or in the representative's absence, to Contractor's on-site superintendent or foreman in charge of the particular Work in reference to which the order is given, and such written orders shall be binding on Contractor and Contractor shall comply therewith.

Any provision of the Contract notwithstanding, all orders, directions or interpretations of the Engineer and MDEQ to Contractor shall be in writing and shall be given to Contractor promptly after requested by Contractor.

Contractor shall not be bound to follow any orders, directions or interpretations of Engineer that are not in writing. MDEQ shall not be liable to Contractor for Work performed by Contractor in reliance on verbal orders of Engineer and neither shall such reliance relieve Contractor from the responsibilities of Contractor set forth in the Contract.

If Contractor believes that the order issued by the Engineer entitles Contractor to a change in either the Contract Price or the Contract Time, or both, Contractor shall give Engineer and MDEQ written notice of a request for a change order within two (2) days after receipt of the order by the Engineer. The written request shall state the requested change in Contract Price, or extension of the Contract Time, and shall detail the basis for the request. Upon such a request, Contractor shall not be required to carry out the order of the Engineer pending the execution of a Change Order unless Contractor is otherwise directed in writing. If Contractor has requested a Change Order and is ordered to proceed with the Work before a Change Order is executed, such proceeding with the Work shall be without prejudice to the Contractor's right, if any, to request equitable adjustment or an extension of time.

22. Change Orders.

A. Generally, MDEQ may order changes in the services consisting of additions, deletions, or other revisions within the general scope of the Contract. No claims may be made by Contractor that the scope of the Project or of Contractor's services has been changed, requiring changes to the amount of compensation to Contractor or other adjustments to the Contract, unless such changes or adjustments have been made by written amendment to the Contract signed by MDEQ and Contractor. If Contractor believes that any particular work is not within the scope of the Project, is a material change, or will otherwise require more compensation to Contractor, Contractor must immediately notify MDEQ in writing of this belief. If MDEQ believes that the particular work is within the scope of the Contract as written, Contractor will be ordered to and shall continue with the Work as changed and at the cost stated for the services within the Contract.

B. Procedures. The parties shall initiate a Change Order as follows:

i. Proposed by MDEQ/Engineer.

MDEQ or Engineer may initiate changes by submitting a proposed Change Order to Contractor. The request will include:

- a. Detailed description of the change, products, and location of the change in the Project;
- b. Supplementary or revised Drawings and Specifications;
- c. The projected time span for making the change and a specific statement as to whether overtime work is, or is not authorized;
- d. A specific period of time during which the requested price will be considered valid; and
- e. Such request is for information only, and is not an instruction to execute the changes or to stop Work in progress.

ii. Proposed by Contractor.

Contractor may initiate changes by submitting a written notice to MDEQ's Engineer, or directing to MDEQ in the absence of a designated Engineer, containing:

- a. Description of the proposed changes;
- b. Statement of the reason for making the changes;
- c. Statement of the effect on the Contract Sum and the Contract Time;
- d. Statement of the effect on the work of separate contractors; and
- e. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

C. Documentation and information supporting Change Order.

- i. The Contractor shall support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow MDEQ or its Engineer to evaluate the quotation.
- ii. The Contractor will provide the following additional data to support time and cost computations:
 - a. Labor required for Contractor and sub-contractors;
 - b. Equipment required by Contractor and sub-contractors;
 - c. Products and materials required by Contractor and sub-contractors, including the recommended sources of purchase and unit cost and the quantities required;
 - d. Overhead (inclusive of insurance, bonds and taxes) and profit on labor by the Contractor and sub-contractors;
 - e. Overhead (inclusive of insurance, bonds and taxes) and profit on equipment by the Contractor and sub-contractors;
 - f. Credit for work deleted from Contract, similarly documented; and
 - g. Justification for any change in Contract Time.

D. Form of Change Order.

- i. The party initiating the request for a Change Order shall prepare the request on a form provided by MDEQ.
- ii. A Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- iii. A Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

- iv. MDEQ and its Engineer, if designated for the Project, will sign and date the Change Order as authorization for the Contractor to proceed with the changes.
- v. Contractor will sign and date the Change Order to indicate agreement with the terms therein.
- vi. Changes in price will be based on:
 - a. Unit prices already established in the Bid Form;
 - b. Negotiated unit prices for items not previously established in the Bid Form;
or
 - c. Negotiated lump sum prices for items not previously established in the Bid Form.

For negotiated unit or lump sum prices for items not previously established in the Bid Form, the total markup for profit and overhead for the Contractor, including all subcontractors and/or vendors shall not exceed fifteen percent (15%).

Changes in Contract Time will be justified based on the Extension of Contract Time provision below.

E. Final Summary Change Order.

- i. At the conclusion of the Project, the Engineer will perform a final quantity estimate of all unit price items and submit final quantities to the Contractor for review and verification.
- ii. After mutual acceptance of final quantities, the Engineer will prepare a summary Change Order that reflects all actual installed and accepted quantities.
- iii. MDEQ and Contractor will sign and date the Final Summary Change Order to indicate their agreement with the terms therein.

F. Work Order Directive.

A Work Order Directive is a written order, instructions, or interpretations, signed by Engineer making minor changes in the Work not involving a change in Contract Sum or Contract Time.

23. Extension of Contract Time.

A. Time Extension

- i. The time within which to complete the Contract shall be extended by MDEQ for a period of time, as may be reasonably necessary for Contractor to resume work, upon the occurrence of any of the following events: acts of God; strikes, lockouts, riots, acts of war, epidemics, pandemics, fire, earthquakes, hurricanes, tropical storms, floods or other natural disasters (a "Force Majeure Event").

- ii. Notwithstanding the foregoing, subparagraph (i) above, the time within which to complete the Contract may be extended by MDEQ if any of the following two (2) requirements are met;
 - a. The delay is the result of documented causes beyond the control of Contractor or its Subcontractors or suppliers, including, but not limited to, unusually severe weather conditions not giving rise to a Force Majeure Event; or
 - b. Negotiated additional time for new work activities not included in the original Contract.
- iii. In the circumstances described in either subparagraph 23(A)(ii)(a) or (A)(ii)(b), Contractor shall notify the Engineer in writing within ten (10) days from the beginning of any such delay period of the cause of the delay and request an extension of the time within which to complete the Contract by reason of the delay and specify the length of such requested extension in accordance with the Change Order provisions above.
- iv. MDEQ or its Engineer, upon investigation, may grant an increase in the Contract Time in accordance with the Change Order provisions above. MDEQ may grant an increase in the Contract Time for unusually severe weather as described in subparagraph (ii)(a) above in accordance with subparagraph vi below.
- v. Contractor shall not be entitled to any increase in the Contract Price and waives any claim for damages as a result of any delay caused by such circumstances described in Section 23(A)(ii)(a) or (A)(ii)(b),
- vi. This provision specifies the procedure for determination for time extensions for unusually severe weather as described in subparagraph (ii)(a) above. In order for MDEQ to award a time extension under this clause, the following conditions must be satisfied:
 - a. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.
 - b. The unusually severe weather must actually cause a delay to the completion of the project, or portion of the project (e.g., installation of geogrid). The delay must be beyond the control and without the fault or negligence of the Contractor.
 - c. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

Monthly Anticipated Adverse Weather Delay Work Days Based on 5 Day Work Week											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
4	5	4	3	4	5	6	6	4	3	4	5

- d. Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent 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 during the 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 days shown above, MDEQ will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a Change Order for contract extension in accordance with Section 22 above.

24. Modification or Amendment.

Modification, changes or amendments to the Contract may be made upon mutual agreement of the parties hereto. However, any change, supplement, modification or amendment of any term, provision or condition of the Contract must be in writing and signed by both parties hereto.

25. Final Payment.

Upon satisfactory completion of the Work performed under the Contract, as a condition before final payment under the Contract or as a termination settlement under the Contract, Contractor shall execute and deliver to MDEQ a release of all claims against MDEQ arising under, or by virtue of, the Contract by completing the Release of Claims form provided by MDEQ. Unless otherwise provided in the Contract, by state law or otherwise expressly agreed to by the parties in the Contract, final payment under the Contract or settlement upon termination of the Contract shall not constitute waiver of MDEQ's claims against Contractor or his sureties under the Contract or applicable performance and payment bonds.

26. Conflict of Interest.

Contractor shall immediately notify MDEQ in writing of any interests (financial, contractual, organizational, or otherwise) relating to the services to be performed under this Contract that would create any actual or potential conflict of interest (or apparent conflicts of interest) (including conflicts of interest for immediate family members: spouses, parents, children) with respect to MDEQ or the Project that would impinge on Contractor's ability to render impartial, technically sound, and objective assistance or advice or result in it being given an unfair competitive advantage. In this section, the term "potential conflict" means reasonably foreseeable conflict of interest. Contractor further certifies that it has and will continue to exercise due diligence in identifying and removing or mitigating, to MDEQ's satisfaction, such conflict of interest (or apparent conflict of interest). If such conflict cannot be resolved to MDEQ's satisfaction, MDEQ reserves the right to terminate this Contract per the Termination for Convenience section of this Contract.

27. Debarment and Suspension.

Contractor certifies to the best of its knowledge and belief that it, its corporate officers, principal owners, managers, auditors and others in a position of administering governmental funds:

- A. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transaction by any federal department or agency or any political subdivision or agency of the State of Mississippi;
- B. Have not, within a three year period preceding this Contract, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense

in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or Contract under a public transaction;

- C. Have not, within a three year period preceding this Contract, been convicted of or had a civil judgment rendered against them for a violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- D. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of these offenses enumerated in subparagraphs B. and C. of this certification; and
- E. Has not, within a three year period preceding this Contract, had one or more public transactions (federal, state, or local) terminated for cause or default.

28. Representation Regarding Contingent Fees.

Contractor represents that it has not retained a person to solicit or secure a State of Mississippi contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except as disclosed in the Contractor's bid.

29. Representation Regarding Gratuities.

The bidder or Contractor represents that it has not violated, is not violating, and promises that it will not violate the prohibition against gratuities set forth in Section 9.105 (Gratuities) of the Mississippi Department of Finance and Administration's Procurement Manual (Public Procurement Review Board Regulations).

30. Tax Bonds.

A Tax Bond securing the prompt payment of taxes, licenses, assignments, contributions, damages, penalties, and interest thereon incurred in connection with the performance of the Contract shall also be provided and approved by MDEQ prior to commencing Work under the Contract.

Attorneys-in-fact who sign Payment Bonds, Performance Bonds, and Tax Bonds must file with each Bond a certified and effective dated copy of their power of attorney.

31. Insurance Requirements.

Contractor shall maintain during the period of performance of the contract the following liability insurance coverage and shall require its subcontractors to maintain said coverage, related to the work of the Contractor and in connection with the contract.

(A) Workers' Compensation and Employer's Liability Insurance. This insurance shall protect Contractor against all claims under applicable State workers' compensation laws. Contractor shall also be protected against claims for injury, disease, or death of employees, which, for any reason, may not fall within the provisions of a workers' compensation law. The liability limits shall not be less than the required statutory limits for workers' compensation and employer's liability limits in the amount of One Million and 00/100 Dollars (\$1,000,000.00). Contractor shall supply MDEQ endorsements from its carriers evidencing waiver of subrogation in favor of MDEQ.

(B) Longshore and Harbor Workers' Compensation Insurance. This insurance shall protect Contractor against all claims under the Jones Act, Death on the High Seas Act, Outer Continental Shelf Lands Act and Maritime Laws in which case minimum limits of Employers'

Liability Insurance will be at least \$1,000,000.00 per occurrence, including transportation, wages, maintenance and cure.

- (C) Comprehensive General Liability Insurance. This insurance shall include bodily injury, property damage, contractual and other standard coverage contained in comprehensive general liability insurance, in an amount of not less than One Million and 00/100 Dollars (\$1,000,000.00) per occurrence and Two Million and 00/100 Dollars (\$2,000,000.00) aggregate.
- (D) Contractors Pollution Liability Insurance. This insurance shall protect Contractor for claims for bodily injury and property damage stemming from pollution caused by the Contractor's work or equipment. This insurance shall also cover remediation costs stemming from pollution incidents resulting from the Contractor's operations and Work under this Contract. This insurance shall have minimum limits of at least \$1,000,000.00 per occurrence and \$2,000,000.00 in the aggregate.
- (E) Auto Liability Insurance. This insurance shall be in the amount of not less than One Million and 00/100 Dollars (\$1,000,000.00) Combined Single Limit to protect it from any and all claims arising from the use of the following: (1) Contractor's own automobiles and trucks; (2) hired and non-owned automobiles and trucks; and (3) automobiles and trucks owned by Contractors. The aforementioned is to cover use of automobiles and trucks on and off the site of the Project.

For all of the insurance coverage required in Paragraph 31(A)-(E), NFWF, MDEQ and MDEQ's Commissioners, officers, employees, agents, and representatives, and the State of Mississippi shall be named as additional insureds or loss payee on such policies as the circumstances may require. The Contractor shall provide that the insureds thereon waive subrogation against the State of Mississippi and the said political subdivisions thereof. The parties (and their respective insurers) agree that Contractor's respective policies shall provide primary coverage before any applicable policy otherwise covering MDEQ, and any insurance covering MDEQ shall be excess coverage over the Contractor's coverage. Endorsements so stating shall be provided to MDEQ by the Contractor. The policies shall also provide for all additional insureds to be provided with a minimum 30-day written notice prior to a cancellation or modification of each respective policy.

Upon execution of the Contract, Contractor shall promptly furnish MDEQ with endorsements showing the Contractor compliance with the insurance provisions of this paragraph. While Contractor shall provide MDEQ with endorsements as set forth in this paragraph, the failure to do so, or the failure of the endorsements or insurance provided to conform to the Agreement, does not constitute waiver or estoppels as to MDEQ of their respective legal and equitable rights, including but not limited to, the right to enforce the terms of the Contract. These contractual insurance provisions are intended to be, and shall be interpreted to be, separate and independent contractual obligations from the provisions addressing the indemnity of MDEQ by Contractor.

32. Indemnification.

To the fullest extent allowed by law, Contractor hereby agrees to defend, indemnify and hold harmless MDEQ, its Commissioners, Board Members, officers, employees, agents, and representatives, and the State of Mississippi from and/or against all claims, demands, liabilities, suits, actions, damages, losses, and costs of every kind and nature whatsoever, including, without limitation, court costs, investigative fees and expenses, and attorneys' fees, arising out of or caused by the Contractor and/or its partners, principals, agents, employees and/or Subcontractor's in the performance of or failure to perform this Agreement. In MDEQ's sole discretion, Contractor may be allowed to control the defense of any such claim, suit, etc. In the event Contractor defends said claim, suit, etc., Contractor shall use legal counsel acceptable to MDEQ; Contractor shall be solely responsible for all costs and/or expenses associated with such defense, and MDEQ shall be entitled to participate in said defense. Contractor shall not settle any claim, suit, etc., without

MDEQ's concurrence, which MDEQ shall not unreasonably withhold. This indemnity obligation is intended to be, and shall be interpreted to be, a separate and independent contractual obligation from the contractual provisions addressing the requirements and placement of insurance, including, but not limited to, insurance covering MDEQ.

33. No Limitation of Liability.

Nothing in this Contract shall be interpreted as excluding or limiting any tort liability of Contractor for harm caused by the intentional or reckless conduct of Contractor or for damages incurred through the negligent performance of duties by Contractor or the delivery of products that are defective due to negligent construction.

34. Recovery of Money.

Whenever, under the Contract, any sum of money shall be recoverable from or payable by Contractor to MDEQ, the same amount may be deducted from any sum due to Contractor under the Contract or under any other Contract between Contractor and MDEQ. The rights of MDEQ are in addition and without prejudice to any other right MDEQ may have to claim the amount of any loss or damage suffered by MDEQ on account of the acts or omissions of Contractor.

Any funds that are paid by MDEQ to the Contractor that are deemed ineligible or not necessary for the completion of the tasks in this Contract must be returned to MDEQ within 30 days from receiving MDEQ's written notification for return of funds.

35. Anti-Assignment/Subcontracting.

Contractor acknowledges that it was selected by MDEQ to perform the services required hereunder based, in part upon Contractor's special skills and expertise. Unless subcontractors are otherwise identified and approved in accordance with this Section, Contractor shall not assign, subcontract, or otherwise transfer this Contract, in whole or in part, without the prior written consent of MDEQ, which MDEQ may in its sole discretion, approve or deny without reason. Accordingly, Contractor shall abide by the following for all subcontracts:

- a. Bid Form. Contractor is required to identify on the Bid Form all subcontractors, surveyors and suppliers anticipated by Contractor to contribute over \$5,000.00 worth of services or supplies to complete the work identified on the Bid Form.
- b. Post-Award. For any subcontract anticipated by Contractor, not identified on the Bid Form, to contribute over \$5,000.00 worth of services or supplies to complete the Work, Contractor must notify MDEQ in writing and submit a Request to Subcontract in the form provided by MDEQ and obtain MDEQ's written approval of same prior to entering such contract. Prior to submitting its request to MDEQ, Contractor shall abide by the procedures set forth in Section 2.7 of the Invitation for Bids to encourage the participation of MBE/WBE for such subcontract.

The failure of Contractor to comply with this Section shall render any subcontract, assignment or transfer of Contractor's obligations null and void. MDEQ shall in no way be responsible for payment for any services or supplies provided by subcontractors not identified and/or approved in accordance with this Section. Approval by MDEQ of any subcontract shall not be deemed in any way to provide for the incurrence of any obligation of MDEQ in addition to the total fixed price agreed upon in this Contract. Subcontracts shall be subject to the terms and conditions of this Contract and to any conditions of approval that MDEQ may deem necessary. Further, MDEQ may assign its obligations under this Contract to another entity, upon such entity's agreement, in accordance with applicable state laws and regulations. Subject to the foregoing, this Contract shall be binding upon the respective successors and assigns of the parties.

36. Confidential Information.

- A. Information Designated by Contractor as Confidential. Any disclosure of those materials, documents, data and other information, which Contractor has designated in writing as proprietary and confidential shall be subject to the provisions of Miss. Code Ann. §§ 25-61-9 and 79-23-1. As provided in this Contract, the personal or professional services to be provided, the price to be paid, and the term of the Contract shall not be deemed to be a trade secret or confidential commercial or financial information. Any liability resulting from the wrongful disclosure of Confidential Information on the part of Contractor or its subcontractor shall rest with Contractor. Disclosure of any Confidential Information by Contractor or its subcontractor without the express written approval of MDEQ shall result in the immediate termination of this Contract.
- B. Public Records. Notwithstanding any provision to the contrary contained herein, all Parties recognize that MDEQ is a public agency of the State of Mississippi and is subject to the Mississippi Public Records Act. Miss. Code Ann. §§ 25-61-1 *et seq.* If a public records request is made for any information provided to MDEQ pursuant to this Contract and designated by the Contractor in writing as trade secrets or other proprietary confidential information, MDEQ shall following provisions of Miss. Code Ann. §§ 25-61-9 and 79-23-1 before disclosing such information. MDEQ shall not be liable to Contractor for disclosure of information required by court order or required by law.
- C. Disclosure of Confidential Information. In the event that either party to this Contract receives notice that a third party requests divulgence of Confidential Information or otherwise protected information and/or has served upon it a subpoena or other validly issued administrative or judicial process ordering divulgence of Confidential Information or otherwise protected information, that party shall promptly inform the other party and thereafter respond in conformity with such subpoena to the extent mandated by law. This section shall survive the termination or completion of this Contract. The parties agree that this section is subject to and superseded by Mississippi Code Annotated §§ 25-61-1 *et seq.*
- D. Exceptions to Confidential Information. Contractor and the State shall not be obligated to treat as confidential and proprietary any information disclosed by the other party ("**Disclosing Party**") which is:
 - i. Rightfully known to the recipient prior to negotiations leading to this Contract, other than information obtained in confidence under prior engagements;
 - ii. Generally known or easily ascertainable by nonparties to this Contract;
 - iii. Released by the Disclosing Party to any other person, firm, or entity (including governmental agencies or bureaus) without restriction;
 - iv. Independently developed by the recipient without any reliance on confidential information;
 - v. Part or later becomes part of the public domain or may be lawfully obtained by the State or Contractor from any nonparty; or
 - vi. Disclosed with the Disclosing Party's prior written consent; or
 - vii. otherwise required to be disclosed by law.

37. Temporary Suspension of Work.

MDEQ or the United States Coast Guard or any other governmental agency with jurisdiction shall have the authority to suspend the Work wholly or in part, for such period as it may deem necessary

due to: (1) unsuitable weather, (2) such other conditions as are considered unfavorable for the suitable prosecution of the Work (Such as additional time needed for material consolidation). For these circumstances, the Contractor may be entitled to an adjustment in Contract Times if the delay prohibits the Contractor from completing the Work within the Contract Times but no increase in Contract Price. Any such suspension ordered by MDEQ shall be within its sole discretion. MDEQ, or any other governmental agency with jurisdiction shall have the authority to cancel the temporary suspension of work prior to the temporary suspension of work period expires, as deemed necessary. This cancellation can be for all or part of the work specified in the temporary suspension of work order.

MDEQ, Engineer, Army Corps of Engineers (COE), Environmental Protection Agency, NOAA or any other governmental agency with jurisdiction may temporarily suspend work for failure on part of Contractor or any Subcontractor to carry out orders given by Engineer pursuant to the Contract or to perform any provisions of the Work in the manner prescribed by the Contract and/or permits. Any such suspension by MDEQ shall be within its sole discretion. Contractor shall immediately cease Work upon such order of MDEQ's Executive Director or representative and shall not resume the Work until ordered in writing by MDEQ. Contractor shall not be entitled to additional time or increase in the Contract Price and waives any claim for damages as a result of any such suspension of work for these reasons.

38. Termination.

The Contract may be terminated as follows:

A. Termination Upon Bankruptcy or Default:

The Contract may be terminated in whole or in part by MDEQ upon written notice to Contractor, if Contractor should become the subject of bankruptcy or receivership proceedings, whether voluntary or involuntary, or upon the execution by Contractor of an assignment for the benefit of its creditors. In the event of such termination, Contractor (or Bonding Company) shall be paid an amount for satisfactory work actually performed pursuant to the Contract, but in no case shall said compensation exceed the total Contract price.

B. Termination Due to Non-Performance By Third Party:

The Contract may be terminated in whole or in part by MDEQ upon written notice to Contractor if the purpose, performance or completion of the Work becomes materially altered, frustrated or impossible due to a third party, (public or private entity) outside of the control of MDEQ, not performing or satisfying an activity or operation necessary for the Work to be accomplished. This provision shall not apply to the subcontractors or suppliers of Contractor, which are addressed separately. MDEQ shall specify the effective date of such termination. In the event of a termination under this provision, the Contractor shall be paid an amount for satisfactory work actually performed in connection with the Contract if a Notice to Proceed has been issued. If a Notice to Proceed has not been issued prior to such termination, the termination will be without damage, penalty, costs or expenses to MDEQ of any kind whatsoever and the Contractor waives any claim for payment or damages as a result.

C. Termination for Convenience:

MDEQ may terminate the Contract, in whole or in part, for any reason after giving written notice to Contractor of such termination and specifying the effective date thereof, at least ten (10) days before the effective date of such termination. Contractor shall be paid an amount for satisfactory work actually performed in connection with the Contract, but in no case shall said compensation exceed the total Contract price.

Upon receiving notice of termination, Contractor shall incur no further obligations in connection with the terminated work, and on the date set in the notice of termination Contractor will stop work to the extent specified. Contractor shall also terminate

outstanding orders and subcontracts as they relate to the terminated work. Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work. MDEQ may direct Contractor to assign Contractor's right, title, and interest under terminated orders or subcontracts to MDEQ. Contractor must still complete the work not terminated by the notice of termination and may incur obligations as are necessary to do so.

D. Termination for Default:

(i) Default. If Contractor refuses or fails to perform any of the provisions of this Contract with such diligence as will ensure its completion within the time specified in this Contract or any extension thereof or otherwise fails to timely satisfy the Contract provisions or commits any other substantial breach of this Contract, MDEQ may notify Contractor in writing of the delay or nonperformance. If delay or nonperformance is not cured in ten (10) days or any longer time specified in writing by the MDEQ officer or representative, MDEQ may terminate Contractor's right to proceed with the Contract or such part of the Contract as to which there has been delay or a failure to properly perform. In the event of termination in whole or in part, the procurement officer may procure similar supplies or services in a manner and upon terms deemed appropriate by MDEQ. Contractor shall continue performance of the Contract to the extent it is not terminated and shall be liable to MDEQ for excess costs incurred in procuring similar goods or services.

(ii) Contractor's Duties. Notwithstanding termination of the Contract and subject to any directions from MDEQ, Contractor shall take timely, reasonable, and necessary action to protect and preserve property in the possession of Contractor in which the State has an interest.

(iii) Compensation. Payment for completed services delivered and accepted by the State shall be at the Contract Price. The State may withhold from amounts due Contractor such sums as MDEQ deems to be necessary to protect the State against loss because of outstanding liens or claims of former lien holders and to reimburse the State for the excess costs incurred in procuring similar goods and services.

(iv) Excuse for Nonperformance or Delayed Performance. Except with respect to defaults of subcontractors, Contractor shall not be in default by reason of any failure in performance of this Contract in accordance with its terms (including any failure by Contractor to make progress in the prosecution of the work hereunder which endangers such performance) if Contractor has notified MDEQ within 10 days after the cause of the delay and the failure arises out of causes such as: acts of God; acts of the public enemy; acts of the State and any other governmental entity in its sovereign or contractual capacity; fires; floods; epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather. If the failure to perform is caused by the failure of a subcontractor to perform or to make progress and if such failure arises out of causes similar to those set forth above, Contractor shall not be deemed to be in default, unless the services to be furnished by the subcontractor were reasonably obtainable from other sources in sufficient time to permit Contractor to meet the Contract requirements. Upon request of Contractor, MDEQ shall ascertain the facts and extent of such failure. If MDEQ determines that any failure to perform was occasioned by any one or more of the excusable causes and that, but for the excusable cause, Contractor's progress and performance would have met the terms of the Contract, the delivery schedule be revised accordingly, subject to the rights of MDEQ under the section entitled "Termination for Convenience." (As used in this paragraph of this section, the term "subcontractor" means subcontractor at any tier.)

(v) Erroneous Termination for Default. If, after notice of termination of Contractor's right to proceed under the provisions of this section, MDEQ determines for any reason that the Contract was not in default under the provisions of this section or that the delay was

excusable under the provisions of subparagraph (iv) (Excuse for Nonperformance or Delayed Performance) of this section, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to such section.

Notwithstanding any of the foregoing provisions, Contractor shall not be relieved of liability to MDEQ for damages sustained by MDEQ by virtue of any breach of the Contract by Contractor, and MDEQ may withhold any payments to Contractor for the purpose of set off until such time as the exact amount of damages due MDEQ from Contractor are determined. MDEQ may also pursue any remedy available to it in law or in equity.

39. Use and Possession Prior to Completion.

- A. MDEQ shall have the right to take possession of or use any completed or partially completed part of the Work. Before taking possession of or using any Work, the MDEQ or its designated Engineer shall furnish the Contractor a list of items of Work remaining to be performed or corrected on those portions of the Work that the MDEQ intends to take possession of or use. However, failure of the MDEQ or its Engineer to list any item of Work shall not relieve the Contractor of responsibility for complying with the terms of the Contract Documents. MDEQ's possession or use shall not be deemed an acceptance of any Work under the Contract Documents.
- B. While MDEQ has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the Work resulting from MDEQ's possession or use. If prior possession or use by MDEQ delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment shall be made in the Contract Price or the Contract Time pursuant to the Change Order provisions above.

40. Antitrust.

By entering into this Contract, Contractor conveys, sells, assigns, and transfers to MDEQ all rights, titles, and interest it may now have, or hereafter acquire, under the antitrust laws of the United States and the State that relate to the services purchased or acquired by MDEQ under this Contract.

41. Procurement Regulations.

The Contract shall be governed by the applicable provisions of the Public Procurement Review Board Regulations.

42. Small, Minority and Women Businesses.

It is MDEQ's policy to solicit participation from small, minority and women businesses. Contractor shall ensure that reasonable efforts are made to utilize Minority Business Enterprises (MBE)/Women Business Enterprises (WBE). For any subcontracting not included in the original bid, the Contractor must follow the conditions listed in the section entitled "Minority and Women Businesses" of the Invitation for Bids, and then submit a Request to Subcontract in the form provided by MDEQ prior to assigning or subcontracting any portion of this Contract.

43. Compliance with Miss. Code. Ann. § 31-5-37.

Pursuant to Miss. Code. Ann. § 31-5-37, from the date written notice of the contract award is received and until ten (10) business days after the receipt of the employment plan by the Mississippi Department of Employment Security ("MDES"), the Contractor and any subcontractor shall not hire any personnel to fill vacant positions for this project except residents of the State of Mississippi who are to be verified by MDES and/or those qualified individuals who are submitted by MDES. However, the Contractor or subcontractor is authorized to employ Mississippi residents to begin work immediately if such persons are verified by MDES after employment by the Contractor or subcontractor. During the ten (10) day period, the MDES shall submit qualified individuals to the

Contractor to consider for the vacant positions. The Contractor shall review the individuals submitted by MDES before hiring individuals who are not submitted by MDES. The contract award shall be vacated if the Contractor fails to comply with the provisions of Miss. Code Ann. § 31-5-37.

44. E-Verification.

If applicable, Contractor represents and warrants that it will ensure its compliance with the Mississippi Employment Protection Act of 2008 and will register and participate in the status verification system for all newly hired employees. Miss. Code Ann. §§ 71-11-1, *et seq.* The term “employee” as used herein means any person that is hired to perform work within the State. As used herein, “status verification system” means the Illegal Immigration Reform and Immigration Responsibility Act of 1996 that is operated by the United States Department of Homeland Security, also known as the E-Verify Program, or any other successor electronic verification system replacing the E-Verify Program. Contractor agrees to maintain records of such compliance. Upon request of the State of Mississippi and after approval of the Social Security Administration or Department of Homeland Security, when required, Contractor agrees to provide a copy of each such verification. Contractor further represents and warrants that any person assigned to perform services hereafter meets the employment eligibility requirements of all immigration laws. The breach of this Contract may subject Contractor to the following:

- A. Termination of this Contract for services and ineligibility for any state or public Contract in Mississippi for up to three (3) years with notice of such cancellation/termination being made public;
- B. The loss of any license, permit, certification or other document granted to Contractor by an agency, department or governmental entity for the right to do business in Mississippi for up to one (1) year; or
- C. Both. In the event of such termination/cancellation, Contractor would also be liable for any additional costs incurred by the State due to Contract cancellation or loss of license or permit to do business in the State.

45. E-Payment.

Contractor agrees to accept all payments in United States currency via the State of Mississippi’s electronic payment and remittance vehicle. MDEQ agrees to make payment in accordance with Mississippi law on “Timely Payments for Purchases by Public Bodies,” which generally provides for payment of undisputed amounts by the Agency within forty-five (45) days of receipt of invoice. Mississippi Code Annotated 31-7-301, *et seq.*

46. Pay Mode.

Payments by state agencies using the State’s accounting system shall be made and remittance information provided electronically as directed by the State. These payments shall be deposited into the bank account of Contractor’s choice. The State, may at its sole discretion, require Contractor to electronically submit invoices and supporting documentation at any time during the term of this Agreement. Contractor understands and agrees that the State is exempt from the payment of taxes. All payments shall be in United States currency.

47. Transparency.

This Contract, including any accompanying exhibits, attachments, and appendices, is subject to the “Mississippi Public Records Act of 1983” and its exceptions. See Miss. Code Ann. §§ 25-61-1 *et seq.* and Miss. Code Ann. § 79-23-1. In addition, this Contract is subject to the provisions of the Mississippi Accountability and Transparency Act of 2008. Miss. Code Ann. §§ 27-104-151, *et*

seq. Unless exempted from disclosure due to a court-issued protective order, a copy of this executed Contract is required to be posted to the Department of Finance and Administration's independent agency Contract website for public access at <http://www.transparency.mississippi>. Information identified by Contractor as trade secrets or other proprietary information, including confidential vendor information, or any other information which is required confidential by state or federal law or outside the applicable freedom of information statutes will be redacted. The personal or professional services to be provided, the price to be paid, and the terms of this Contract shall not be deemed to be a trade secret or confidential commercial or financial information.

48. Waiver.

Failure by MDEQ, at any time, to enforce the provisions of the Contract shall not be construed as a waiver of any such provisions. Such failure to enforce shall not affect the validity of the Contract or any part thereof or the right of MDEQ to enforce any provision at any time in accordance with its terms.

49. Governing Law.

The Contract shall be construed and governed in accordance with the laws of the State of Mississippi, without regard to its conflicts of laws, and the laws of the United States of America, and venue for the resolution of any dispute shall be brought in the appropriate state or federal court located in Jackson, Hinds County, Mississippi.

50. Compliance with Laws.

Contractor understands that MDEQ is an equal opportunity employer and therefore maintains a policy which prohibits unlawful discrimination based on race, color, creed, sex, age, national origin, physical handicap, disability, or any other consideration made unlawful by federal, state, or local laws. All such discrimination is unlawful and Contractor agrees during the term of the Contract that Contractor will strictly adhere to this policy in its employment practices and provision of work performed pursuant to the Contract. Contractor shall comply with, and all activities under this Agreement shall be subject to, all applicable federal, state, and local laws and regulations, as now existing and as may be amended or modified. Contractor shall immediately report in writing to MDEQ any discrepancy or inconsistency in the Contract Documents that appear to violate or be contrary to the then existing applicable federal, state and local laws. Contractor shall ensure that any person assigned to perform services hereunder meets the employment eligibility requirements of the immigration and naturalization laws including but not limited to the Immigration Reform and Control Act of 1986.

51. Reference to Statutes.

Whenever reference is made to the provision of any statute or law in the Contract Documents, such reference applies to any amendment or change in such statute or law now existing, but to become operative sometime after the signing of the Contract.

52. Headings.

The captions or headings in the Contract are for convenience only, and in no way define, limit or describe the scope or intent of any provision or section of the Contract.

53. Severability.

If any part of this Contract is declared to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision of the Agreement that can be given effect without the invalid or unenforceable provision, and to this end the provisions hereof are severable. In such event, the parties shall amend the Agreement as necessary to reflect the original intent of the parties and to bring any invalid or unenforceable provisions in compliance with applicable law.

54. Disputes.

Before pleading to any judicial system at any level, Contractor must exhaust all administrative remedies. A written complaint of any claim or dispute not otherwise resolved by the procedures outlined in the Contract Documents must first be sent to the Executive Director of MDEQ within thirty (30) days of the Contractor being aggrieved by the decision of MDEQ or its representative(s). The decision of the Executive Director shall be reduced to writing and a copy thereof mailed or furnished to Contractor. Pending non-resolution of the complaint at this point, successive administrative remedies will include bringing the complaint before the Mississippi Commission on Environmental Quality pursuant to Mississippi Code Annotated Section 49-17-35, with appeals from the Commission's decision following procedures as outlined in Miss. Code Ann. Section 49-17-41.

For any disputed claim over \$100,000, and as a prerequisite to the claim proceeding through MDEQ's administrative remedies and in court, a registered officer of the Contractor shall provide the following certification to MDEQ upon filing the initial written complaint with the Executive Director:

"I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes MDEQ is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."

55. Professional Fees and Expenses.

If MDEQ incurs attorneys' fees, costs or expenses (including, without limitation, court costs, investigative fees, engineering fees, accounting fees, and other professional service fees) in order to enforce any of the terms or conditions of this Contract or because of the breach of this Contract by the Contractor, MDEQ shall be entitled to recover its reasonable attorneys' fees, costs and such expenses from Contractor if MDEQ is the prevailing party (whether by suit, negotiation or settlement).

56. Oral Statements.

No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in this Contract.

57. Delivery of Contract and Notices.

A signed copy of this Contract delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Contract.

All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by facsimile or e-mail of document (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next business day if sent after normal business hours of the recipient; or (d) on the third day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective Parties at the following addresses (or at such other address for a Party as shall be specified in a notice given in accordance with this subsection):

If to MDEQ:

Attention: Melanie Green
Mississippi Department of Environmental Quality
Address: P.O. Box 2261 Jackson, MS 39226
Phone: 601-961-5270
Email: mgreen@mdeq.ms.gov

Engineer:

Attention: John C. Bourgeois, P.E.
Allen Engineering and Science
Address: 6360 I-55 N., Suite 330, Jackson, MS 39211
Phone: 601-291-5566
Email: JBourgeois@AllenES.com

Contractor:

Attention:
Entity Name:
Address:
Phone:
E-mail:

Attachment G

Miss. Code Ann. § 31-5-37

§ 31-5-37. Contractors submitting bids for public works projects utilizing specified funding required to submit employment plan with bid; contents of plan; review of individuals for vacant positions

(1) All public works projects utilizing funds received by state or local governmental entities resulting from a federally declared disaster or a spill of national significance, including damages, penalties, fines or supplemental projects paid or financed by responsible parties pursuant to a court order, negotiated settlement, or other instrument, including under any law distributing such fines and penalties including the federal Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economy of the Gulf Coast Act of 2011 (R.E.S.T.O.R.E.), the Oil Pollution Act of 1990 or the Federal Water Pollution Control Act or similar legislation, shall be subject to the hiring policies established by this section.

(2) Contractors submitting bids for public works projects that involve an expenditure of Five Thousand Dollars (\$ 5,000.00) or more and that are financed, in whole or in part, through the use of funds described in subsection (1) of this section shall submit with their bid a certification that they will comply with the provisions of this section if they are awarded a contract. The contractor shall submit to the agency or governing authority that solicited the bid and the Mississippi Department of Employment Security an employment plan within seven (7) days after the award of the contract which shall include the following:

- (a) The types of jobs involved in the public works project;
- (b) The skill level of the jobs involved in the project;
- (c) Wage information on the jobs involved in the project;
- (d) The number of vacant positions that the contractor and any subcontractor needs to fill;
- (e) How the contractor and any subcontractor will recruit, low-wage and unemployed individuals for job vacancies;
- (f) Such other information as may be required by the Mississippi Department of Employment Security; and
- (g) Proof of registration with the Mississippi Department of Employment Security for taxation in accordance with the provisions of Title 71.

(3) From the date written notice of the contract award is received and until ten (10) business days after the receipt of the employment plan by the Mississippi Department of Employment Security, the contractor and any subcontractor shall not hire any personnel to fill vacant positions necessary for the public works project except residents of the State of Mississippi who are to be verified by the Mississippi Department of Employment Security and/or those qualified individuals who are submitted by the Mississippi Department of Employment Security. For purposes of this subsection, the contractor or subcontractor is authorized to employ Mississippi residents to begin work immediately, and such persons are to be verified by the Mississippi Department of Employment Security after employment by the contractor or subcontractor. During the ten-day period the Mississippi Department of Employment Security shall submit qualified individuals to the contractor to consider for the vacant positions. The contractor shall review the individuals submitted by the department before hiring individuals who are not submitted by the department. The contract award shall be vacated if the contractor fails to comply with the provisions of this subsection.

HISTORY: SOURCES: Laws, 2012, ch. 505, § 1; Laws, 2013, ch. 479, § 1, eff from and after passage (approved April 1, 2013.)

Miss. Code Ann. § 31-5-33

§ 31-5-33. Amount of retainage which may be withheld; exemptions

(1) In any contract for the construction, repair, alteration or demolition of any building, structure or facility awarded by the State of Mississippi, or any agency, unit or department of the State of Mississippi, or by any political subdivision thereof, which contract provides for progress payments in installments based upon an estimated percentage of completion with a percentage of the contract proceeds to be retained by the state agency, unit or department, or by the political subdivision or contractor pending completion of the contract, such retainage shall be five percent (5%), and the amount retained by the prime contractor from each payment due the subcontractor shall not exceed the percentage withheld by the state, or any agency, unit or department of the state, or by any political subdivision thereof, from the prime contractor.

On any contract as described herein, of which the total amount is Two Hundred Fifty Thousand Dollars (\$ 250,000.00) or greater, or on any contract with a subcontractor, regardless of amount, five percent (5%) shall be retained until the work is at least fifty percent (50%) complete, on schedule and satisfactory in the architect's and/or engineer's opinion, at which time fifty percent (50%) of the retainage held to date shall be returned to the prime contractor for distribution to the appropriate subcontractors and suppliers. Provided, however, that future retainage shall be withheld at the rate of two and one-half percent (2 1/2%).

(2) The provisions of this section shall not apply to contracts let by the Mississippi Transportation Commission for the construction, improvement or maintenance of roads and bridges.

HISTORY: SOURCES: Laws, 1979, ch. 454, § 1; Laws, 1984, ch. 406, § 1; Laws, 2002, ch. 519, § 2, eff from and after July 1, 2002.

Miss. Code Ann. § 31-7-305

§ 31-7-305. Recordkeeping and notice requirements; time for mailing check in payment of invoice; time for payment in event of dispute; interest penalties.

(1) All public bodies of the state, including those which issue checks and those which file requisitions for payment with the State Fiscal Management Board, shall keep a record of the date of receipt of the invoice, dates of receipt, inspection and approval of the goods or services, date of issuing the check or date of filing the requisition for payment, as the case may be, and date of mailing or otherwise delivering the warrant or check in payment thereof. In the event that the State Fiscal Management Board mails or otherwise delivers the warrant directly to the claimant, pursuant to Section 7-7-35, Mississippi Code of 1972, the State Fiscal Management Board shall notify the public body of the date thereof. The provisions of this section are supplemental to the requirements of Sections 19-13-29, 21-39-7, 21-39-13 and 37-5-93, Mississippi Code of 1972.

(2) All public bodies that are authorized to issue checks in payment of goods and services and are not required to issue requisitions for payment to the State Fiscal Management Board shall mail or otherwise deliver such checks no later than forty-five (45) days after receipt of the invoice and receipt, inspection and approval of the goods or services; however, in the event of a bona fide dispute, the public body shall pay only the amount not disputed.

(3) If a warrant or check, as the case may be, in payment of an invoice is not mailed or otherwise delivered within forty-five (45) days after receipt of the invoice and receipt, inspection and approval of the goods and services, the public body shall be liable to the vendor, in addition to the amount of the invoice, for interest at a rate of one and one-half percent (1-1/2 %) per month or portion thereof on the unpaid balance from the expiration of such forty-five-day period until such time as the warrant or check is mailed or otherwise delivered to the vendor. The provisions of this paragraph shall apply only to undisputed amounts for which payment has been authorized. In the case of an error on the part of the vendor, the forty-five-day period shall begin to run upon receipt of a corrected invoice by the public body and upon compliance with the other provisions of this section. The various public bodies shall be responsible for initiating the penalty payments required by this subsection and shall use this subsection as authority to make such payments. Also, at the time of initiating such penalty payment, the public body shall specify in writing an explanation of the delay and shall attach such explanation to the requisition for payment of the penalty or to the file copy of the check issued by the public body, as the case may be.

(4) (a) In the event of a bona fide dispute as to an invoice, or any portion thereof, the dispute shall be settled within thirty (30) days after interest penalties could begin to be assessed, if it were not for the dispute.

(b) If a warrant or check, as the case may be, in payment of an invoice, subject to a prior dispute, is not mailed or otherwise delivered within thirty (30) days after settlement of the dispute, the public body shall be liable to the vendor, in addition to the amount of the invoice, for interest at a rate of one and one-half percent (1-1/2 %) per month or portion thereof on the unpaid balance from the expiration of said thirty-day period until such time as the warrant or check is mailed or otherwise delivered to the vendor. At the time of initiating such penalty payment, the public body shall specify in writing an explanation of the delay and shall attach such explanation to the requisition for payment of the penalty or to the file copy of the check issued by the public body, as the case may be. The interest penalty prescribed in this paragraph shall be in lieu of the penalty provided in subsection (3).

END

ATTACHMENT H

Mississippi First Act – Employment Plan Form for Public Works Projects

This form may be digitally downloaded from

<http://www.mdes.ms.gov/employers/mississippi-first-act-and-public-works-contracts-employment-plans/>

Mississippi First Act
Employment Plan Form for Public Works Projects*

Project Number:

Bid Date:

Project Title:

Institution / Agency:

Please provide the information requested below regarding the contractor and its subcontractors.

1. List the types of jobs that will be involved in the project:

2. List the skill level of the jobs involved in the project:

3. List the wages for each job involved in the project:

4. List the number of vacant positions that will need to be filled for each job involved in the project:

5. Explain how low wage and unemployed individuals will be recruited for job vacancies:

6. Attach proof of registration with the Mississippi Department of Employment Security (MDES) for taxation purposes.

I certify that the information provided above is true and accurate to the best of my knowledge.

Contractor Name and
Authorized Representative:

Title:

Date:

**Note: This form must be submitted if Miss. Code Ann 31-5-37 (Mississippi First Act) applies to the project.*

This law requires a contractor awarded a contract for a public works project utilizing specified funding to submit an employment plan to the public agency or authority that awarded the contract and to MDES.

Please submit a copy of your employment plan to MDES via fax at 601-321-6080
or via email at recoveryjobs@mdes.ms.gov.

Signature:

To sign digitally, click and add your digital signature above. You may also print and sign this by hand to fax.

This form may be digitally downloaded from

<http://www.mdes.ms.gov/employers/mississippi-first-act-and-public-works-contracts-employment-plans/>

Attachment I

Bidder Certificate of Commitment to Comply with Miss. Code Ann. § 31-5-37

State of _____

County of _____

I, _____, individually, and in my capacity as _____ of _____ (Bidder), being first duly sworn, on oath depose and state the following on behalf of the company:

Bidder represents as a part of such Bidder's bid that it will fully comply with the requirements of Miss. Code Ann. § 31-5-37 by submitting to the Mississippi Department of Environmental Quality and the Mississippi Department of Employment Security an employment plan within seven (7) days after the award of the Contract which shall include all of the information required in Miss. Code Ann. § 31-5-37(2)(a)-(g).

All of the foregoing is true and correct:

Bidder: _____

Date: _____

Authorized Signature: _____

Name: _____

Typed/Printed

Title: _____

SWORN TO AND SUBSCRIBED before me, this the ____ day of _____, 20____.

NOTARY PUBLIC

My Commission Expires:

[SEAL]

2. Select one the following:

- The offeror is a MBE/WBE firm and at least one or more MBE/WBE firms were solicited and selected for the proposed contract, as indicated above. Prior to contract award, the offeror shall supply MDEQ with proof of offeror's and offeror's subcontractor's MBE/WBE status by providing the documentation required in 2.7 of the IFB.
- The offeror is a MBE/WBE firm and no other MBE/WBE firms were solicited for the proposed contract. Prior to contract award, the offeror shall supply MDEQ with proof of offeror's MBE/WBE status by providing the documentation required in 2.7 of the IFB.
- The offeror is not a MBE/WBE firm. However, at least one or more MBE/WBE firms were solicited and selected, as indicated above, for the proposed contract. Prior to contract award, the offeror shall supply MDEQ with proof of offeror's subcontractor's MBE/WBE status by providing the documentation required in 2.7 of the IFB.
- The offeror is not a MBE/WBE firm. However, at least one or more MBE/WBE firms were solicited (but not selected), as indicated above, for the proposed contract.
- The prime firm submitting for the proposed contract is not a MBE/WBE firm and no MBE/WBE firms were solicited for the proposed contract. If so, please explain.

ATTACHMENT K

BID BOND

KNOWN ALL MEN BY THESE PRESENTS:

That _____

(Name of Contractor)

(Address of Contractor)

A _____ hereinafter called "Principal", and
(Corporation, Partnership, Limited Liability Company or Individual)

_____ hereinafter called "Surety",
(Name of Surety)

are held and firmly bound unto the **MDEQ**, hereinafter called "**OWNER**" in the penal sum of 5% of Total Bid, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

Signed, this the _____ day of _____, 20____. The Condition of the above obligation is such that whereas the Principal has submitted to the **MDEQ** a certain BID, attached hereto and hereby made a part thereof to enter into a Contract in writing, for the performance of:

"NORTH BEARDSLEE LAKE MARSH RESTORATION"

NOW, THEREFORE,

- (a) If said BID shall be rejected, or,
- (b) If said BID shall be accepted and the Principal shall execute and delivery a Contract on the Contract form as attached hereto (properly completed in accordance with said BID) and shall furnish a Payment Bond, a Performance Bond and a Tax Bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection herewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impacted or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these present to be signed by their officers, the day and year first set forth above.

Principal

(L.S.)

Surety

By:

By:

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department’s most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located. This Bid Bond shall be accompanied by a certified and currently dated copy of the Attorney-in-Fact’s Power of Attorney.

END OF DOCUMENT

PERFORMANCE BOND

KNOWN ALL MEN BY THESE PRESENTS:

That _____
(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called "Principal", and
(Corporation, Partnership, Limited Liability Company or Individual)

_____ hereinafter called "Surety",
(Name of Surety)

are held and firmly bound unto the **MDEQ**, hereinafter called "**OWNER**" in the penal sum of _____

_____ Dollars (\$ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain Contract with the OWNER, dated the _____ day of _____, 20_____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, the Contractor and the Surety, jointly and severally, bond themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference. If the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the Original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all of outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect. PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the WORK to be performed hereunder or the CONTRACT DOCUMENTS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the loans of this Contract or to the WORK or to the CONTRACT DOCUMENTS. PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may not yet be satisfied.

The following conditions apply to this Bond:

1. The Performance Bond is for an amount equal to the full amount of said Contract.

2. If any changes are made in the work, or any extensions of time are granted, or any increases in the total dollar amount of the Contract are made, such changes, extensions, increases, or other forbearance on the part of either the Owner or the Principal will not, in any way, release the Principal and Surety, or either of them, from their liability hereunder, or any portion thereof, notice to the Surety of any such change, extension, increase, or forbearance being expressly waived.

3. This Bond is governed by and shall be construed in accordance with Mississippi law. Any inconsistency with this Bond and any provision of Mississippi law shall be remedied by deleting the inconsistent portion of this Bond and leaving the remaining consistent portions in full force and effect.

WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20____.

ATTEST:

(Principal) Secretary

(Principal)

By: _____

(SEAL)

(Address)

Witness as to Principal

(Address)

ATTEST:
(SEAL)

(Surety)

By

Attorney-in-Fact, MS Resident Agent

Witness as to Surety

(Address)

(Address)

Phone Number (include Area Code)

NOTE: Date of BOND **must not be prior** to date of CONTRACT. If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located. This Performance Bond shall be accompanied by a certified and currently dated copy of the Attorney-in-Fact's Power of Attorney

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PAYMENT BOND

KNOWN ALL MEN BY THESE PRESENTS:

That _____
(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called "Principal", and
(Corporation, Partnership, Limited Liability Company or Individual)

_____ hereinafter called "Surety",
(Name of Surety)

are held and firmly bound unto the **MDEQ**, hereinafter called "**OWNER**" in the penal sum of

_____ Dollars (\$_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain Contract with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, the Contractor and the Surety, jointly and severally, bond themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference. If the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, SUB-SUBCONTRACTORS, SUPPLIERS and corporations furnishing materials for or performing labor or equipment in the prosecution of the WORK provided for in such Contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR, SUB-SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect. PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the WORK to be performed hereunder or the CONTRACT DOCUMENTS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this Contract or to the WORK or to the CONTRACT DOCUMENTS. PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may not yet be satisfied. Furthermore, the Owner shall not be liable for the payment of any costs or expenses of any suit described in Subsections (2) or (3) of Mississippi Code Annotated Section 31-5-51.

The following conditions apply to this Bond:

1. This Payment Bond is for an amount equal to the full amount of said Contract.

2. If any changes are made in the work, or any extensions of time are granted, or any increases in the total dollar amount of the Contract are made, such changes, extensions, increases, or other forbearance on the part of either the Owner or the Principal will not, in any way, release the Principal and Surety, or either of them, from their liability hereunder, or any portion thereof, notice to the Surety of any such change, extension, increase, or forbearance being expressly waived.

3. This Bond is governed by and shall be construed in accordance with Mississippi law. Any inconsistency with this Bond and any provision of Mississippi law shall be remedied by deleting the inconsistent portion of this Bond and leaving the remaining consistent portions in full force and effect.

WITNESS WHEREOF, this instrument is executed in (3) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20_____.

ATTEST:

(Principal) Secretary

(Principal)

By: _____

(SEAL)

(Address)

Witness as to Principal

(Address)

ATTEST:
(SEAL)

(Surety)

By

Attorney-in-Fact, MS Resident Agent

Witness as to Surety

(Address)

(Address)

Phone Number (include Area Code)

NOTE: Date of BOND **must not be prior** to date of CONTRACT. If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located. This Performance Bond shall be accompanied by a certified and currently dated copy of the Attorney-in-Fact's Power of Attorney

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**DEPARTMENT OF REVENUE
JACKSON, MISSISSIPPI**

Bond Number _____

**RIDER
(SALES, USE, INCOME, FRANCHISE, WITHHOLDING, AND
SPECIAL FUEL [DIESEL FUEL] TAX BOND)**

This Rider is attached to and becomes a part of a certain performance and/or payment bond executed by _____ as Principal,

(Name and Address)

in favor of _____ as Obligee, (Name

and Address)

and covering a contract dated _____, 20_____, for the construction of

(Name Project and Describe)

WHEREAS, under the provisions of Miss Code Ann. § 27-65-21, the said Principal is required to and has furnished the attached bond guaranteeing payment of all taxes, damages, interest and penalties which may accrue to the State of Mississippi under Miss Code Ann. § 27-65-1 et seq. and § 27-67-1 et seq., and § 27-7-1 et seq., and § 27-13-1 et seq., and § 27-7-301 et seq., and § 27-55-313 et seq. and amendments thereto, on account of entering into said contract.

NOW, THEREFORE, in addition to the obligations set forth in the attached bond, there is hereby imposed the additional obligation by this Rider that the Contractor shall promptly make payment when due of all taxes, damages, interest and penalties which may accrue to the State of Mississippi under Miss Code Ann. § 27-65-1 et seq., and § 27-67-1 et seq., and § 27-7-1 et seq., and § 27-13-1 et seq., and § 27-7-301 et seq., and § 27-55-313, and amendments thereto, on account of the execution of the aforesaid contract.

NOTWITHSTANDING any provision in the performance and/or payment bond, the expiration date for the sureties' responsibilities and/or liabilities under this Rider shall be sixty (60) months from the date the final payment for the project described herein is made, except in the existence of fraud there shall be no expiration date for this Rider.

NOTWITHSTANDING the tax information and return confidentiality provisions contained within Miss Code Ann. § 27-65-1 et seq., § 27-67-1 et seq., § 27-7-1 et seq., § 27-13-1 et seq., § 27-7-301 et seq., and § 27-55-301 et seq., and amendments thereto, principal hereby authorizes the Department of Revenue to release to surety any information relating to any claim against said surety made by the Department of Revenue which is covered by this bond.

SIGNED, SEALED AND DELIVERED, This the _____ day of _____,
20_____

Filed and Approved this the _____ day

of _____, 20_____.

Commissioner and Chairman of the DEPARTMENT OF REVENUE

Principal

Surety

By _____
Attorney in Fact

COUNTERSIGNATURE:

By _____
Licensed Mississippi Agent

(Type or Print Name of Agent)

(Telephone Number)

(SEAL)

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SECTION 00 52 15

AGREEMENT

This Agreement (hereinafter “Agreement” or “Contract”) is entered by and between the Mississippi Department of Environmental Quality (hereinafter called “MDEQ” or “Agency”) and _____ (hereinafter called “Contractor”).

MDEQ and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

Contractor shall complete all work as specified or indicated in the Contract Documents as defined in ARTICLE 7 below (“Work”). Contractor shall furnish all labor, materials, equipment, appliances, services, tools, bonds, insurance, taxes and other things necessary for the complete and timely performance of the Work. The Work is generally described as follows:

The purpose of this Project is to construct a containment system from dredge sediments obtained from dredge disposal sites in and along the Pascagoula River and other areas, ultimately creating new marsh habitat at the site. The work consists of providing all necessary labor, equipment, and materials to construct approximately 1,200’ of earthen berm containment and approximately 280’ of rock riprap containment dike (and other related appurtenances) located on the western portion of North Beardslee Lake in Jackson County, Mississippi.

ARTICLE 2 - MDEQ AND ENGINEER

This is an MDEQ Project. Allen Engineering and Science, Inc. (AllenES) (hereinafter called “Engineer”) is to act as MDEQ’s representative, assumes all duties and responsibilities, and has the rights and authority assigned to Engineer in accordance with Attachment F (Standard Contract Terms and Conditions), including Section 3 of same, in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 3 - CONTRACT TIME AND LIQUIDATED DAMAGES

3.01 The Contractor will commence and complete the construction of the Project within the period of performance defined in Section 3.02.

3.02 The performance period for this Contract has been established at 360 calendar days (“Contract Time”) from the effective date in the Notice to Proceed. The Contract Time is inclusive of anticipated adverse weather days as described in Paragraph 23 of the Standard Contract Terms and Conditions.

The Project is to be constructed in two Phases (Phase 1 & Phase 2). The Contract Time for completion of all Work for the Project is 360 calendar days. This Contract Time includes up to 180 days to allow for consolidation of material from the Phase 1, and 180 days for the Contractor to complete all of the Work for the Project. Contractor will not begin performing any of the Work related to Phase 2 of the Project until directed by MDEQ's Engineer of Record. If additional time is needed beyond the 180 days for material consolidation, any extension of Contract Time will be made in accordance with the Contract.

The Contractor shall procure, install and construct all items required to complete the Work shown in the Contract Documents.

3.03 Liquidated Damages. MDEQ and Contractor recognize that time is of the essence for this Agreement and that MDEQ may suffer financial loss if the Work is not completed within the Contract Time specified in Section 3.02 above, plus any extensions thereof allowed in accordance with the Standard Contract Terms and Conditions. The parties also recognize the delays, expense, and difficulties involved in proving the actual loss suffered by MDEQ if the Work is not completed on time. Accordingly, instead of requiring any

such proof, MDEQ and Contractor agree that as liquidated damages for delay, Contractor shall pay MDEQ \$500 for each day that expires after the time specified in Section 3.02 to complete all construction, subject to any extensions granted.

ARTICLE 4 - COMPENSATION

The Contractor agrees to furnish all materials in place and to faithfully complete all said Work described by this Contract in good and workmanlike manner, strictly in accordance with said Contract Documents, Contract Drawings, and other requirements of MDEQ, under the direct observation of and to the complete satisfaction of MDEQ or its authorized representatives, and in accordance with the laws of the State of Mississippi, for which MDEQ hereby agrees to pay, and the Contractor agrees to accept, a sum of money in current funds equal to the total value of the Work complete in place, computed by multiplying the final quantities of each item of Work by the Contract unit prices and the amounts established by the approved Schedule of Values for Lump Sum prices as stated in the Bid Form, attached hereto and made a part hereof which is estimated as being the sum of

(\$ _____) (“Contract Sum” or “Contract Price”), in full compensation for furnishing all materials, doing of all the Work described under the Contract, as well as all loss or damage, if any, arising out of the nature of the Work.

ARTICLE 5 - PAYMENTS

- 5.01 Contractor shall submit Applications for Payment to Engineer in accordance with the Standard Contract Terms and Conditions, Section 01 20 00 – Measurement and Payment Procedures of the Contract Documents, and Section 01 29 00 – Payment Procedures. Contractor will be paid for all Work satisfactorily completed on the basis of the number of units completed for Unit Price Work, and the Schedule of Values for Lump Sum Work, minus retainage in accordance with Mississippi Code § 31-5-33 (Attachment G) and any liquidated damages in accordance with Section 3.03. All Applications for Payment submitted by the Contractor, may be subject to audit by MDEQ and its representatives.
- 5.02 Contractor will be paid in arrears of services on a monthly basis after the rendition of services on presentation of a complete and certified Application for Payment to the Engineer for Work performed pursuant to the Contractor’s Bid. Pursuant to Mississippi Code § 31-5-33, retainage in the amount of five percent (5%) shall be withheld until the Project is certified by Contractor and the Engineer as being fifty percent (50%) complete, at which time fifty percent (50%) of the retainage shall be released to Contractor for proportional distributions to Contractor and its subcontractors of the retainage withheld through the first half of the Project. Following fifty percent (50%) completion of the Project, retainage shall be withheld in the amount of two and one-half percent (2.5%). The final payment and remaining retainage shall be paid to Contractor when the Project is certified by Contractor, MDEQ and its Engineer as having been completed. At no point shall the retainage withheld by Contractor from a subcontractor exceed the retainage withheld by MDEQ from Contractor. Contractor is not required by this section to withhold a retainage from its subcontractors, particularly those that have completed their portion of the Project.
- 5.03 Contractor shall provide the Engineer with a monthly Application for Payment by the 25th of each month. Applications for Payment must be approved by the Engineer prior to being submitted to MDEQ for payment. Payments will be made by MDEQ in accordance with Mississippi Code § 31-7-305 (Attachment G). All payments are subject to the availability of funding as stated in the Standard Contract Terms and Conditions.
- 5.04 Upon final completion and acceptance of the Work and completion of all punch list items from the Final Inspection and approval of Project closeout requirements as defined by Section 01 77 00 – Closeout Procedures, the Engineer will recommend final payment to MDEQ. Final Payment will be made by MDEQ, minus any liquidated damages, in accordance with Mississippi Code § 31-7-305, which will be inclusive of withheld retainage in accordance with Mississippi Code § 31-5-33.

ARTICLE 6 - CONTRACTOR’S REPRESENTATIONS

In order to induce MDEQ to enter into this Agreement, Contractor makes the following representations:

- 6.01 Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Contract Documents.
- 6.02 Contractor has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance, or furnishing of the Work.
- 6.03 Contractor is familiar with and is satisfied as to all federal, state, and local laws and regulations that may affect cost, progress, performance, and furnishings of the Work.
- 6.04 Contractor has read and fully understands all requirements and conditions of all environmental permits that pertain to this Work.
- 6.05 Contractor has obtained all required insurance policies, payment bonds, tax bonds, and performance bonds required by the Contract Documents.
- 6.06 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site that have been identified as “additional information” in Section 9 of the Standard Contract Terms and Conditions. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Time, and in accordance with the other terms and conditions of the Contract Documents.
- 6.07 Contractor is aware of the general nature of the Work to be performed by MDEQ and others at the site that relates to the Work as indicated in the Contract Documents.
- 6.08 Contractor has correlated the information known to Contractor, information and observations obtained from visits to the site, reports, and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- 6.09 Contractor has given MDEQ written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by MDEQ is acceptable to Contractor. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work. When said conflicts, errors, ambiguities, or discrepancies have not been resolved through interpretation or clarification by MDEQ for whatever reason, Contractor has included in its Bid the greater quantity or better quality of Work, or compliance with the more stringent requirement resulting in a greater cost, and such is included in the Contract Price.

ARTICLE 7 - CONTRACT DOCUMENTS

The Contract Documents, which comprise the entire agreement between MDEQ and Contractor concerning the Work includes the following:

- 1. Change Orders, Supplemental Agreements and/or other modifications to the Agreement;
- 2. This Agreement;
- 3. Standard Contract Terms and Conditions;
- 4. Contract Drawings;
- 5. Specifications, including Division 00 through 35 and Appendices;
- 6. Contractor’s Bid, including all subparts and documents submitted therewith;
- 7. Notice of Award;
- 8. Notice to Proceed;
- 9. Addenda to the Invitation for Bids;
- 10. Invitation for Bids;
- 11. Performance Bond;

- 12. Payment Bond;
- 13. Tax Bond;
- 14. Insurance Certificates and Endorsements; and
- 15. All permits and environmental conditions pertaining to the Work.

The documents listed above are attached to this Agreement (except as expressly noted otherwise above). The Contract Documents may only be amended, modified, or supplemented as provided in Sections 22 through 24 of the MDEQ Standard Contract Terms and Conditions. In the event of a conflict in the provisions of the Contract Documents, the terms of the document listed first above shall control.

This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

IN WITNESS, WHEREOF, MDEQ and Contractor have signed this Agreement.

This Agreement will be effective on _____, 20____ (Which is the Effective Date of the Agreement).

MDEQ _____

Contractor _____

By _____

By _____

(CORPORATE SEAL)

Address

Address

Mississippi License No. _____

(If Contractor is a corporation, attach evidence of authority to sign).

END OF SECTION 00 52 15

SECTION 01 20 00

MEASUREMENT AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements to be used for the basis of measurement and payment. The Contractor shall receive and accept the compensation provided in the Bid Form as full payment for furnishing all materials, labor, tools, and equipment for performing all operations necessary to complete the Work under the Contract. Responsibility and payment for any loss or damage to the Work or any portion thereof shall be governed by Sections 14 and 15 of the Standard Contract Terms and Conditions. Payment for all loss or damages arising from the nature of the Work, or from the action of the elements or any unforeseen difficulties, encountered during the Work until final acceptance by MDEQ will be the responsibility of the Contractor.
- B. Bid prices for the various work items are to establish a total price for completing the Project in its entirety. The Contractor shall include in the Bid any item for which a separate pay item has not been established in the Bid Form, to reflect the total price for completing the Project in its entirety as depicted on the Construction Drawings and specified herein. The Contractor must include all costs for this Project to complete all work, in total, designated in the Construction Drawings, specifications, and Bid Form.

1.02 SUBMITTALS

- A. The following submittals shall be submitted in accordance with **SECTION 01 33 00 - SUBMITTAL PROCEDURES**.
- B. Schedule of Values
 - 1. The Contractor will submit a Schedule of Values on Contractor's standard form acceptable to MDEQ in PDF for review and approval prior to the first Application for Payment. List payment items sequentially in the same order as they appear in the Bid Form.
 - 2. Lump sum items are to have adequate breakdown of components to facilitate evaluating completeness for payment in accordance with SECTION 01 29 73 – SCHEDULE OF VALUES. Breakdown components shall appear directly under the payment item heading to which they apply.
 - 3. The Contractor will revise the schedule to list approved Change Orders with each Application for Payment. The Contractor will submit revised Schedule of Values in accordance with this Specification.
- C. Construction Schedule

1. Within 10 calendar days after effective date of Contract, the Contractor shall prepare and submit, to the Engineer for approval, a construction schedule in the form of a progress chart. The Contractor shall indicate on the progress chart the bid items contained in the Contract showing the amount of the item and its relative weighted percentage of the total Contract. The Contractor may separate features of work under each item to show salient work elements such as procurement of materials, plants, and equipment, and supplemental work elements such as excavation, fill, etc. These salient features shall total to the cost and weighted percentages shown for the major bid item. When quantity variations impact the weighted percentages of a separate item by five percent (5%) or more, the Contractor shall revise the contract progress charts to accurately reflect the impact of such variations.
2. Submit copies of the updated construction schedule to the Engineer for each Application for Payment. Changes that have occurred since the last update shall be clearly marked.

1.03 MEASUREMENT

- A. Measurement for Payment for this Project is based upon completion of the Work in accordance with Construction Drawings and Specifications for each of the items. Field and/or Plan measurements will determine the percent complete of work components when listed on the approved Schedule of Values. Measurements will be made using linear, area, volumetric units, or by units quantity counts, as listed on the ATTACHMENT D – BID FORM for unit quantity items and at the Engineer's sole discretion for lump sum items.
- B. The Contractor will take all measurements and compute quantities. The Engineer will verify measurements and quantities as appropriate.
- C. The Contractor will assist MDEQ by providing necessary equipment, workers, and survey personnel as required.
- D. Measurement Devices:
 1. Weigh Scales: Inspected, tested, and certified by the applicable State Weights and Measures department within the past year.
 2. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle.
 3. Metering Devices: Inspected, tested, and certified by the applicable State department within the past year.
- E. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord, in feet and hundredths of a foot.
- F. Measurement by Area: Measurement by square dimension using mean length and width or radius, in feet and hundredths of a foot.
- G. Field Measurement of Volume: Measured by cubic dimension using mean length, width, and height or thickness, in feet and tenths of a foot. Measurement of materials will be based on difference between the pre-construction and post-construction surveys of materials in place, completed, and accepted.
- H. Plan Measurement (PM): In units as defined on the Bid Form, and as measured from the Construction Drawings.
- I. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.
- J. Measurement of Material Using Barge Displacement Tables

1. If material is delivered by barge, the weight (tonnage) for payment will be determined by barge displacement.
 - a. Suitably mark each barge with a displacement gaging location at or near each corner of the barge. For hopper barges, two amidships on opposite sides should also be marked. Mark each gaging location with orange paint on the deck and side of the barge. For barges with rakes, place the displacement gaging marks at each corner of the box section between the rakes. If a barge has a box end or ends, place the gaging locations approximately 4 feet from the box end(s).
 - b. Measure the freeboard at the six gaging locations on hopper barges or the four gaging locations on deck barges and determine the displacement by the use of "Standard Barge Table" (SBT) from the average of these measurements. The SBT for each barge shall be certified by a licensed marine architect or other approved certifying official.
 - c. Calculate the displacement before and after barge unloading; the difference between these values will be the measure of quantity delivered.
 - d. Load barges so that the readings taken at the gaging locations do not vary more than 3.0 feet port to starboard fore and aft and do not vary more than 1.0 foot port to starboard. If such is not the case, trim the barge by shifting the material until this limit is reached, before the measurement will be accepted. For deck barges, calculate the draft from the average of all four readings. For hopper barges, calculate the draft from the average of all six readings, weighting the readings of the middle gage at double those of the end gages: $(G1 + G2 + 2xG3 + 2xG4 + G5 + G6)$ divided by 8 = average draft.
 - e. All barges used in transporting material shall be free of leaks that would render accurate gauging difficult. Provide facilities for inspecting the hold of each barge to determine whether leakage is occurring. Provide each barge with adequate pumping facilities, and if water is found to be accumulating in the hold, pump the barge dry before each gaging, both before and after unloading. Leave rejected and unacceptable material aboard the barge until after the final readings have been taken.
2. If barge tables are furnished for fresh water and if it is believed that barge displacement measurements made within the contract limits of the work are being taken in water that has salinity, the Contractor has the option of obtaining water samples and determining densities or unit weights of these samples.
 - a. Take these water samples in accordance with ASTM D3370 (Practice A – Grab Samples) at depths of 4 and 8 feet in the area where measurements are made.
 - b. Perform water sampling when the barges are measured for quantities, both when fully loaded and when empty.
 - c. Take water samples, as witnessed by the Engineer, with the use of "Polypro" 2000 milliliters water sampler, or equal. Determine densities as specified in ASTM D1429 (Method D-Hydrometer Method).
 - d. Testing shall be done for the Contractor by a certified testing laboratory, and test results certified by the laboratory.
 - e. After review and approval of the test results by the Engineer, the average of the densities obtained at 4 and 8 feet will be used as the suitable salt water conversion factor. In all calculations (fully loaded and empty), the unit weight of 62.4 pounds per cubic foot will be used for fresh water.

1.04 BASIS FOR PAYMENT

- A. Unless indicated on the Contract Documents, all work indicated on the Construction Drawings and specified in the Contract Documents shall be included in the Contract Sum indicated on the Bid Form.
- B. Prices stated in the Bid Form shall include all costs and expenses for taxes (inclusive of applicable Contractor's tax per Miss. Code Ann. § 27-65-21), labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the Work as depicted on the Construction Drawings and specified herein. The basis of payment for an item in the amount shown in the Bid Form shall be in accordance with the description of that item provided in this Section.
- C. The Contractor's attention is again called to the fact that the quotations for the various items of work are intended to establish a total price for completing the Work in its entirety. Should the Contractor feel that the cost for any item of work has not been established by the Bid Form, the Contractor shall include the cost for that work in another applicable bid item, in order that the Bid for the project reflects the total price to be paid by the Agency for completing the Work in its entirety.
- D. Changes in the Contract Price and Contract Time require prior authorization in writing from MDEQ and the Engineer, in the form of a Change Order. Refer to Section 22 of the Standard Contract Terms and Conditions for Change Order Procedures. The Contractor is responsible for verification of all bid quantities and to report to the Engineer any discrepancies found prior to ordering materials and/or equipment for construction. Refer to Sections 9 and 10 of the Standard Contract Terms and Conditions.
- E. The various major items of Work will be paid for either by 1) the quantity of the actual Work completed by the Contractor and accepted by the Engineer multiplied by the unit price or 2) a pro rata amount based on the percentage complete of any lump sum Bid Item. The Work shall include all miscellaneous and ancillary items necessary to construct a complete and functional Project.

1.05 SCHEDULE OF VALUES

- A. The below descriptions generally outline the scope of work required for those elements of the Work to be paid for under each item listed in the Bid Form. The Contractor shall submit a Schedule of Values per SECTION 01 29 73 – SCHEDULE OF VALUES and shall be consistent with SECTION 01 33 00 – SUBMITTAL PROCEDURES.

1.06 PAYMENT OPTIONS

- A. Basis of Payment for Unit Price Items
 - 1. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Engineer determine payment.
 - 2. If the actual Work requires more or fewer quantities than those quantities indicated, the Contractor will provide the required quantities at the unit prices contracted.

- B. Basis of Payment for Lump Sum Items – Payment for lump sum items for this Project will be made at the lump sum price named in the Contract. The contract price shall constitute full compensation for each item, including all required labor, products, tools, equipment, plant, transportation, services and incidentals, erection, application or installation of an item of the Work, overhead, and profit as required to complete the item as indicated in the Construction Drawings and Specifications.
- C. Progress Payments
 - 1. Application for Payment shall be submitted to MDEQ or the Engineer at the times specified in Paragraph 5.03 of the Agreement (SECTION 00 52 15).
 - 2. Progress payments will be made upon receipt and acceptance of the post-construction surveys and daily quality control surveys. Surveys will be evaluated based on conformance with the Engineer-Approved Contractor Work Plan and the Construction Documents, including elevations, alignments, allowable tolerances, and minimum lines and grades. The Contractor is required to have all pre-construction and post-construction surveys performed by a third-party independent Mississippi-licensed professional surveyor.
 - 3. Progress and final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Engineer multiplied by a unit price of the item. Final payment for unit price Work will be accomplished by reconciliation of Change Orders to adjust quantities at the end of the Project.
 - 4. Progress payment for Work governed by lump sum prices will be made in accordance with the approved Schedule of Values.
 - 5. No payment, partial or complete, will be made for defective or rejected Work. The Contractor will not receive payment for any material placed outside of the horizontal or vertical limits (allowable tolerances) of the placement limits shown and noted in the Construction Drawings and Specifications. Any material that is deposited in places not designated or approved by the Engineer or MDEQ may be required to be removed and the Contractor will be required to deposit such misplaced material where directed at Contractor's expense or will be deducted from the payment quantity. Additional clean-up and environmental damage mitigation requirements may be directed by MDEQ. Such efforts will be entirely at the expense of the Contractor and any fines or penalties will be the responsibility of the Contractor.
 - 6. No separate payment will be made for additional labor and materials required for accomplishing the Project in its entirety, unless a Change Order is entered. All labor, materials, and incidental costs shall be included for payment as part of the Bid and the Contract, under the several scheduled items of the Project.

1.07 DESCRIPTION OF WORK ITEMS AND SCHEDULE OF VALUES

- A. The Work items are described in order to assist the Contractor in the preparation of the Bid and to assist the Engineer in the evaluation of Bids and progress payments during construction. The Contractor shall submit a Schedule of Values containing the Work components of each lump sum Bid Item in Contractor's Bid for approval prior to the first Application for Payment for work in progress.
- B. No separate payment will be made for any testing and/or surveying performed to complete the Work, except for pre-construction and post-construction surveying as shown on Bid Form. Costs for testing and/or surveying (as applicable), except for pre-construction and post-construction surveying, shall be included in the cost to complete the work item.

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- C. No separate payment will be made for furnishing a fully operated boat with capacity for transporting at least six people for unfettered transportation of MDEQ and Engineer personnel for the entire duration of the construction project as described in Section 01 31 00 – PROJECT MANAGEMENT AND COORDINATION.
- D. Submittals are considered part of the Contractor's administrative and overhead costs. The Contractor will not be compensated separately for submittals required by these specifications or those listed on the Construction Drawings.
- E. Separate payment will not be made for providing and maintaining an effective quality control program or ensuring environmental compliance, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bid Schedule.
- F. For the purpose of the work items listed below, complete installation will mean the inclusion of mobilization and demobilization, quality control documentation of materials, photographic documentation, delivery of materials to the Project site, installation of materials and any ancillary components, surveying during and after construction, and any overhead-related items associated with Division 01 of the Contract Documents.
- G. Payment for these items will be made according to the Bid Form and as defined in the Technical Specifications. Below is a list of Bid Items for the Work.

Work includes but is not limited to the following bid items:

Base Bid

General Bid Items

Item No.	Bid Item	Reference Section
1	Navigational Signage	35 12 10
2	Floating Turbidity Curtain	31 05 21

Phase 1

Item No.	Bid Item	Reference Section
3	Mobilization / Demobilization	02 00 00
4	Composite Geogrid Beneath Sand Berm	31 05 21
5	Berm Material	35 73 13
6	Rock Riprap	35 31 19

Phase 2

Item No.	Bid Item	Reference Section
7	Mobilization / Demobilization	02 00 00
8	Berm Material	35 73 13
9	Erosion Control Blanket	31 35 19
10	Coastal Plantings- Black Needlerush	32 05 34
11	Coastal Plantings- Saltmarsh Hay	32 05 34
12	Coastal Plantings- Smooth Cordgrass	32 05 34
13	Rock Riprap	35 31 19

Alternate #1 – Pre-Vegetated Erosion Control Slope Protection

Item No.	Bid Item	Reference Section
1	Pre-Vegetated Erosion Control Mat	31 35 19
2	Erosion Control Blanket (15' Strip)	31 35 19
3	Coastal Plantings- Smooth Cordgrass	32 05 34

1.08 DEFECTIVE WORK

- A. The Contractor shall replace the Work, or portions of the Work, not conforming to specified requirements as directed by the Engineer in accordance with Section 13 of the STANDARD CONTRACT TERMS AND CONDITIONS (ATTACHMENT F).
- B. If, in the opinion of the Engineer or of MDEQ, it is not practical to remove and replace the Work, the Engineer will direct one of the following remedies:
 - 1. The defective Work may remain, but the unit or lump sum price for the item will be adjusted to a new price. The adjustment will be performed at the sole discretion of MDEQ. The determination for the adjustment will be done by the Engineer, whose determination will be final.
 - 2. The defective Work will be partially repaired according to the instructions of the Engineer, and the unit or lump sum price will be adjusted to a new price at the sole discretion of the Agency. The determination for the adjustment will be done by the Engineer, whose determination will be final.
- C. The individual specification sections may modify these options or may identify a specific formula or percentage sum/price reduction.
- D. The authority of the Engineer to assess the defect and identify payment adjustment is final.

1.09 NON-PAYMENT

- A. Notwithstanding any of the foregoing, payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable.
 - 2. Products determined as unacceptable before or after placement.
 - 3. Products damaged in transit, during handling, or due to improper storage.
 - 4. Products not completely unloaded from the transporting vehicle.
 - 5. Products placed beyond the tolerance of the required Work.
 - 6. Loading, hauling, and disposing of rejected products

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 REQUESTING PROGRESS PAYMENT

- A. Provide PDF or other electronic copies of supporting invoices and quantity measurements to support all requested earnings. Ensure that sum of payment activities do not exceed contract award funding amounts.

END OF SECTION 01 20 00

SECTION 01 29 00

PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements necessary to prepare and process applications for payments.

1.02 RELATED SECTIONS

- A. Attachment F - Standard Contract Terms and Conditions
- B. Section 00 52 15 – Agreement
- C. Section 01 31 00 – Project Management and Coordination
- D. Section 01 32 00 – Construction Progress Documentation
- E. Section 01 32 23 – Survey and Layout Data
- F. Section 01 32 33 – Photographic Documentation
- G. Section 01 33 00 – Submittal Procedures
- H. Section 01 35 43 Environmental Protection
- I. Section 01 77 00 – Closeout Procedures

1.03 SUBMITTALS

- A. Submit one (1) searchable PDF file of the Application for Payment to Engineer by the 25th of each month in accordance with the requirements set forth in SECTION 00 52 15 – AGREEMENT and SECTION 01 33 00 – SUBMITTAL PROCEDURES.

1.04 FORMAT AND DATA REQUIRED

- A. Submit applications typed on the Application for Payment form approved by MDEQ, with itemized data typed on 8-1/2" x 11" white paper continuation sheets.
- B. Provide itemized data on continuation sheet:
 - 1. Format, schedules, line items and values: Those of the Schedule of Values accepted by MDEQ's Representative.

1.05 PREPARATION OF EACH PROGRESS APPLICATION FOR PAYMENT

- A. Application Form:
 - 1. Fill in required information, including information for Change Orders executed prior to date of submittal of application.

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2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
3. Execute certification with signature of a responsible officer of Contractor.

B. Continuation Sheets:

1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
3. List each Change Order executed prior to date of submission, at the end of the continuation sheets.
4. Calculate the retainage amount in accordance with Mississippi Code 31-5-33 (Attachment G). See Article 5, Paragraph 5.02 in Section 00 52 15 – Agreement for retainage requirements.
5. Calculate the total amount due by subtracting the retainage and any liquidated damages from the total earned and previously paid.

1.06 SUBSTANTIATING DATA FOR PROGRESS APPLICATION FOR PAYMENTS

A. Contractor shall submit suitable information, including the following, with a cover letter identifying:

1. Project;
2. Application number and date;
3. Updated Construction Schedule in accordance with Section 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION;
4. Construction Photographs in accordance with Section 01 32 33 – PHOTOGRAPHIC DOCUMENTATION;
5. All Environmental Compliance documentation in accordance with Section 01 35 43 – ENVIRONMENTAL PROTECTION and any newly issued permits/authorizations associated with this project; and
6. Progress Payment Survey documentation in accordance with Section 01 32 23 – SURVEY AND LAYOUT DATA.

B. Submit one copy of data and cover letter for each copy of application.

1.07 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in Application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01 77 00 – CLOSEOUT PROCEDURES.
- C. Submit Release of Claims form to be provided by MDEQ.

1.08 SUBMITTAL PROCEDURE

A. Submit Application for Payment to Engineer at:

John C. Bourgeois, P.E.
Allen Engineering and Science, Inc.
6360 I-55 North, Suite 330, Jackson, MS 39211 (by mail)
6360 I-55 North, Suite 330, Jackson, MS 39211 (for direct delivery)
JBourgeois@AllenES.com (by email)

B. Number: One (1) searchable PDF copy of each Application.

C. When Engineer finds Application properly completed and correct, he/she will transmit certificate for payment to MDEQ at invoices@mdeq.ms.gov.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01 29 00

SECTION 01 29 73

SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 SUMMARY

- A. Procedure for submission of a certified Schedule of Values for review and approval by the Engineer and MDEQ.

1.02 RELATED SECTIONS

- A. Attachment D – Bid Form
- B. Section 01 32 00 – Construction Progress Documentation
- C. Section 01 33 00 – Submittal Procedures
- D. The Contractor shall provide a Schedule of Values in format similar to the Engineers Joint Contract Documents Committee (EJCDC) Schedule of Value Forms.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

3.01 PREPARATION

- A. Upon receipt of the Notice of Award, Contractor shall commence preparation of a Schedule of Values for Lump Sum items in accordance with the Bid Form (Attachment D).
- B. Schedule of Values format and content shall be approved by the Engineer and MDEQ prior to submittal of first payment request.
- C. Contractor shall coordinate the preparation of a Schedule of Values with preparation of the Construction Schedule as set forth in Section 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION. The corresponding values from the Bid Form (Attachment D) shall match with the approved Schedule of Values.
- D. Include the following Project identification on a certified Schedule of Values:
 - 1. Project name and location;
 - 2. Project Number;
 - 3. Contract #;
 - 4. Contractor name; and
 - 5. Date of Submittal.

- E. The Schedule of Values shall be in an Excel format, tabular form with separate columns and shall include the following items:
 - 1. Related Specification Section and Division;
 - 2. Description of Work;
 - 3. Name of Subcontractor, manufacturer or supplier;
 - 4. Dollar value, quantity and unit of measure of each line item; and
 - 5. Percentage of Contract amount to nearest 1/100th%, adjusted to total 100%.
- F. Provide a breakdown of the Contract Amount in enough detail acceptable to Engineer and MDEQ to facilitate continued evaluation of Application for Payment and progress reports.
- G. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each Lump Sum line item.
- H. Temporary facilities and other cost items that are not direct cost of actual work-in-place shall be shown as separate line items.
- I. An approved certified Schedule of Values shall serve as the basis for the monthly certified Application for Payment.
- J. If at any time, MDEQ determines, in its reasonable discretion, that the Schedule of Values does not approximate the actual cost being incurred by Contractor to perform the Work, Contractor shall prepare a revised Schedule of Values, which then shall be used as the basis for future progress payments. Without changing the Contract Amount, MDEQ reserves the right to require Contractor:
 - 1. To increase or decrease amounts within the line items in the Schedule of Values; and
 - 2. To conform the price breakdown to MDEQ accounting practice.

3.02 SUBMITTAL

- A. Contractor shall submit one (1) searchable PDF digital file and one (1) digital Excel file of the Schedule of Values for review and approval at least 14 days before the first Application for Payment.
- B. MDEQ will review and if necessary, return the submitted Schedule of Values with summary comments noting items not in compliance with the requirements of the Contract Documents.
- C. Contractor shall revise the submitted Schedule of Values and return one (1) searchable PDF digital file and one (1) digital Excel file within three (3) days of receipt of summary comments.

END OF SECTION 01 29 73

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 SUMMARY

A. This Section addresses:

1. **General requirements;**
2. **Contractor Work Plan;**
3. **Preconstruction conference;**
4. **Request for Information (RFIs);**
5. **Schedule finalization meeting;**
6. **Progress meetings;**
7. **Pre-installation conferences; and**
8. **Final Inspection.**

1.02 RELATED SECTIONS

- A. Section 01 32 00 – Construction Progress Documentation**
- B. Section 01 33 00 – Submittal Procedures**
- C. Section 01 40 00 – Contractor Quality Control**
- D. Section 01 77 00 – Closeout Procedures**

1.03 SUBMITTALS

- A. Construction Work Plan: Prior to the start of construction, the Contractor shall provide a Construction Work Plan containing, at a minimum, the following:**
 1. **Overall Project work sequencing and equipment:**
 - a. **Order and sequence in which work shall be performed.**
 - b. **Number, types, and capacity of equipment to be used.**
 - c. **Hours of operation.**
 - d. **Estimated schedule.**
 2. **Specific methods, procedures, and equipment to address the following:**
 - a. **Rock Riprap construction:**
 - 1) **Protection of the geocomposite layers during material placement.**
 - 2) **Installation method of breakwater stone.**

- 3) Placement to distribute the load across the compressible foundation.
- 4) Survey methods for control of work and progress surveys.
- 5) Stone volumes based on pre-construction survey.
- 6) Verification of design template.
- 7) Settlement monitoring and output format.
- 8) Toe construction under water.

b. Methods for procuring and installing temporary and permanent aids to navigation in accordance with SECTION 35 12 10 – AIDS TO NAVIGATION.

B. Subcontract List: Prepare a digital, written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

C. Key Personnel Names: Within 10 days of Notice to Proceed, submit a list of key personnel assignments, including superintendent and other personnel for the Project. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including office and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

1. Post copies of list in project meeting room, in temporary field office, and the Engineer/MDEQ construction trailer, if any. Keep list current at all times.
2. Changes in key personnel shall only occur with written permission of MDEQ. Engineer/MDEQ shall have the right of reasonable rejection and approval of staff as provided in Section 6 of the Standard Contract Terms and Conditions.
3. Engineer/MDEQ has the right to raise and discuss adverse issues about any staff or subcontractor employed by the Contractor.

1.04 PROJECT COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate submittals, surveying, availability of equipment, delivery of materials to ensure efficient use of resources and time management.

3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 1. Prepare similar memoranda for MDEQ and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 1. Preparation of Contractor's construction schedule;
 2. Preparation of the schedule of values;
 3. Delivery and processing of submittals;
 4. Progress meetings;
 5. Pre-installation conferences; and
 6. Project closeout activities.

1.05 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI using the supplied form (attached at end of this specification).
 1. All RFIs must be submitted by the Contractor. Engineer will return RFIs submitted to Engineer by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
 3. Do not use RFIs for any purpose other than to request additional information or interpretation of the Contract Documents.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
 1. Project name;
 2. Project number;
 3. Date;
 4. Name of Contractor;
 5. Name of Engineer;
 6. RFI number, numbered sequentially;
 7. RFI subject;
 8. Specification Section number, title and related paragraphs, as appropriate;

9. Drawing number and detail references, as appropriate;
 10. Field dimensions and conditions, as appropriate;
 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature; and
 13. Attachments: Include sketches, descriptions, measurements, photos, product data, shop drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, location and/or station number, and details of the affected area or facilities impacted by the RFI.
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Engineer.
1. Attachments shall be electronic files in searchable Adobe Acrobat PDF format.
- D. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow seven (7) working days for Engineer's response for each RFI. RFIs received by Engineer after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests solely for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Engineer's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt of additional information.
 3. Engineer's action on RFI's that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Order request according to the Change Order procedures in Section 22 of the Standard Contract Terms and Conditions.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within seven (7) days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:
1. Project name;
 2. Name and address of Contractor;
 3. Name and address of Engineer;

4. RFI number including RFIs that were returned without action or withdrawn;
 5. RFI description;
 6. Date the RFI was submitted; and
 7. Date Engineer's response was received.
- F. On receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within seven (7) days if Contractor disagrees with response.
1. Identification of related minor change in the Work, Work Change Order Directive, and Change Order request, as appropriate.

1.06 INSPECTIONS

- A. Contractor shall provide transportation via boat for MDEQ and Engineer to the Site in order for inspections of the Work to be completed.
1. MDEQ and/or Engineer shall notify Contractor in advance of inspections and the number of personnel requiring transportation to the Site via boat.

1.07 MDEQ/ENGINEER OFFICE SPACE

- A. If Contractor has office space onsite, then office space to accommodate 1 representative from MDEQ or Engineer shall be provided. Office space provided for MDEQ or Engineer, if any, shall be cleaned and furnished in the same manner as the Contractor office space.

1.08 PROJECT MEETINGS

1. **General:** Schedule and conduct meetings and conferences to update relevant stakeholders on progress of the Work. Conference calls shall be added to all conferences or meetings, when necessary, in order to maintain social distancing protocols. All meetings may be held digitally instead of in-person in accordance with local public health authority guidelines. Contractor shall coordinate with MDEQ and Engineer to setup conference calls to include all relevant project personnel. **.Attendees:** Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting.
 - a. Notify MDEQ and Engineer of scheduled meeting dates and times five (5) days in advance.
 - b. The MDEQ and/or Engineer shall be permitted to attend meetings held at the Project Site at their discretion.
 - c. Representatives of contractors, subcontractors, and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
2. **Agenda:** Prepare the meeting agenda. Distribute the agenda to attendees including conference call-in numbers and passwords for attendance.
3. **Minutes:** Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes within five (5) days of the meeting:
 - a. To all participants in meetings;
 - b. To MDEQ and Engineer; and
 - c. To Contractor.

4. Engineer will schedule and administer pre-construction meeting, regularly scheduled progress meetings, and specially called meetings throughout the progress of the Work. Engineer will:
 - a. Prepare agendas for meetings, including items requested by MDEQ and Contractor;
 - b. Notify MDEQ and Contractor five (5) days in advance of meeting date; and
 - c. Preside at such meetings.
5. Contractor will schedule and administer pre-installation conferences. Contractor shall:
 - a. Attend all meetings;
 - b. Arrange for the attendance of Contractor's agents, employees, subcontractors, and suppliers as appropriate to the agenda; and
 - c. Make physical arrangements for meetings, as necessary.

B. PRECONSTRUCTION CONFERENCE

1. Engineer will schedule a conference after Notice of Award and before commencement of the Work.
2. Location: A central site, convenient for all parties, or held digitally.
3. The representatives that should be in attendance include:
 - a. MDEQ's Representative;
 - b. Program Manager's Representative(s);
 - c. Engineer and Engineer's professional consultants;
 - d. Resident Project Representative;
 - e. Contractor's Superintendent;
 - f. Major Subcontractors;
 - g. Major Suppliers; and
 - h. Others as appropriate.
4. The agenda may include:
 - a. Contractual matters;
 - b. Submission of executed bonds and insurance certificates;
 - c. Distribution of Contract Documents;
 - d. Submission of list of subcontractors and suppliers, list of products, Schedule of Values, and progress schedule;
 - e. Designation of key personnel representing the parties in Contract and the Engineer;
 - f. Procedures and processing of field decisions, submittals, substitutions, applications for payments, cost proposal requests, Change Orders and Contract closeout Procedures;
 - g. Establishment of official date of Notice to Proceed (NTP);
 - h. Establishment of mailing address and local office for the Contractor;
 - i. Establishment of cut-off dates and payment request submittals;
 - j. CQC plan as defined in Section 01 40 00 – Contractor Quality Control;

- k. Construction scheduling and updates;
 - l. Construction photographs and video requirements;
 - m. Off-shore inspections and off-shore access by Engineer, MDEQ and other regulatory agencies;
 - n. Environmental permit compliance during construction;
 - o. Critical work sequencing;
 - p. Major material deliveries and priorities;
 - q. Procedures for maintaining Record Documents;
 - r. Use of Engineers/MDEQ's office facilities, if any, including:
 - 1) Office, work and storage areas;
 - 2) MDEQ's requirements; and
 - 3) Cleaning requirements;
 - s. Construction facilities, controls and construction aids;
 - t. Temporary utilities provided by Contractor;
 - u. All safety and first-aid procedures are responsibility of the Contractor;
 - v. Hurricane/Storm Preparedness Plan;
 - w. Security and housekeeping procedures as required by the Agency;
 - x. Procedures for testing; and
 - y. Providing electronic design files to the Contractor.
5. **The Contractor shall bring to this conference the following items in either completed or draft form:**
- a. Accident Prevention Plan;
 - b. Activity Hazard Analysis;
 - c. Job Hazard Analysis for each employee classification;
 - d. Safety Data Sheets;
 - e. Letter appointing representatives;
 - f. List of Subcontractors;
 - g. Listing of First Aid and CPR trained personnel; and
 - h. Work Plan.

C. SCHEDULE FINALIZATION MEETING

- 1. Contractor will schedule at least 10 days before submission of the first Application for Payment
- 2. Location: A central site convenient for all parties, or held digitally.
- 3. The representatives that should be in attendance include:
 - a. MDEQ's representative;
 - b. Engineer;

- c. Contractor; and
 - d. Others, as appropriate.
4. The suggested agenda for this meeting is:
- a. Schedule of Values;
 - b. Construction Schedule;
 - c. Submittal Schedule; and
 - d. Questions.

D. PROGRESS MEETINGS

1. Engineer will schedule and administer monthly meetings throughout progress of the Work.
2. Location of the Meetings: The project field office of the Contractor, or other locations arranged for by Contractor, convenient to all parties
3. The representatives that should be in attendance include:
 - a. Agency's Representative;
 - b. Engineer, and his professional consultants as needed;
 - c. Resident Project Representative;
 - d. Contractor's Superintendent;
 - e. Subcontractors as appropriate to the agenda;
 - f. Suppliers as appropriate to the agenda; and
 - g. Others, as appropriate.
4. The suggested agenda for this meeting is:
 - a. Review minutes of previous meetings;
 - b. Review unresolved issues from last meeting;
 - c. Safety;
 - d. Contractor's Construction Schedule:
 - 1) Review progress since the last meeting;
 - 2) Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule;
 - 3) Determine how behind schedule activities will be expedited; secure commitments from parties involved to do so;
 - 4) Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time;
 - 5) Identification of problems that impede planned progress;
 - 6) Planned progress during succeeding work period; and
 - 7) Make necessary revisions to construction schedule.

- e. Review of submittals schedule and status of submittals;
- f. Review of material delivery schedules;
- g. Access;
- h. Site Utilization;
- i. Temporary facilities;
- j. Maintenance of quality and work standards;
- k. Status of RFIs;
- l. Status of proposal request;
- m. Pending changes;
- n. Status of Change Orders;
- o. Unanticipated adverse weather days documentation;
- p. Pending claims and disputes;
- q. Documentation of information for payment request;
- r. Environmental compliance; and
- s. Long-term weather conditions.

E. PRE-INSTALLATION CONFERENCES

1. When required in individual specification Section, Contractor will convene a pre-installation conference at work site prior to commencing work of the Section.
2. Contractor will require attendance of parties directly affecting, or affected by, work of the specific Section.
3. Contractor will notify Engineer at least four (4) days in advance of meeting date.
4. Contractor will prepare agenda, preside at conference, record minutes, and distribute copies within two (2) days after conference to participants, with two (2) copies to Engineer and Agency.
5. Review conditions of installation, preparation and installation procedures, and coordination with related work.

F. FINAL INSPECTION

1. Contractor shall notify the Engineer and Agency and certify that the Project is substantially complete and request a date and time for a Final Inspection.
2. Final Inspection will be conducted in accordance with the procedures identified in Section 01 77 00 CLOSEOUT PROCEDURES.

1.09 HAZARD ANALYSIS PLAN: THE FOLLOWING ADDITIONAL ITEMS WILL BE REQUIRED UNDER THE CONTRACT:

- A. A Job Hazard Analysis is required for each person employed on this job. Prior to beginning the job, a Job Hazard Analysis shall be prepared by the Contractor. The analysis will address the hazards in each job classification and will present the procedures and safeguards necessary to provide a safe working environment for that employee. The Contractor shall provide a means to assure that each employee has an opportunity to provide input to his/her Job Hazard Analysis and proof of employee understanding by having the employee sign a copy of his/her analysis.**
- B. Contractor should assure an understanding on the part of employee and supervisor alike that no new task having potential as a hazard will be undertaken without thorough discussion between them to determine the safest means to accomplish the task. The Job Hazard Analysis will then be modified accordingly.**
- C. It is emphasized that areas of the Work site are not readily accessible and that several hours may pass before an individual can be transported from the Work site to a medical treatment facility. At least two employees per shift shall be qualified to administer First Aid and CPR.**

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

SECTION 01 32 00

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during the performance of the Work, including the following:
 - 1. Startup construction schedule;
 - 2. Contractor's construction schedule;
 - 3. Updated construction schedule with updating report;
 - 4. Daily construction reports;
 - 5. Material location reports;
 - 6. Site condition reports; and
 - 7. Special reports.

1.02 RELATED DOCUMENTS

- A. Attachment F – Standard Contract Terms and Conditions
- B. Section 01 29 00 – Payment Procedures
- C. Section 01 31 00 – Project Management and Coordination
- D. Section 01 33 00 – Submittal Procedures

1.03 SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. Working electronic copy of schedule file; and
 - 2. Fully searchable PDF electronic file of schedule;
- B. Startup Construction Schedule
 - 1. Approval of cost-loaded, startup construction schedule will not constitute approval of schedule of values for cost-loaded activities.
- C. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.
- D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

1. Submit a working electronic copy of schedule, as described in Section 2.03, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- E. Updated Construction Schedule with Updating Report: Submit with Applications for Payment.
- F. Daily Construction Reports: Submit the following day by noon.
- G. Material Location and Tracking Reports: Submit at monthly intervals.
- H. Site Condition Reports: Submit at time of discovery of differing conditions.
- I. Special Reports: Submit at time of unusual event.

1.04 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
- C. Secure time commitments for performing critical elements of the Work from entities involved.
- D. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.01 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed (NTP) to date of final completion.
 1. Contract completion date shall not be changed by submission of a schedule that shows an early or later completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 1. Activity Duration: Define activities so no activity is longer than 30 days, unless specifically approved by Engineer.
 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule.
 3. Submittal Review Time: Include review and resubmittal times indicated in Section 01 33 00 - SUBMITTAL PROCEDURES in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 4. Substantial Completion: Indicate completion in advance of date established for substantial completion and allow time for Engineer's administrative procedures necessary for certification of substantial completion.
 5. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion. Final completion shall be within the Contract Time.

- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.
1. Work Restrictions: Show the effect of the following items (if applicable) on the schedule:
 - a. Coordination with existing construction;
 - b. Uninterruptible services;
 - c. Use of premises restrictions;
 - d. Provisions for future construction;
 - e. Anticipated adverse weather delay days as described in Paragraph 23 of Attachment F (Standard Contract Terms and Conditions);
 - f. Seasonal variations; and
 - g. Environmental control.
 2. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Subcontract awards;
 - b. Submittals;
 - c. Fabrication;
 - d. Deliveries;
 - e. Installation;
 - f. Tests and inspections;
 - g. Adjusting;
 - h. Curing (if applicable); and
 - i. Startup and placement into final use and operation (if applicable).
 3. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, and final completion.
- E. Cost Correlation: Superimpose a cost correlation timeline, indicating planned and actual costs. On the line, show planned and actual dollar volume of the Work performed as of planned and actual dates used for preparation of payment requests.
1. See Section 01 29 00 Payment Procedures for cost reporting and payment procedures.
- F. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update and submit in accordance with Section 01 31 00 – Project Management and Coordination. Summarize the following issues:
1. Unresolved issues;

2. Unanswered Requests for Information;
 3. Rejected or unreturned submittals;
 4. Notations on returned submittal; and
 5. Pending modifications affecting the Work and Contract Time.
- G. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.
- H. Critical Path Identification: The Critical Path Method (CPM) schedule should clearly identify all activities that are on the critical path.
- 2.02 STARTUP/MOBILIZATION CONSTRUCTION SCHEDULE
- A. Bar-Chart Schedule: Submit startup, horizontal, bar-chart-type construction schedule within 7 days of date established for the Notice to Proceed.
- 2.03 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)
- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule using Microsoft Project or similar software approved by the MDEQ within 21 days of date established for the Notice to Proceed. Base schedule on the startup construction schedule and additional information received since the start of Project. Approval of this comprehensive schedule is a condition precedent for payment.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.
- 2.04 REPORTS
- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. Date of Daily Report;
 2. Shift detailed in the report;
 3. List of subcontractors at Project site;
 4. List of separate contractors at Project site;
 5. Actual count of personnel at Project site;
 6. Regulatory agency personnel at Project site;
 7. Equipment utilized including production time and downtime at Project site;
 8. Quantities of materials removed, delivered or placed in the last 24 hours and placed to date; and cumulative percent completion of the Project;.
 9. Description of activity performed for the last 24 hours as applicable;

10. Environmental Compliance activities performed for the past 24 hours;
 11. High and low temperatures and general weather conditions, including presence of rain or snow, high winds, high waves, high tide and low tide and whether weather conditions represent an adverse weather date;
 12. Description of any downtime, delay, quality control issue or schedule change;
 13. Accidents – including, but not limited to incidents involving people or equipment (first-aid, near miss, OSHA recordable or lost time);
 14. Meetings and significant decisions;
 15. Unusual events (see special reports);
 16. Stoppages, delays, shortages, and losses;
 17. Emergency procedures;
 18. Orders and requests of authorities having jurisdiction;
 19. Change Orders received and implemented;
 20. Construction Change Directives received and implemented; and
 21. Substantial Completion authorized.
- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials in transit, delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items located away from Project site. Indicate the following categories for stored materials:
1. Material stored prior to previous report and remaining in storage;
 2. Material stored prior to previous report and since removed from storage and installed; and
 3. Material stored following previous report and remaining in storage.
- C. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.05 SPECIAL REPORTS

- A. General: Submit special reports directly to Engineer within 1 day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, and response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise MDEQ in advance when these events are known or predictable.

PART 3 - EXECUTION

3.01 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, with Application for Payment, update schedule to reflect actual construction progress and activities. Issue schedule minimum of 48 hours before each regularly scheduled progress meeting. No payment will be processed without an approved construction schedule.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting within 48 hours after such meeting.
 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 3. As the Work progresses, indicate final completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Engineer, MDEQ, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 32 00

SECTION 01 32 23

SURVEYS AND LAYOUT DATA

PART 1 - GENERAL

1.01 SUMMARY

- A. The Contractor shall furnish all labor, equipment, materials, and incidentals necessary to perform surveys required to perform the Work as detailed in the Construction Drawings and herein. The Work includes, but is not limited to preconstruction surveys, quality control surveys, and As-Built surveys and drawings.

1.02 RELATED SECTIONS:

- A. Section 01 20 00 – Measurement and Payment Procedures
- B. Section 01 33 00 – Submittal Procedures
- C. Section 01 35 43 – Environmental Protection
- D. Section 01 40 00 – Contractor Quality Control

1.03 REFERENCES

- A. U.S. Army Corps of Engineers - Hydrographic Survey Manual EM 1110-2-1003.

1.04 SUBMITTALS

- A. The following submittals shall be in accordance with SECTION 01 33 00 - SUBMITTAL PROCEDURES:
 - 1. Survey Plan: The Contractor shall prepare and submit, for approval by the Engineer, a written Survey Plan, presenting the contract survey effort from start to completion. The Survey Plan shall cover, at a minimum, Contractor-conducted layout work (including baseline control) and the required surveys described in this Section.
 - 2. Pre-construction Bathymetric Survey: The Contractor shall submit the xyz survey data within 2 working days of data collection. The electronic files in Portable Document Format (PDF) and CADD files with templates, stone volumes and calculated stone tonnages shall be submitted within 5 working days of data collection. Calculated stone volumes and tonnages should be broken down by breakwater segment.
 - 3. Quality Control (QC) Surveys:

- a. Earthen Berm and Rock Riprap Berm: Contractor shall perform cross-section surveys along the berm crest at maximum intervals of 50 feet on center (along the centerline of the breakwater) with a minimal data density of one (1) elevation shot every 5 linear feet on line. For all surveys, additional elevation shots shall be taken at the bay facing edge and landward edge of the stone layer, along the crest, and at abrupt changes in grade. The cross-sections shall extend 25 feet beyond the toe of the berm. The contractor shall take at least one (1) cross section daily of the most recent portion of the stone breakwater structure installed as part of the QC program. Each section shall be plotted on an 8.5-inch by 11-inch sheet, with reference to a plan view. The cross sections shall show the required lines and grades in accordance with the approved Work Plan, pre- and post-construction survey data and a compilation of estimated quantities utilized.
- b. Settlement Monitoring Surveys: The Contractor shall submit the xyz survey data in tabular form with the survey date within 2 working days of data collection.
- c. As-Built Surveys: Upon project completion and before submitting the final Payment Application, the Contractor shall submit to the Engineer drawings showing as-built conditions of the site. The As-Builts will highlight any deviations to the Construction Drawings and shall include the following:
 - 1) Field changes of dimension and detail;
 - 2) Changes made by Change Order or other Modifications;
 - 3) Details not on original Project Drawings;
 - 4) Pre- and Post-Construction 3D generated surfaces (by the equivalent CADD method for each pre- and post-construction surface); and
 - 5) A plot of the actual pre- and post-construction cross-sections of project plotted at the same station as and on top of the design tolerances.

1.05 QUALITY ASSURANCE

- A. The Contractor shall hire a third-party independent surveyor licensed in the state of Mississippi to perform all pre-construction and as-built surveys and monthly verify the Contractor's Quality Control surveys, survey setup, and local control network. The surveyor shall show more than 10 years of hydrographic and topographic (static) survey experience.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 GENERAL

- A. The Contractor is responsible for all surveying required for layout and performance of the Work. All pre-construction and as-built surveys shall be performed by an independent third-party surveyor licensed in the state of Mississippi. Quality control surveys can be collected by the Contractor's crew using monumentation developed by the independent third-party surveyor. All construction-related drawings, submittals, and as-builts, will be prepared by the Contractor in CADD and PDF formats.
- B. The Contractor shall complete the layout of the Work and shall be responsible for all measurements.

- C. The Contractor shall perform surveys of the breakwater installations, scour protection, and settlement plates. It is the intent of the surveys to have vertical and horizontal accuracies equivalent to land surveying. Cross-section surveys shall be performed prior to and after placement of the breakwater stone.
- D. After installation of each settlement plate and before placement of stone, the Contractor shall perform a survey detailing the location, date of installation, and the top elevation of the riser pipe to the nearest 0.1 feet NAVD88.
- E. All survey submittals shall include the following:
 - 1. Surveyor's name and date survey was performed
 - 2. Purpose of the survey (e.g. pre-construction, quality control, post-construction)
 - 3. Unit of measure in U.S. Survey Feet
 - 4. Horizontal datum in Mississippi State Plane East Zone, NAD 83, U.S. Feet
 - 5. Vertical datum in Mean Lower Low Water (MLLW).
- F. CADD file submittals shall also include the following:
 - 1. Contours (and/or the actual surfaces if the surveyor(s) uses AutoCAD Civil 3D or can export to LandXML)
 - 2. Each survey shall be organized by surveyor and date performed
 - 3. If there is more than one survey in a CADD file, each survey shall be placed on its own layer and the layer shall be appropriately named and dated.
 - 4. If CSV files are submitted (formatted xyz), the first line of the text file shall identify the items listed herein.

3.02 PRE-CONSTRUCTION BATHYMETRIC SURVEY

- A. Prior to performing the pre-construction survey, the Contractor must field verify the location of all utilities throughout the entire project length and include the locations on the pre-construction survey submittal. The Contractor is strictly responsible for repair of any and all damages related to utilities and existing infrastructure as a result of this project construction activities.
- B. Prior to construction, the Contractor shall perform a pre-construction bathymetric survey of the project area for the Engineer's approval.
- C. The pre-construction bathymetric survey shall be collected using low frequency methods as prescribed by the U.S. Army Corps of Engineers Hydrographic Survey Manual EM 1110-2-1003 for soft sediments.
- D. The Contractor shall collect cross-sections on 50-foot centers along the breakwater and scour protection alignments. Each cross-section shall extend 100 feet outside the limits shown for each construction area. The survey can be a combination of low-frequency bathymetric and real-time kinematic data, providing shots at 5-foot intervals. Sufficient closure points between sections shall be obtained to develop a 5-foot by 5-foot grid. Unless otherwise noted, the bisecting lines shall not be more than 200 feet on center.

- E. During the preconstruction survey and at least 30 days prior to commencement of construction, the Contractor shall provide a vessel with a boat captain and surveyor with GPS positioning to the Engineer for a 4-hour work day to conduct a submerged aquatic vegetation (SAV) survey in the project area. The Engineer will provide two people on the vessel to direct the vessel operator for the SAV verification survey. Any SAV areas identified will be provided to the Contractor. The contractor shall avoid damaging the SAV.

3.03 QUALITY CONTROL SURVEYS

- A. The Contractor shall perform daily quality control checks and weekly surveys of the earthen and riprap berms. The survey shall include the previous week's construction to the extent practicable. For quality control purposes, the surveys shall be performed and completed no later than 3 calendar days following the end of the calendar week.
- B. Drawings shall be provided showing the surveyed surface elevations in cross section along with the design templates. Submittal shall include hard copy plots in grid format and electronic files. Electronic files should include PDF submittals as well as original (native) format. The Contractor shall submit xyz survey data in ASCII or another common format, if requested and as directed.

3.04 SETTLEMENT MONITORING SURVEYS

- A. After placement of the Phase 1 earthen and riprap berms to the design elevations, the Contractor shall survey and record the elevation of the top of the settlement plate to the nearest 0.1-foot NAVD88.
- B. After placement of the Phase 1 earthen and riprap berms, settlement plate and berm crest surveys shall be performed bi-weekly until notification to discontinue by the MDEQ or its designated representative. For each berm survey, the Contractor shall survey as close to the initial berm point as possible in order to track consolidation during construction.
- C. When directed by the Engineer, the Contractor shall survey the centerline alignment and collect points on fifty (50) foot centers and at the top elevations of the settlement plates. The Contractor shall also collect cross section surveys (as described in Section 3.01). The intent of these surveys is to determine if the primary consolidation in the subsurface soils has been achieved.
- D. After placement of the Phase 2 earthen and riprap berms, the Contractor shall also survey and record the final top elevations of the berms on fifty (50) foot centers. Surveys shall be to the nearest 0.1-foot NAVD88 along with the corresponding date.

3.05 AS-BUILT SURVEYS

- A. The Contractor shall survey the boundary of the earthen and riprap berm breakwater structures, and scour protection placement and mimic the pre-construction survey. It is intent of the As-Built survey to capture the final elevations and dimensions of the earthen and riprap berms.

- B. The As-Built drawings and data sets shall include the pre-construction survey, design templates and tolerances, all of the daily cross-section surveys, and the final As-Builts of the completed breakwater structures. The submittal shall be certified by an independent third-party surveyor licensed in the state of Mississippi and include electronic PDF, xyz files, and the CADD files in an MDEQ approved format. At a minimum, they will provide PDF format files showing an overlay of the pre- and post-construction survey with placement tolerances in section view on 100 ft centers and a color-coded plan view showing varying colors by 0.5-ft interval.

END OF SECTION 01 32 23

SECTION 01 32 33

PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section addresses the requirement to take and produce construction record photographs during the course of the Work. Digital photography is required. Film photography is not acceptable.
- B. Monthly aerials and video clips of construction are required.

1.02 RELATED DOCUMENTS (NOT APPLICABLE)

1.03 STILL PHOTOGRAPHY REQUIRED

- A. Provide digital aerial color photographs of the general construction area prior to starting construction, after completing the inner precast breakwater, and after completing the outer stone breakwater. Aerial photographs shall be at a scale of 1 inch = 600 feet with a pixel resolution of at least 6 inches. Aerial photography shall be within the boundaries defined by the following GPS coordinates and Figure 1 – Limits of Aerial Photography located at the end of this specification:
- B. Take aerial photographs on the monthly closing date on which each scheduled Payment Application is based.
- C. Take a minimum of five (5) daily photographs of construction activities as necessary to document daily construction progress. The intent is for digital photos to be kept as a project record.
- D. Digital photographs shall be submitted on suitable electronic media or uploaded to project site server. Organization and files of pictures must be approved by Engineer.
- E. Digital photographs shall have a resolution of 10 megapixels or greater.
- F. Submitted digital media and photos become the property of MDEQ.

1.04 AERIAL STILL & VIDEO PHOTOGRAPHY REQUIRED

- A. Aerial video of the construction site before construction begins is required. Video and photos may be taken by plane, drone, helicopter or any other aerial vehicle. If taken by drone or other unmanned aircraft, the view shall be taken at no higher than 400 feet above sea level (per FAA requirements) of the site.
- B. Aerial video of the construction site during construction is required, in accordance with Section 1.01. Videos should show all completed work and proposed work area for the next month. This view shall be taken at no higher than 400 feet above sea level (per FAA requirements) of the site, if obtained by an unmanned aircraft.
- C. Aerial video of the construction site on the day of the Final Inspection is required. This view shall be taken at no higher than 400 feet above sea level (per FAA requirements) above the constructed and proposed facilities, if taken by an unmanned aircraft.

- D. Video clips of key construction activities. Still photography frames may be collected from video clips to comply w/ Section 1.03, provided they are taken using high definition video.
- E. High elevation still photographs of key construction activities. If still photographs of key construction activities are taken by an unmanned aircraft, the aircraft may not go higher than 400 feet above sea level in accordance with FAA requirements.

1.05 COSTS OF PHOTOGRAPHY

- A. Contractor is responsible for the costs of specified photography and printing.
- B. Payment to a subcontractor or individual for drone captured images or video clips will only be provided if an FAA Section 333 Exemption is provided. Note: Under FAA regulations, commercial use of unmanned aircraft is only allowed if the user has an FAA Section 333 Exemption.
- C. Parties requiring additional photography or prints will pay for them directly.

1.06 DELIVERY OF PHOTOS

- A. Contractor will submit digital photos to the Engineer with monthly pay requests or within 15 days of photo date.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 TECHNIQUE

- A. Presentation of Still Photography. The information/data provided with each digital still photography image shall include:

Date of image;

Location of images by Station location as shown on the design drawings; and

Direction of image (N, S, E, W, NE, NW, SE, SW).

- B. Exposure and Focus. The photography shall be taken with the appropriate exposure and focus.
- C. Aerial Images and Aerial Videos

Still images may not be taken at elevations exceeding 400 feet above sea level in accordance with FAA regulations if taken by an unmanned aircraft such as a drone.

Aerial video survey shall use a focal length that captures no more than 30 feet outside the construction area. If an unmanned aircraft is utilized to capture video, the aircraft cannot fly higher than 400 feet above sea level in accordance with FAA regulations.

A digital imprint on the image that identifies the date and Station Location shall be edited onto the images.

Video imagery shall be at 1080p resolution with a shutter speed no slower than 30 frames/sec.

Video imagery shall use high quality lenses that produce clear and sharp images with a focal length that allows collected images to extend no more than 30 feet outside the construction zone. If a fixed lens is used, the height above sea level can be used to ensure that the cross section of the video does not exceed more than 30 feet outside the construction zone.

3.02 VIEWS REQUIRED

- A. Photographs shall be taken from locations to adequately illustrate the condition and methods of construction and the state of the Project.
- B. Aerial and video survey of the site prior to construction under low tide conditions is required.
- C. Monthly aerial and video survey of the site during construction is required. One flyover on or near the day of final payment request is required. Aerial survey should take place under low tide conditions when possible. Specific attention shall be given to facilities constructed since the previous pay period and the proposed construction area for the upcoming pay period.
- D. Aerial video clips of key construction activities are required (at least three clips of each key construction activity during the life of the project).
- E. Aerial still photography images of key construction activities are required (monthly images on or near the cutoff day of payment request).
- F. Still photography images of key construction activities from barge or inspection boat

3.03 PROJECT RECORD

- A. Contractor shall submit a binder of stored CD/DVD/USP drives containing digital photos, aerial video clips, aerial still photographs for project records collated in chronological order of project with date headings for groups of photos or videos.
- B. Contractor shall submit CD, DVD, or USB drive of all photos, grouped by date and location.
- C. Engineer will distribute, after review:
 - One copy of each view to MDEQ;
 - One copy of each view to Engineer's file; and
 - One copy of each view returned to Contractor for inclusion in Project Record Document.



FIGURE 1: NORTH BEARDSLEE LAKE MARSH RESTORATION PROJECT

LIMITS OF AERIAL PHOTOGRAPHY

END OF SECTION 01 32 33

SECTION 01 35 43

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section covers prevention of environmental pollution and damage as the result of construction operations under this Contract and for those measures set forth in other technical requirements of these Specifications. For the purpose of this Specification, environmental pollution and damage are 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 human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic, cultural, and/or historical purposes. The control of environmental pollution and damage requires consideration of air, water, and land, and includes management of visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants.
- B. Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. Contractor shall record on Daily Construction Report (per SECTION 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION) or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective actions taken.
- C. Contractor shall comply with all requirements under terms and conditions set forth in the following environmental permits and consultations authorized for this Project:
 - 1. Appendix A - Mississippi Department of Marine Resources – CZMA Compliance, File No. DMR-190224.
 - 2. Appendix B – U.S. Army Corps of Engineers File No. SAM-2019-00237-KMN.
 - 3. Appendix C - Mississippi Department of Environmental Quality, File No. WQC – 2019064.
 - 4. Appendix D – Permit Certification Letter
 - 5. Appendix E – USCG Marking Determination Package
- D. Copies of the environmental permits and consultations are available at <https://allenes.sharefile.com/d-s8609d7fd7cd84668a6b7dd4fef584cc0> and by reference are appended to these Contract Documents. The Contractor shall familiarize himself and his personnel and subcontractors with these and any other permits issued for this Project and comply with all requirements under the terms and conditions set forth therein. The Contractor shall be responsible for any fines resulting from violations of construction conditions set forth in the environmental permits. The Contractor shall include all costs for preparation and submittal of required reporting within each relative bid item. It is the Contractor's responsibility to obtain all other relevant federal, state and local permits at no cost to the Agency. The Contractor shall be responsible for any delays and costs resulting from failure to comply with these and all federal, state and local environmental protection laws and regulations.

1.02 RELATED SECTIONS:

- A. Section 01 32 00 – Construction Progress Documentation
- B. Section 01 32 23 – Surveys and Layout Data
- C. Section 01 33 00 – Submittal Procedures

D. Section 01 40 00 – Contractor Quality Control

1.03 SUBMITTALS

A. The following submittals shall be submitted by the Contractor in accordance with **SECTION 01 33 00 SUBMITTAL PROCEDURES**.

1. Environmental Protection Plan - Within **thirty (30) calendar days after the Notice of Award**, the Contractor shall submit in writing an Environmental Protection Plan (EPP). Acceptance of the Contractor's plan shall not relieve the Contractor of its responsibility for adequate and continuing control of pollutants and other environmental protection measures. Acceptance of the plan is conditional and predicated on satisfactory performance during construction. The Engineer reserves the right to require the Contractor to make changes to the EPP or operations if the Engineer determines that environmental protection requirements are not being met. No physical work at the site shall begin prior to acceptance of the Contractor's Plan by the Engineer. The EPP shall include but not be limited to the following:
 - a. A list of federal, state, and local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations and permits in addition to any required by this Contract.
 - b. Methods for protection of features and resources to be preserved within and adjacent to the work areas. The Contractor shall prepare a listing of methods to protect resources needing protection (i.e., upland and submerged vegetation, air and water quality, fish and wildlife, soil, historical, archeological, and cultural resources).
 - c. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedure set out in accordance with the environmental protection plan.
 - d. The location of the solid waste disposal facility used for disposal of solid wastes resulting from this Project.
 - e. Drawings showing locations of any material storage areas, structures, sanitary facilities, fleeting areas, and stockpiles of excess materials for both on shore and off shore facilities.
 - f. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.
 - g. Methods for protecting surface and groundwater during construction activities, including how impacts to water quality will be minimized, including methods for monitoring water quality, best management practices (BMPs), and methods for monitoring and controlling turbidity.
 - h. Spill Prevention Plan. The Contractor shall specify all potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, ground, water, wetlands, or drainage areas. The plan shall specify the Contractor's provisions to be taken to meet federal, state, and local laws and regulations regarding labeling, storage, removal, transport, and disposal of potentially hazardous substances.
 - i. Spill Contingency Plan for cleaning up any spilled or released hazardous, toxic or petroleum material associated with any facilities used on this Project.

- j. Work area plan showing the proposed activity in each portion of the area and identify the areas of limited use or non-use. The plan should include measures for marking the limits of use areas.
 - k. A statement identifying the Contractor's personnel who shall be responsible for implementation of the Environmental Protection Plan. The Contractor's personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.
 - l. Emergency contact information (office phone number, cell phone number, and e-mail address) for Contractor personnel, including the person responsible for environmental compliance for the Work, the on-site Construction Superintendent, the Project Manager, and other relevant parties.
 - m. Emergency contact information for the Agency and the Engineer (to be provided at the Preconstruction Meeting).
 - n. A Certification Letter must be signed acknowledging the Contractor has a copy of all environmental permits applicable to the project and understands the conditions in the permits. The Certification Letter (see Appendix D) shall be attached to the Environmental Protection Plan.
- B. Turbidity Monitoring Qualifications - Within thirty (30) calendar days after the Notice of Award, the Contractor shall submit qualifications for the person that is designated as the turbidity monitor for the Project. The person must be familiar with both turbidity monitoring and construction techniques and have the authority to alter and/or shut-down operations if turbidity levels exceed the compliance standards established.
- C. Turbidity Monitoring Reports - During construction, the Contractor shall submit daily monitoring reports containing the turbidity data gathered. Monitoring reports shall be submitted to the Engineer, Construction Quality Assurance Officer (CQAO), and other parties as deemed necessary via e-mail on a daily basis. All reports shall contain the following information:
- 1. Time of day samples were taken;
 - 2. Dates of sampling and analysis;
 - 3. Depth of water body;
 - 4. Depth of each sample;
 - 5. Antecedent water conditions, including wind direction and velocity;
 - 6. Tidal stage and direction of flow;
 - 7. Water temperature;
 - 8. Map indicating sampling locations and direction of flow;
 - 9. Statement describing the methods used in collection, handling, storage, and analysis of the samples;
 - 10. Statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter and accuracy of the data; and
 - 11. When samples cannot be collected, include an explanation in the report. If unable to collect sample due to severe weather conditions, include a copy of a current weather report from a reliable, independent source, such as an online weather service.

1.04 SUBCONTRACTORS

- A. Assurance of compliance with this section by subcontractors will be the responsibility of Contractor.

1.05 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL

- A. Contractor shall train his personnel in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment, and shall be thoroughly knowledgeable of federal, state, and local laws, regulations, and permits as listed in the EPP submitted by Contractor. Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with **SECTION 01 40 00 - CONTRACTOR QUALITY CONTROL**.

1.06 NONCOMPLIANCE

- A. The Engineer or CQC System Manager will notify the Contractor of any observed noncompliance with the aforementioned federal, state, or local laws or regulations, permits and other elements of the Contractor's EPP. The Contractor shall, after receipt of such notice, inform the Engineer of proposed corrective action and take such action as may be approved. Corrective actions shall be in compliance with the aforementioned federal, state, or local laws or regulations, permits and other elements of the Contractor's EPP. If the Contractor fails to comply promptly, the Engineer may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.
- B. Monitoring of permit and/or regulation compliance by the Engineer is for the sole benefit of the Agency and shall not relieve the Contractor of the responsibility of knowing and complying with all local, state, and federal laws and regulations concerning the protection of environmental resources, nor does it relieve the Contractor of the responsibility of ensuring that all environmental permit requirements governing the project work are met.
- C. The Contractor shall notify the Engineer immediately, in writing, of the occurrence of environmental incidents and also include in the Daily Progress Report in accordance with SECTION 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 PROTECTION OF ENVIRONMENTAL RESOURCES

- A. General - For Contract work, the Contractor shall comply with all applicable federal, state, and local laws and regulations. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this Contract shall be protected during the entire period of this Contract. Contractor shall confine his activities to areas defined by the Drawings and Specifications. Environmental protection shall be as stated in the following paragraphs. Failure to meet the requirements of these Specifications for environmental protection may result in Work stoppages or termination for default. No part of the time lost due to any such Work stoppages shall be made the subject of claims for extensions of time or for excess costs or damages by Contractor. If Contractor fails or refuses to promptly repair any damage caused by violation of provisions of the Contract Documents, the Agency may have the necessary Work performed and charge the cost thereof to Contractor.

3.02 PRESERVATION AND RECOVERY OF HISTORIC, ARCHEOLOGICAL, AND CULTURAL RESOURCES

- A. Inadvertent Discoveries - If, during construction activities, Contractor observes items that may have historic or archeological value, such observations shall be reported immediately to Engineer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.
- B. Claims for Downtime due to Inadvertent Discoveries - Upon discovery and subsequent reporting of a possible inadvertent discovery of cultural resources, the Contractor shall seek to continue work well away from, or otherwise protectively avoiding, the area of interest, or in some other manner that strives to continue productive activities in keeping with the Contract. Should an inadvertent discovery be of the nature that substantial impact(s) to the work schedule are evident; such delays shall be coordinated with the Engineer.

3.03 PROTECTION OF WETLANDS

- A. The Contractor shall protect all wetland adjacent to the work area from his operations. There shall be no storage of tools or materials within wetlands, along the shoreline in the littoral zone, or elsewhere within waters of the state except as specified in the project Specifications and/or Drawings.

3.04 PROTECTION OF LAND RESOURCES

- A. Before beginning any construction, Contractor shall identify all land resources to be preserved within Contractor's work area. Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and landforms outside of the clearing limits specified in the Drawings and Specifications without special permission from Engineer. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following paragraphs.
- B. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be visible. The Contractor shall convey to his personnel the purpose of marking and/or protection of all necessary objects.
- C. Solid wastes (excluding clearing debris) shall be placed in containers that are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination. The Contractor shall transport all solid waste off the properties within the project limits and dispose of it in compliance with federal, state, and local requirements for solid waste disposal. Discarded materials other than those that can be handled in the solid waste category will be handled as directed by the Engineer.
- D. Fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners right below the bib. Edges of the pans shall be 8-inch minimum in depth to ascertain that no contamination of the ground or water takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Contractor shall select and implement controls and procedures to minimize leaking or spilling of fuels during fueling of vehicles or equipment. Should any spilling of fuel occur the Contractor shall immediately recover the contaminated ground and/or water and dispose of it offsite in an approved area.
- E. Chemical waste shall be stored in corrosion resistant containers, removed from the work area and disposed of in accordance with Federal, state, and local regulations.

- F. Discarded materials other than those that can be included in the solid waste category shall be handled as directed.

3.05 PROTECTION OF WATER RESOURCES

- A. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and groundwaters. The Contractor shall conduct his operations in a manner to minimize erosion and turbidity and shall conform to all water quality standards as required by the permits and all other relevant Federal, State and local regulatory criteria. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities that are included in this Contract. In the event of unforeseen conditions, the Engineer may require the use of control features or methods other than those indicated or proposed by the Contractor.
- B. No creosote material shall be used in construction.
- C. No construction debris, refuse, or unauthorized fill material shall be allowed to enter coastal wetlands or waters.
- D. Turbidity Control
 - 1. Turbidity shall be monitored and conducted in accordance with permit requirements, techniques described below and in the approved EPP:
 - a. Turbidity Threshold Value - Turbidity shall not exceed a value of 50 nephelometric turbidity units (NTUs) above background outside of the limits of a 750 foot mixing zone. If a turbidity reading is more than 50 NTUs above the threshold reading, this will be a trigger to evaluate construction activities. Background reading shall mean a turbidity measurement in an area unimpacted by these construction activities.
 - b. If a turbidity measurement exceeds the standard established in paragraph a, the turbidity will be measured at the same location after 4 hours. If the turbidity measurement is confirmed, the Contractor shall implement BMPs as described in the approved EPP.
 - c. The Contractor shall perform turbidity monitoring on a frequency established in the approved EPP, but not less than daily.
 - d. Turbidity monitoring will resume on the approved schedule after BMPs are implemented. If the turbidity standard is exceeded after BMPs are implemented, the Contractor shall cease operations associated with the excessive turbidity or implement additional BMPs to reduce resuspension of sediment.
 - e. Any material moved by the dredge, pipeline, or any other such equipment shall be moved in such a way that: a) material will not be placed outside of the berm placement site boundaries as specified by the Contract; and b) safeguards against excess turbidity and suspended solids entering any adjacent water body. Work shall be performed in such a way as not to impact local wetland areas. In accordance with the 401 Water Quality Certification (see Appendix C), Best Management Plans (BMPs) shall be used at all times during operations to minimize turbidity at both the dredge and placement site. The placement site shall be constructed and maintained in a manner that minimizes the discharge of turbid waters into waters of Mississippi. Best management practices should include, but not be limited to, the use of staked hay bales, staked filter cloth, sodding, seeding and mulching; staged construction, and the installation of turbidity screens around the immediate Project site to protect adjacent environmental resources including seagrasses and water quality. All fill material and excavation areas shall have side slopes of at least 3:1 (horizontal: vertical) and shall be stabilized and maintained. No sewage, oil, refuse or other pollutants shall be discharged into the watercourse.

2. Delays in work due to the fault or negligence of the Contractor or the Contractor's failure to comply with the required turbidity requirements shall not be compensable.

E. Oil and Fuel Spill Prevention

1. Contractor will prevent oil or other hazardous substances from entering the ground, drainage, or local bodies of water. Contractor will provide containment, diversionary structures, or equipment to prevent discharged oil from reaching a watercourse. Contractor will take immediate action to contain and clean up any spill of oily substances, petroleum products, and hazardous substances. Contractor will immediately report such spills to the Engineer. Contractor will provide one or more of the following preventive systems at each oil storage site. The provision of such preventive systems shall be approved by the Engineer prior to tank installation and use.
 - a. Dikes, berms, retaining walls, culverts, curbs, gutters, or other similar structures shall be capable of containing the contents of the largest single tank.
 - b. Absorbent materials shall be capable of absorbing the contents of the largest single tank.
2. Oil or Fuel Storage Tank Installation: All storage tank installation shall be constructed so that a secondary means of containment is provided for the entire contents of the tanks installed. Dikes and other structures shall be positioned or located so as to provide a secondary containment identical to that required for non-mobile storage tanks. Storage tanks shall be located where they will not be subject to flooding or washout. When it is determined that the installation of containment structures or equipment to prevent discharged oil from reaching a watercourse is not practicable, a clear demonstration of such impracticability shall be submitted to the Engineer for approval prior to installation or use of the storage tank. The following shall also be provided to the Engineer for approval prior to installation use of the storage tank:
 - a. An oil spill contingency plan, either contained within or separate from the EPP.
 - b. A written certification of commitment of manpower, equipment, and materials required to expeditiously control and remove the discharge oil.
3. Liabilities: Contractor shall be liable for the damage caused by oil or fuel spills when it can be shown that the oil or fuel was discharged as a result of negligence or willful misconduct. The penalty for failure to report the discharge of oil or fuel shall be in accordance with state and federal laws.

3.06 PROTECTION OF FISH AND WILDLIFE RESOURCES

- A. Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish, shellfish beds, migratory birds and nests and wildlife. Species that require specific attention along with measures for their protection will be listed in Contractor's EPP prior to the beginning of construction operation.
- B. In the event that a threatened or endangered species is harmed because of construction activities, the Contractor shall cease all work and notify the Engineer. The Engineer will provide emergency contact information at the Pre-Construction Meeting.
- C. Contractor shall implement the requirements set forth in the permits as described in Appendices A through D. Measures identified in the permits must be included in the Contractor's EPP prior to the beginning of construction operations.

3.07 PROTECTION OF AIR RESOURCES

- A. The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Mississippi and all Federal emission and performance laws and standards.
- B. Dust Control: Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at any staging areas, haul roads, and other areas disturbed by operations. Strictly adhere to applicable environmental regulations for dust prevention.
- C. Contractor will minimize air pollution from the construction activities.
 - 1. Burning of waste materials, rubbish, or other debris will not be permitted on or adjacent to the Site.
 - 2. Tanks and containers of fuels and related products shall be controlled to minimize the emission of volatile organic compounds.
 - 3. Equipment should not be allowed to idle longer than one (1) hour. Equipment not in use after this time frame shall be turned off.

3.08 PROTECTION FROM SOUND INTRUSIONS

- A. The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise and to comply with all federal, state, and local noise ordinances. The use of horns, bells or the use of whistle signals shall be held to a minimum necessary in order to ensure as safe and as quiet an operation as possible.

3.09 CONSTRUCTION CLEANUP

- A. The Contractor shall clean up daily any area(s) used for construction to the satisfaction of the Engineer and Agency.

3.10 MAINTENANCE OF POLLUTION CONTROL FACILITIES

- A. The Contractor shall, at his expense, provide routine maintenance of permanent and temporary erosion control features until the Project is completed and accepted. If such erosion control features must be reconstructed due to the Contractor's negligence, carelessness, or in the case of temporary erosion control features, failure by the Contractor to install permanent erosion control features as scheduled, such replacement shall be on the Contractor's expense.
- B. If the Contractor through any construction activity degrades, destroys, or impacts the ground cover on any adjoining property including rights-of-way, effected area shall be fully repaired and re-vegetated at the Contractor's expense.

END OF SECTION 01 35 43

SECTION 01 40 00

CONTRACTOR QUALITY CONTROL

PART 1 - GENERAL

1.01 SUMMARY

- A. This section covers the establishment and operation of the Contractor's Quality Control (CQC) system. The Contractor shall coordinate activities and manage resources to construct the project conforming to the Contract, on time and within budget.
- B. Separate payment will not be made for providing and maintaining an effective CQC program, and all costs associated therewith shall be included in the applicable prices contained in the Bid Form.

1.02 Related Sections:

- A. Attachment F – Standard Contract Terms and Conditions
- B. Section 01 20 00 – Measurement and Payment Procedures
- C. Section 01 31 00 – Project Management and Coordination
- D. Section 01 32 00 – Construction Progress Documentation
- E. Section 01 33 00 – Submittal Procedures
- F. Section 01 77 00 – Closeout Procedures

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM)
 - 1. ASTM D-370 - Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - 2. ASTM E-329 - Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.

1.04 SUBMITTALS

- A. The following submittals shall be submitted by the Contractor in accordance with **SECTION 01 33 00 – SUBMITTAL PROCEDURES**.
 - 1. Contractor Quality Control Plan - Within twenty (20) calendar days of Notice of Award, the Contractor shall submit the draft Contractor Quality Control (CQC) Plan for review and acceptance by the Engineer and MDEQ. The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. MDEQ will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started. The CQC shall be integrated with the Contractor's Work Plan and address each step of the Work Plan.

2. Registered Surveyor Qualifications -The Contractor shall submit the name and credentials of the third-party Mississippi Registered Surveyor consultant and personnel who will be performing the surveying portions of the contract work for Engineer approval. The company and personnel shall show experience in this type of work. The submittal must provide the name and type of equipment used for the Project. All pre-construction surveys and as-built surveys shall be overseen by a Mississippi Registered Professional Surveyor.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in accordance with these specifications. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Engineer and/or MDEQ for non-compliance with quality requirements specified in the Contract. The site project superintendent shall mean the individual with the responsibility for the overall management of the project, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to MDEQ, and shall be responsible for all construction and construction related activities at the site.

3.02 CONTRACTOR QUALITY CONTROL PLAN

- A. Content of the CQC Plan - The CQC Plan shall include, as a minimum, the following to cover all construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers, and purchasing agents:
 1. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three-phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall perform Contractor's duties in tandem with those who report to the Project superintendent and with direct reporting responsibility to an officer of the prime Contractor and/or an individual not directly responsible for production. Additionally, a qualified Mississippi Registered Surveyor is required for all pre- and post-construction, settlement, as-built, and other surveys.
 2. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
 3. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the Contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to MDEQ.
 4. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with **SECTION 01 33 00 - SUBMITTAL PROCEDURES**.

5. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. Laboratory facilities approved by MDEQ shall be used.
 6. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
 7. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
 8. Daily and weekly reporting procedures, including proposed reporting formats for the report and monitoring surveys.
 9. A list of the definable features of work associated with this project. A definable feature of work is a task that is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there is frequently more than one definable feature under a particular section. This list of definable features of work will be agreed upon during the Coordination Meeting.
- B. Acceptance of CQC Plan
1. Acceptance of the CQC plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. Engineer reserves the right to require the Contractor to make changes to Contractor's CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.
- C. Failure to Submit Acceptable CQC Plan
1. If the Contractor fails to submit an acceptable draft CQC plan within the time prescribed, construction SHALL NOT start. If an acceptable final plan is not submitted within a reasonable time, as determined by the Engineer, the Engineer may order the Contractor to stop work until such time as an acceptable plan has been submitted. Any such stop work order shall not be considered a suspension of work for an unreasonable period of time under Section 37 of the Standard Contract Terms and Conditions of MDEQ (Attachment F) and the Contractor shall not be entitled to pay adjustments as a result of the stop work order. Failure to comply with the above requirements within the time prescribed will be considered a condition endangering the performance of the Contract and may be considered grounds for termination of the Contract in accordance with the Standard Contract Terms and Conditions of MDEQ (Attachment F).
- D. Notification of Changes
1. After acceptance of the CQC Plan, the Contractor shall notify MDEQ in writing of any proposed change. Proposed changes are subject to acceptance by MDEQ.

3.03 COORDINATION MEETING

- A. After award of the Contract, but before physical work starts and before the acceptance by MDEQ of the CQC Plan, the Contractor shall meet with MDEQ and discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with MDEQ's Quality Assurance. Minutes of the meeting shall be prepared by MDEQ and signed by both the Contractor and MDEQ. The minutes shall become a part of the Contract file. There may also be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.04 QUALITY CONTROL ORGANIZATION

A. General

- 1. The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure safety and Contract compliance. The Health and Safety Manager shall receive direction and authority from the CQC System Manager and shall serve as a member of the CQC staff. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The CQC staff shall maintain a presence at the site at all times during progress of the Work and have complete authority and responsibility to take any action necessary to ensure Contract compliance. The CQC staff shall be subject to acceptance by MDEQ. The Contractor shall provide adequate office space, filing systems, and other resources as necessary to maintain an effective and fully functional CQC organization.
- 2. Complete records of all letters, material submittals, shop drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to MDEQ.

B. CQC System Manager

- 1. The Contractor shall identify as CQC System Manager an individual within the on-site work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall have a minimum of eight (8) years of experience in related work and shall have completed the course entitled "Construction Quality Management for Contractors" or equivalent. The course is periodically offered at the Mobile District United States Army Corps of Engineers.
- 2. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager, having a minimum of three (3) years of experience, shall be identified in the plan to serve in the event of the primary CQC System Manager absence.

C. CQC Personnel

1. A staff shall be maintained under the direction of the CQC System Manager to perform all CQC activities. The staff must be of sufficient size to ensure adequate CQC coverage of all work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned CQC responsibilities and must be allowed sufficient time to carry out these responsibilities. The CQC plan will clearly state the duties and responsibilities of each staff member.

D. Organizational Changes

1. The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to MDEQ for acceptance.

E. Third-Party Registered Surveyor Consultant

1. The Contractor shall obtain a qualified independent Mississippi Registered Surveyor to perform pre-construction surveys and as-built surveys required to carry out the Project Work. The Registered Surveyor should have at least 10 years of relevant bathymetric survey experience. Relevant experience shall include hydrographic and topographic surveying of soft sediments and rock structures in accordance with the U.S. Army Corps of Engineer standards.
2. The Registered Surveyor shall certify all field notes, computations, and all other records relating to surveys of the Work.
3. The Registered Surveyor must have appropriate equipment (i.e., heave, pitch, and roll compensator) to be able to work within inclement weather conditions.

3.05 CONTROL

- A. Contractor Quality Control is the means by which the Contractor ensures that the construction, including that of subcontractors and suppliers, complies with the requirements of the Contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of the construction work as follows:

1. Preparatory Phase: This phase shall be performed prior to beginning work on each definable feature of Work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:
 - a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the Work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by MDEQ personnel until final acceptance of the Work.
 - b. A review of the Contract Drawings.
 - c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
 - d. Review of provisions that have been made to provide required control inspection and testing.
 - e. Examination of the Work area to assure that all required preliminary Work has been completed and is in compliance with the Contract.

- f. A physical examination of required materials, equipment, and sample Work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
 - g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
 - h. Discussion of procedures for controlling quality of the Work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
 - i. A check to ensure that the portion of the plan for the Work to be performed has been accepted by MDEQ.
 - j. Discussion of the initial control phase.
 - k. MDEQ shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet Contract Specifications.
2. Initial Phase: This phase shall be accomplished at the beginning of a definable feature of Work. The following shall be accomplished:
- a. Check work to ensure that it is in full compliance with Contract requirements. Review minutes of the preparatory meeting.
 - b. Verify that facilities adequacy of controls to ensure full Contract compliance. Verify required control inspection and testing equipment are available and comply with testing standards.
 - c. Check test instruments calibration data against certified standards.
 - d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, are prepared in accordance with Contract requirements.
 - e. Results of tests and monitoring instruments, both passing and failing, shall be recorded on the CQC report for the date taken. The specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by Engineer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of test performed by an offsite or commercial test facility shall be provided directly to the Engineer. Failures to submit timely test reports as stated, or maintain adequate monitoring testing, may result in nonpayment for related Work performed and disapproval of the test facility for this Contract.
 - f. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.
 - g. Resolve all differences.
 - h. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

- i. Notify MDEQ at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
 - j. Repeat the initial phase for each new crew to work on-site, or any time acceptable specified quality standards are not being met.
3. Follow-up Phase: Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with Contract requirements, until completion of the particular feature of Work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted, and all deficiencies corrected prior to the start of additional features of Work that may be affected by the deficient Work. The Contractor shall not build upon nor conceal non-conforming work.
- B. Additional Preparatory and Initial Phases: Additional preparatory and initial phases shall be conducted on the same definable features of Work if: the quality of on-going Work is unacceptable; if there are changes in the applicable CQC staff, on-site production supervision or work crew; if Work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.06 COMPLETION INSPECTION

- A. Punch-Out Inspection: Near the end of the Work, or any increment of the Work, the MDEQ or CQC Manager shall conduct an inspection of the Work. A punch list of items that do not conform to the approved Drawings, Specifications, and work plan shall be prepared and included in the CQC documentation, as required by paragraph 3.07 DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify MDEQ that the Work is ready for "Pre-Final" inspection.
- B. Pre-Final Inspection: The Engineer may perform a Pre-Final Inspection to verify that the Work is complete. The Contractor's CQC Manager shall ensure that all items identified as needing completion or corrections have been addressed before requesting a Final Inspection. Any items noted on the Pre-Final Inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required shall be accomplished within the time slated for completion of the entire work or any particular increment thereof if the Project is divided into increments by separate completion dates.
- C. Final Acceptance Inspection: The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and Engineer's representative shall be in attendance at this inspection. Additional MDEQ personnel and other agencies may also be in attendance. The Final Acceptance Inspection will be formally scheduled by the Engineer based upon results of the Pre-Final inspection. Notice shall be given to the Engineer at least 14 days prior to the Final Acceptance Inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the Contract, will be complete and acceptable by the date scheduled for the Final Acceptance Inspection. Failure of Contractor to have all Work acceptably complete for this inspection will be cause for the MDEQ to bill the Contractor for the MDEQ's additional inspection cost in accordance with **SECTION 01 77 00 CLOSEOUT PROCEDURES**.

3.07 DOCUMENTATION

- A. The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be documented as described in **SECTION 01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION**.

3.08 NOTIFICATION OF NONCOMPLIANCE

- A. MDEQ will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the Work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, MDEQ may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

END OF SECTION 01 40 00

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 REQUIREMENTS

- A. Comply with requirements stated in the Agreement (Section 00 52 15), the Standard Contract Terms and Conditions (Attachment F of Invitation for Bids) and all Specifications of these Contract Documents.

1.02 RELATED SECTIONS

- A. Section 01 29 00 – Payment Procedures
- B. Section 01 33 00 – Submittal Procedures
- C. Section 01 32 23 – Surveys and Layout Data
- D. Section 01 32 33 – Photographic Documentation
- E. Section 01 40 00 – Contractor Quality Control

1.03 CLOSEOUT PROCEDURES

- A. Contractor will comply with requirements stated in these specifications for administrative procedures in closing out the Work.
- B. Contractor will submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- C. Contractor will provide submittals to Engineer/MDEQ that are required by governing or other authorities.
- D. Contractor will submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.04 FINAL INSPECTION AND REMOVAL OF ALL CONSTRUCTION EQUIPMENT AND ANCILLARY FACILITIES

- A. When Contractor considers the Work is complete, Contractor shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work is ready for a final inspection and completed punch list in accordance with Paragraph 3.06 of Section 01 40 00 – CONTRACTOR QUALITY CONTROL.
- B. When the Engineer finds that the Work is acceptable under the Contract Documents, Engineer shall request the Contractor to make closeout submittals in accordance with 1.05 below.

- C. In the event that the Final Inspection concludes that the construction progress does not meet completion status, the Contractor will be required to reimburse MDEQ for all costs associated with the Final Inspection inclusive of payroll expenses of any Engineer or regulatory agency staff involved, equipment rentals and any travel related expenses. Contractor may pay for these additional expenses directly to MDEQ or have the expenses deducted from the final payment.

1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS

Contractor will provide as closeout submittals the following:

- A. Evidence of Payment to subcontractors and suppliers and and Release of Liens.
- B. Final inspection report by the Engineer recommending the MDEQ's final approval.
- C. At Contract close-out, deliver one (1) hard copy and one (1) electronic set of Record Documents to MDEQ. Accompany submittal with transmittal letter containing:
 - 1. Date;
 - 2. Project title and number;
 - 3. Contractor's name and address;
 - 4. Title and number of each Record Document; and
 - 5. Signature of Contractor or his authorized representative.

1.06 PROJECT RECORD DOCUMENTS

- A. Final Payment will not be made to Contractor until Contract Record Documents in accordance with Section 1.05 above are submitted and approved.

PART 2 - PRODUCTS

- A. Not Used

PART 3 - EXECUTION

- A. Not Used

END OF SECTION 01 77 00

**SECTION 01 78 00
GENERAL REQUIREMENTS**

1.00 GENERAL

- A. The following Special Conditions consist of special requirements which shall apply to this project and to the CONTRACTOR executing the work.
- B. CONSTRUCTION SAFETY IS A PROJECT REQUIREMENT. The CONTRACTOR shall be responsible for providing Safety equipment and or methods necessary for the safe prosecution of the work by his personnel and the personnel of any sub-contractors, as well as providing safe access and site conditions to all elements of the project for the OWNER, ENGINEER, and their representatives. Such safety requirements shall meet guidelines as contained in OSHA and U.S. Department of Health and Human Services (National Institute for Occupational Safety and Health) (NIOSH) publication sections relative to the work contemplated herein.

1.01 PUBLIC SAFETY AND CONVENIENCE

- A. The CONTRACTOR shall at all times so conduct his work as to ensure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to ensure the protection of persons and property in a manner satisfactory to the OWNER and ENGINEER.
- B. All work on existing highways, roads or streets, shall be in a manner to assure the least practicable interference with the public use of the facility. The CONTRACTOR shall use reasonable care and precaution to avoid accidents, damage, unnecessary delay or interference with traffic and provide competent flaggers when necessary to ensure maximum public safety.

1.02 EXISTING WATER, SEWER, ELECTRIC GAS AND UNDERGROUND TELEPHONE FACILITIES

- A. Existing water, sewer, gas, electricity, television cable, and buried telephone cable facilities shown on the drawings are approximate locations. The CONTRACTOR is responsible for damage to existing utilities lines whether shown on the plans or not. The CONTRACTOR is required to coordinate his work with the representative of the respective utility companies and protect all other adjacent structures, utilities, and work against damage or interruption of services. Damages which may result from failure of the CONTRACTOR to observe such precautions is the responsibility of the CONTRACTOR.
- B. The OWNER shall be held harmless of the cost of repairing damage to public utilities

1.03 UTILITIES

- A. Water, electricity, gas or other utilities required on the site of the work by the CONTRACTOR must be arranged for by the contractor and furnished at the contractor's expense.
- B. Required temporary utility installations are subject to the approval of the ENGINEER and are to be maintained and removed by the CONTRACTOR at his expense prior to completion of the construction work.

1.04 TEMPORARY STORAGE

- A. If materials are stored on the site of the work, each CONTRACTOR shall provide and maintain on the premises, where directed, water-tight storage sheds for the storage of materials that would be subject to damage by the weather.
- B. The CONTRACTOR shall be responsible for security of material storage sites and proper coordination with regulatory agencies and local, state and federal codes.

1.05 CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

- A. The CONTRACTOR will execute and provide to the ENGINEER a compliance statement if requested and shall certify that all work will be completed in accordance with Mississippi Department of Marine Resources Permits.
- B. Such compliance form shall be provided by the ENGINEER. Contractor shall adhere to all requirements as detailed in the contract documents regarding storm water control in accordance to Mississippi Department of Environmental Quality standards.

1.06 LEAD BASED PAINT

- A. Use of lead-based paint on the project is prohibited.

1.07 TEMPORARY TOILETS

- A. Provide and maintain temporary toilets as necessary for use of workmen. Locate toilets in locations acceptable to the OWNER.
- B. Toilets shall meet requirements of the State Health Department and any local codes.

1.08 TEMPORARY JOB OFFICE FOR ENGINEER

- A. If Contractor has office space onsite, then office space to accommodate 1 representative from MDEQ or Engineer shall be provided. Office space provided for MDEQ or Engineer, if any, shall be cleaned and furnished in the same manner as the Contractor office space.

1.09 QUANTITIES

- A. Contractor agrees and understands that quantities included in the Contract Documents and Bid Proposal shall include all labor, material, shipping and equipment required to perform the work. Any increase or decrease of the quantities shall not constitute a cost adjustment to the owner.

Appendices A - E

Appendices A-E are made available in the following sharefile link:

<https://allenes.sharefile.com/d-sc75fa0aee76f49e68ae69e28355a66dc>

SECTION 02 00 00
MOBILIZATION – DEMOBILIZATION

PART 1 - GENERAL

1-01 DESCRIPTION

- A. Mobilization-Demobilization shall consist of all moving in, including preparatory work and operations and moving out, including all dismantling and clean-up work and operations performed by the Contractor.
- B. Mobilization shall include the movement of all labor, equipment, supplies and incidentals to the project site; establishment of facilities necessary for work on the project; and other work and operations which must be performed or costs not directly attributable to other pay items, exclusive of bidding costs, which must be incurred by the Contractor before beginning and during the early stages of production work on the project site.
- C. Demobilization shall include the movement of all labor, equipment, supplies and incidentals from the project site; dismantling and removal of temporary facilities; clean-up of the project site and all work areas; and other work and operations which must be performed or costs not directly attributable to other pay items which must be incurred by the Contractor after completion of certain items of work and all other work on the Contract has been completed.

PART 2 - COMPENSATION

- A. Payment for this item will be made as a lump sum (LS) for costs associated with or incidental to mobilization, demobilization, and establishment of initial project management and coordination. The Contractor shall provide a breakdown the cost for Mobilization and Demobilization for Engineers approval prior to the first Application for Payment. Payment for Mobilization and Demobilization shall be in accordance with the following rules and schedule:
 - 1) No more than sixty percent (60%) of the entire lump sum amount will be payable to the Contractor upon completion of the mobilization, subject to the following:
 - a) No more than 25% of the entire lump sum amount can be claimed for reimbursement in the first Application for Payment.
 - b) No more than 35% of the entire lump sum amount can be claimed for reimbursement in the second Application for Payment.
 - 2) The remaining forty percent (40%) of the entire lump sum will be payable upon the completion of demobilization.
 - 3) Contractor's failure to provide justification for the cost of Mobilization and Demobilization to the satisfaction of the Agency will result in payment, as determined by the Agency. The Agency's determination of the actual costs of Mobilization and Demobilization is not subject to appeal.
 - a) Actual mobilization costs at completion of mobilization;
 - b) Actual demobilization costs at completion of demobilization; and
 - c) The remainder of this item in the final payment under this contract.

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**SECTION 31 05 21
GEOTEXTILE AND GEOGRID**

Part 1 - GENERAL

1-01 DESCRIPTION

- A. This work consists of furnishing and installing geotextile fabric and/or composite geogrid for stabilization of embankments and subgrades as shown on the plans and in conformance with these specifications.
- B. Dimensions of geosynthetic placement shall be as indicated on the drawings.

1-02 RELATED SECTIONS

- A. Section 01 20 00 - Measurement and Payment Procedures
- B. Section 01 32 00 - Construction Progress Documentation
- C. Section 01 32 23 - Surveys and Layout Data
- D. Section 01 33 00 - Submittal Procedures
- E. Section 01 35 43 - Environmental Protection

1-03 REFERENCES

- A. American Association of State Highway and Transportation Officials (AASHTO)
 - 1. Standard Specification for Highway Bridges (2002).
- B. American Society for Testing and Materials (ASTM):
 - 1. D 6637 Determining Tensile Properties of Geogrids by Single or Multi-Rib Tensile Method
 - 2. D 1388 Flexural Rigidity (Option A).
 - 3. D 4759 Standard Practice for Determining the Specification Conformance of Geosynthetics.
 - 4. D7737 Individual Geogrid Junction Strength
 - 5. D 5818 Practice for Obtaining Samples of Geosynthetics from a Test Section for Assessment of Installation Damage.
- C. U.S. Army Corps of Engineers
 - 1. U.S. Army Corps of Engineers of Torsional Rigidity.

1-04 DEFINITIONS

- A. Minimum Average Roll Value – Value based on testing and determined in accordance with ASTM D 4759.
- B. Junction Efficiency - Load transfer capability determined in accordance with ASTM D6637 and ASTM D7737 and expressed as a percentage of ultimate tensile strength.
- C. Flexural Stiffness (also known as Flexural Rigidity) – Determined in accordance with ASTM D7748.
- D. Radial Stiffness – Determined from tensile stiffness measured in any in-plan axis from testing in accordance with ASTM D6637.

- E. Resistance to Chemical Degradation - Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
- F. Resistance to Ultra-Violet Light and Weathering – Determined in accordance with ASTM D4355-05

1-05 SUBMITTALS

- A. Submit product samples of:
 - 1. Grid Composite.
 - 2. Braid.
 - 3. Mechanical connection elements.
- B. Shop Drawings – Submit details of the typical sections and connections.
- C. Submit grid composite product data sheet and certification from the manufacturer that the product supplied meets the requirements of sub-part 2.02 of this Section.
- D. Submit manufacturer’s general recommendations and instructions for fabrication, storing, cutting, installation and repair.

1-06 QUALITY ASSURANCE

- A. Prior to the installation of the grid composite, the Contractor shall arrange a meeting with the system supplier, the Engineer, and where applicable, the system installer. The Engineer shall be notified at least 3 days in advance of the date and time of the meeting.

1-07 DELIVERY, STORAGE, AND HANDLING

- A. Prevent excessive mud, wet concrete, epoxy, or other deleterious materials from coming in contact with and affixing to geogrid composite materials.
- B. Store at temperatures above –20 degrees F (-29 degrees C).
- C. Rolled materials may be laid flat or stood on end.

Part 2 - MATERIALS

2-01 COMPOSITE GEOGRID SYSTEM BENEATH BERMS

- A. Composite geogrid system shall consist of an integral formed, stress resistant polypropylene geogrid structure, bonded or sewn to a non-woven polypropylene geotextile. Geogrid shall be Tensar TX 130S or approved equal.
 - 1. Alternate grid composite materials shall be submitted and approved by the Engineer.

B. The composite geogrid system shall possess the following characteristics:

1. Positive mechanical interlock with bedding stone or earthen materials; contiguous sections when overlapped and embedded in bedding stone or earthen materials; and mechanical connectors such as bodkins, pins, hooks or HDPE/PP braids.
2. Sufficient cross-sectional profile to present a substantial interface to particulate construction fill materials such as sand or silt to resist movement relative to such materials.
3. Sufficient flexibility to maintain intimate contact of the geotextile with the underlying material when earthen materials, bedding stone, riprap or armor stone is placed upon it.
4. Sufficient initial modulus to cause applied loads to be transferred to the geogrid at low strain levels and without material deformation of the reinforced structure.
5. Complete continuity of all properties throughout its structure and shall be suitable for use with bedding stone, riprap and earthen materials in coastal and waterway environments to improve the long-term stability of the coastal structure such as rubble mound breakwaters, jetties and groins.
6. Integrally formed through punching and drawing of extruded sheets of polypropylene, oriented in three approximately equilateral directions.
7. Triangular apertures and ribs with depth-to-width ratios greater than 1.0.
8. Additionally, the grid composite type shall have the following characteristics:

Properties (Geogrid)	Longitudinal	Diagonal	General
Rib Pitch, mm (in)	33 (1.30)	33 (1.30)	
Rib shape			rectangular
Aperture shape			triangular
Junction Efficiency, %			93
Overall Flexural Rigidity, gm-cm			500,000
Radial stiffness at low strain ^(E) , kN/m @ 0.5% strain (lb/ft @ 0.5% strain)			200 (13,708)
Resistance to chemical degradation			100%
Resistance to ultra-violet light and weathering			70%

Properties (Geotextile)	UNITS	Values
Weight – Typical	oz/sy(g/sm)	7.0 (237)
Tensile Strength	Lbs (N)	180 (800)
Elongation	%	50
Mullen Burst	psi(kPa)	2,275
Puncture Strength	lbs (N)	105 (467)
Trapezoidal Tear	lbs (N)	75 (333)
Water Flow Rate	g/min/sf (l/min/sm)	105 (4,278)
Apparent Opening Size (AOS)	US Sieve	70
Permittivity	Sec-1	1.40
Ultraviolet Stability (Retained Strength @ 500 hours)	%	70

- C. The grid composite shall be delivered to the project site in roll form with each roll individually. On special request, the grid composite may also be custom cut to specific length or widths to suit site specific engineering design.
- D. The geotextile fabric portion of the composite geogrid must be non-woven. The fabric shall consist only of long chain polymeric yarns of filaments such as polypropylene, polyethylene, polyester, polyamide or polyvinylidene-chloride and shall be formed into a stable network such that the yarns or filaments retain their relative position. The fabric shall be mildew resistant and inert to biological degradation and naturally encountered chemicals, alkalies and acids. Fabric which is not protected from sunlight after installation shall contain stabilizers and/or inhibitors to make it resistant to deterioration from direct sunlight, ultraviolet rays and heat.
1. The edges of the fabric shall be salvaged or finished in such a manner to prevent the outer yarn or filaments from raveling. The fabric shall be free of defects or flaws which affect the required physical properties.
 2. Sheets of fabric may be sewn or bonded together at the factory or other approved locations but deviation from the physical requirements will not be permitted.
 3. Tests for manufacturer's certification shall be conducted with fabric as shipped by the manufacturer and acceptance testing will be conducted with fabric from the project.

2-02 GEOTEXTILE FABRIC FOR USE UNDER RIPRAP

- A. Unless otherwise specified the fabric shall conform to the physical requirements listed herein.
- B. Staples shall be made of nine gage wire with a minimum length of one inch after bending.
- C. Tests for manufacturer's certification shall be conducted with geotextile fabric as shipped by the manufacturer and acceptance testing will be conducted with fabric from the project.

**TABLE I
GEOTEXTILE FABRICS
MINIMUM AVERAGE ROLL VALUE**

Physical Properties		Test Method
Tensile Strength, lbs (Weaker principal direction)	200	ASTM D 4632 (CRE) (See Note 1)
Bursting Strength, psi.	300	ASTM D 3786, Diaphragm Bursting Tester
Puncture Strength, psi.	80	ASTM D 3787, Tension Testing Machine with Ring Clamp; Steel Ball replaced with a 5/16 inch hemispherical tip.
Trapezoidal Tear, lbs.	65	ASTM D 4533 (CRE) (See Note 1)
Retained Strength when wet, percent	100	ASTM D 4632 (CRE) and ASTM D 3786 and 3787, as above. (See Note 1)
Permeability, cm/sec. (See Note 2)	0.01	AASHTO M 288 (Appendix)
Flow Rate, gal./min./sq.ft (See Note 2)	30	AASHTO M 288 (Appendix)
Equivalent Opening Size (EOS) <u>See Notes 2 & 3)</u>		Miss. Test Method MT 60
Woven Fabric	70-100	
NonWoven Fabric	70+	

Note 1: A test result shall be the average of the test values of five specimens.

Note 2: Unless designated otherwise in the plans or contract documents.

Note 3: The EOS test for nonwoven fabric may be waived by the Testing Engineer.

Note 4: All of the above strength tests except "retained strength" are to be conducted in a dry condition.

Part 3 - EXECUTION

3-01 EXAMINATION

- A. The Contractor shall examine the geogrid, braid and mechanical connection elements upon delivery to verify that the proper material has been received. These materials shall be inspected by the Contractor to be free of flaws or damage occurring during manufacturing, shipping, or handling.
- B. The Contractor shall examine the geotextile to verify that the proper material has been received. These materials shall be inspected by the Contractor to be free of flaws or damage occurring during manufacturing, shipping, or handling.

3-02 PREPARATION

- A. The Contractor shall examine the subgrade conditions to receive the composite geogrid or geotextile and remove any stumps, debris or other deleterious items potentially hazardous to the geogrid or geotextiles prior to installation.

3-03 INSTALLATION

- A. Position – Both the geotextiles and composite geogrid shall be placed at the proper elevation, alignment and orientation as shown on the Drawings or as directed by the Engineer. Correct orientation (roll direction) of the grid composite shall be verified by the Contractor.
 - 1. Composite geogrid shall be ballasted to keep the geogrid in continuous contact with the subgrade when deployed in underwater applications.
 - 2. Geotextiles MUST be temporarily secured in place with staples, pins, sandbags, or backfill as required by fill properties, fill placement procedures, or weather conditions, or as directed by the Engineer.
- B. Composite geogrid shall be connected/spliced when required to provide continuity of tensile resistance. The grid composite shall be connected with high strength HDPE braid to be approved by the Engineer.
- C. Overlap connections may be used if the Contractor provides the Engineer independent test documentation which demonstrates that the load/deformation characteristics of the overlap of geogrid materials is equal to or exceeds those of the geogrid. The minimum overlap shall be as indicated in the project plans and specifications.
- D. Both the geotextiles and composite geogrid shall be placed as smooth as possible and free from tension, stress, folds, wrinkles or creases.
- E. Geotextile fabric may be overlapped a minimum of two feet at each joint or sewn.
- F. Geotextile fabrics which weigh less than eight ounces per square yard shall be factory or field sewn with a "J" type seam. Heavier weight fabrics shall be factory sewn with two parallel bag type seams approximately one-fourth inch apart or field sewn with an additional seam zigzagged across the two parallel seams.

- G. Subsequent courses of material shall be placed in such a manner as to avoid damage to the underlying composite geogrid or geotextile fabric. No equipment will be allowed to operate over the geogrid or fabric until it is covered with a layer of material of sufficient thickness to protect the geogrid and fabric installation. When the underlying soil is very unstable, the two outer one-third portions of an embankment layer shall be placed approximately 25 feet in advance of the center one-third portion to prevent excessive mudwave movements and damage to the fabric installation.
- H. Any geotextiles and composite geogrid damaged during installation shall be repaired in a manner approved by the Engineer or shall be replaced by the Contractor at no additional cost to the MDEQ.

Part 4 COMPENSATION

4-01 MEASUREMENT and PAYMENT

- A. The completed and accepted composite geogrid placed in accordance with these specifications and as directed by the Engineer will be measured and paid for as shown in the bid form. This payment will be full compensation for furnishing and placing the geogrid, pins, lapping, sewing, ballasting, and maintaining the geogrid until covered, and satisfactorily completing the work. Any overwidth of material installed and additional material required for laps or sewing will not be measured or paid for.
 - 1. The additional material required for overlaps, anchor slots, and overwidth of strips will not be measured for payment.
- B. No measurement or payment will be made for geotextile fabric required beneath rock riprap, geotextile fabric shall be considered and absorbed item and incidental to the rock riprap installation.

**SECTION 31 05 23
TURBIDITY CURTAINS**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This work shall consist of furnishing, placing and anchoring protective curtains for turbidity control in accordance with these specifications and in reasonably close conformity to the dimensions, lines, and grades shown on the plans.

1.02 RELATED SECTIONS

- A. Section 01 20 00 - Measurement and Payment Procedures
- B. Section 01 32 00 - Construction Progress Documentation
- C. Section 01 33 00 - Submittal Procedures
- D. Section 01 35 43 - Environmental Protection

1.03 SUBMITTALS

- A. The Contractor shall submit to the Engineer detailed fabrication drawings, and installation sequences and instructions for the turbidity curtains to be installed. The drawings and instructions shall be signed by the responsible parties employed by the manufacturer.

PART 2 - MATERIALS

- A. Type 3 – Turbidity Curtains meeting Heavy Duty and or Tidal Water requirements.
- B. Floatation:
8” or 12” Polystyrene float with a buoyancy of not less than 60 lbs. per cubic foot, sufficient to keep the barrier at a minimal elevation of 3 inches above the water line.
- C. Skirt:
Skirt depth will be as generally shown by water depths on the plans. The skirt will consist of a polypropylene Sieve 70 monofilament filtration geotextile panel.
- D. Fabric:
22 oz per square yard Nylon reinforced Vinyl Fabric (PVC) yellow in color, with UV inhibitors and a minimum grab tensile strength of 500 lbs.
- E. Top Tension Cables:
Corrosion resistant cables and connectors placed immediately below floatation to transfer and distribute load across to other barriers. Minimum load capacity 10,000 lbs.

- F. Bottom Load Chain:
Corrosion resistant ballast and bottom load carrying chain, placed at bottom edge of skirt. Chain to be terminated on each end with stress plates and hook on one end and ring on the other end, to allow sections to connect and transfer any load.
Minimum capacity:
 - i. 3'-10' deep – 7,600 lbs.
 - ii. 11'-22' deep - 10,600 lbs.
- G. Connector Ends:
ASTM Marine Grade Aluminum Universal Slide connectors and grommets for lacing from below the connector to bottom edge of skirt. Extreme edges are reinforced with poly rope.
- H. Seams:
Horizontal seams 100% heat welded and all vertical seams 100% RF welded as recommended by fabric manufacturers.

PART 3 - EXECUTION

- A. Turbidity curtains shall be installed in accordance with the manufacturer's fabrication drawings, and installation sequences and instructions.
- B. The Contractor will place turbidity curtains prior to construction activities and the turbidity curtains shall continue in place throughout, and until the completion of the project.

PART 4 – COMPENSATION

4.01 - MEASUREMENT

- A. Measurement for turbidity curtain shall be made by linear feet of curtained measured in-place after installation.

4.02 - PAYMENT

- A. Payment for turbidity curtains will be made by the linear foot as shown on the Bid Form. Payment shall be full compensation for furnishing, hauling, placing and maintaining all turbidity curtain materials, and for all equipment, tools, labor and incidentals necessary to complete the work in accordance with the Contract Documents.

END OF SECTION

**SECTION 31 35 19
EROSION CONTROL MATTING**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This work shall consist of furnishing and installing the erosion blanket and pre-vegetated erosion control mat; including fine grading, blanketing, stapling, and miscellaneous related work, in accordance with these standard specifications and at the locations identified on drawings or designated by the owner's representative. This work shall include all necessary materials, labor, supervision, and equipment for installation of a complete system.
- B. All work of this section shall be performed in accordance with the conditions and requirements of the contract documents.

1.02 SUBMITTALS

- A. Submittals for approval shall include complete design data, Product Data Sheets, Product Netting Information, SDS, Staple Pattern Guides, Installation Guidelines, Manufacturing Material Specifications, Manufacturing Certifications, CAD details, and a Manufacturing Quality Control Program. In addition, the Manufacturer shall provide a test report providing data showing the performance capabilities of the erosion control blanket along with reference installations similar in size and scope to that specified for the project.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Both erosion control blanket and pre-vegetated erosion control mat shall be furnished in rolls and wrapped with suitable material to protect against moisture intrusion and extended ultraviolet exposure prior to placement.
- B. Erosion control blanket shall be of consistent thickness with fibers distributed evenly over the entire area of the blanket.
- C. Both erosion control blanket and pre-vegetated erosion control mat shall be free of defects and voids that would interfere with proper installation or impair performance.
- D. Both erosion control blanket and pre-vegetated erosion control mat shall be stored by the Contractor in a manner that protects them from damage by construction activities.

PART 2 - MATERIALS

2.01 EROSION CONTROL BLANKET

- A. Erosion control blanket shall provide a temporary, biodegradable cover material to reduce slope and/or channel erosion and enhance revegetation. Erosion control blanket performance capabilities shall be determined by ASTM D 6459.
- B. Erosion control blanket shall be 100% biodegradable similar to American Excelsior Company's Premier Straw Single Net, or equal.
- C. Blanket performance requirements:
 - Slopes: $\leq 3H:1V$
 - C factor: 0.05
 - Shear Stress: 1.55 lb/ft²
 - Velocity: 4.5 ft/sec
 - Functional Longevity : ≤ 12 months
- D. Staples shall be a minimum 4" biodegradable as provided by the manufacturer; or 6" wire for cohesive soils and 6" biodegradable as provided by the manufacturer, or 8" wire for non-cohesive soils. All staples shall have a U-shaped top.

2.02 PRE-VEGETATED EROSION CONTROL MAT

- A. Pre-vegetated erosion control mat shall be a permanent shoreline protective medium with an open-matrix, pre-vegetated, non-organic, UV resistant sheet or blanket material.
- B. Pre-vegetated erosion control mat shall be Martin Ecosystems Ecoshield, or similar as approved by the Engineer.
- C. Staples to secure the pre-vegetated erosion control mat shall be "U" shaped rebar anchor staples a minimum of 8" embedment as provided by the manufacturer. Semi-flexible mesh grating shall be used in conjunction with the rebar staples.

PART 3 - EXECUTION

3.01 SUPPLIER REPRESENTATION

- A. Contractor shall coordinate with the blanket and pre-vegetated erosion control mat supplier for a qualified representative to be present at the job site at the start of installation to provide technical assistance as needed.

3.02 SITE PREPARATION

- A. Before placing, the Contractor shall certify that the subgrade has been properly compacted, graded smooth, has no depressions, voids, soft or uncompacted areas, is free from obstructions such as tree roots, protruding stones or other foreign

matter, and is seeded and fertilized according to project specifications. The Contractor shall not proceed until all unsatisfactory conditions have been remedied. By beginning construction, the Contractor signifies that the preceding work is in conformance with this specification.

- B. Contractor shall fine grade the subgrade by hand dressing where necessary to remove local deviations.
- C. No vehicular traffic shall be permitted directly on the erosion control blanket.

3.03 INSTALLATION

A. Erosion Control Blanket

1. Erosion control blanket shall be installed as directed by the owner's representative in accordance with manufacturer's Installation Guidelines, Staple Pattern Guides, and CAD details. The extent of erosion control blanket shall be as shown on the project drawings.
2. Erosion control blanket shall be orientated in vertical strips and anchored with staples, as identified in the Staple Pattern Guide. Adjacent strips shall be overlapped to allow for installation of a common row of staples that anchor through the nettings of both blankets. Horizontal joints between erosion control blankets shall be sufficiently overlapped with the uphill end on top for a common row of staples so that the staples anchor through the nettings of both blankets.
3. Where exposed to overland sheet flow, a trench shall be located at the uphill termination. Erosion control blanket shall be stapled to the bottom of the trench. The trench shall be backfilled and compacted. Where feasible, the uphill end of the blanket shall be extended three feet over the crest of the slope.
4. Slope erosion control blanket shall be overlapped by the channel erosion control blanket sufficiently for a common row of staples to anchor through the nettings of both blankets when terminating into a channel

B. Pre-Vegetated Erosion Control Mat

1. Pre-vegetated erosion control mat shall be installed as directed by the owner's representative in accordance with manufacturer's Installation Guidelines, Staple Pattern Guides, and CAD details. The extent of mat shall be as shown on the project drawings.
2. Pre-vegetated erosion control mat shall be orientated in horizontal strips and anchored with rebar staples as recommended by the manufacturer, but not more than 6 feet on center, at both the top and bottom of the horizontal strips. Adjacent strips shall be overlapped to allow for installation of a common row of staples that anchor through the nettings of both blankets. Horizontal joints between erosion control blankets shall be sufficiently overlapped with the uphill end on top for a common row of staples so that the staples anchor through the nettings of both blankets.

3.04 CLEAN UP

- A. At the completion of this scope of work, Contractor shall remove from the job site and properly dispose of all remaining debris, waste materials, excess materials, and equipment required of or created by Contractor. Disposal of waste materials shall be solely the responsibility of Contractor and shall be done in accordance with applicable waste disposal regulations.

PART 4 – COMPENSATION

4.01 METHOD OF MEASUREMENT AND PAYMENT

- A. Erosion control blanket shall be measured and paid for at the unit price in the Bid Form.
- B. Pre-vegetated erosion control mat shall be measured and paid for at the unit price in the Bid Form.

END OF SECTION

**SECTION 32 05 34
COASTAL PLANTINGS**

PART 1 - GENERAL

1-01 SCOPE

- A. This section includes furnishing, delivering, planting, and establishing trees, shrubs and ground cover of the type, species, and sizes indicated in accordance with these specifications and accompanying plans, in reasonably close conformity to the locations shown on the plans or directed.
- B. The work includes (but not limited to) furnishing all materials, labor, equipment and services necessary to perform all planting operations and related work, in accordance with the Contract Drawings, Specifications and terms of the Contract at the project

1-02 GUARANTEE

Work covered by this Section shall be guaranteed to the Owner for a period of three (3) months from the time of final acceptance. At the end of the guarantee period (if not before), all dead plant material or plant material not in satisfactory condition shall be replaced at no cost to the Owner. (See paragraph 3-05 A and B, and 3-06 for specific terms of replacement of plant material and conditions of guarantee.)

1-03 REQUIREMENTS

Contractor shall meet the requirements and recommendations of the applicable portions of the following standards:

- a) Standardized Plant Names: Latest Edition, American Joint Committee on Horticulture Nomenclature.
- b) American Standard for Nursery Stock: Latest Edition, American Association of Nurserymen.
- c) Mississippi Fertilizer Law: Rules and Regulations Mississippi Department of Agriculture and Commerce.
- d) All other governing Federal, State and Local Laws, Rules, Regulations and Ordinances applicable to this project and the work described herein and on Contract Drawings.
- e) Shall be performed by a licensed Landscape Contractor.

1-04 FIELD INVESTIGATIONS

Each Bidder/Contractor shall visit the job site and familiarize himself with the nature and location of the work, existing conditions and conditions that will exist under which he will be obligated to operate in the performance of the work.

PART 2 - PRODUCTS

2-01 DELIVERY

Material damaged in transit or in storage will not be accepted. Plants and materials delivered to the site prior to actual usage shall be stored in a place so as not to interfere with other trades or construction operations and shall be protected from damage by weather or other elements as needed for the specific material.

2-02 STORAGE

Plants delivered to site before time of immediate planting shall be stockpiled and kept in a healthy condition. All B & B material shall be heeled in for protection against sun and dry winds. Provide watering as needed. Protect plants from contamination from the elements. Packaged materials shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis.

2-03 MATERIALS - GENERAL

- A. **HANDLING:** Plant materials shall be carefully handled to prevent drying out or damage to stems, trunk, or root ball. Handle plants only by balls, trunks or containers. All materials, including plants, shall be handled so as not to accidentally open containers before time of actual mixing or usage, and shall be handled so as to avoid contamination.
- B. **QUALITY:** All materials are subject to approval by the Engineer and are subject to rejection if in the Engineer's opinion any and/or all materials do not meet the requirements of the Specifications or drawings.

2-04 PLANTS

- A. **PLANT LIST:** Botanical and common names of the Project plants are given on the Plant List included on the Contract Drawings. The Plant Materials List also provides size and quantity requirements. Contractors shall bid on and provide the plants quoted on the drawings in their locations as quantities on the PLANT LIST may not be exact.
- B. **QUALITY:** Plants shall be nursery grown (unless specified otherwise), freshly dug, well formed, vigorous growing specimens with growth typical of the varieties specified and shall be free from injurious insects and diseases. Plants shall have sufficient fibrous feeding roots to permit satisfactory growth after planting. All plants furnished shall have been grown under climatic conditions similar to those in the locality of the project.
- C. **SUBSTITUTIONS:** Substitutions for plant species or size shall be made only with the written approval of the Engineer.

- D. **BALLED AND BURLAPPED (B&B) PLANTS:** Plants to be balled and burlapped shall be dug so as to retain as many fibrous roots as possible, and shall come from soil which will form a firm ball. The soil in the ball shall be the original and undisturbed soil in which the plant has been grown. The plant shall be dug, wrapped, transported, and handled so that the soil in the ball will not be loosened sufficiently to cause stripping of the small and fine feeder roots or to cause the soil to drop away from contact with the roots. Earth balls shall be trim, well shaped, with sufficient earth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Balls shall be wrapped with burlap. Plants grown in containers will be accepted as "B & B" providing that the plants have been growing in the containers for at least one full growing season prior to delivery to the job site and that containers are adequate for the developing root system of that plant.
- E. **CONTAINER GROWN (CG) PLANTS:** Container grown plants shall be well-rooted and established in the containers in which they are sold. An established container grown plant shall be a plant transplanted into a container and grown in that container sufficiently long for new fibrous roots to have developed so that the root mass will retain its shape and hold together when removed from the container. The container shall be sufficiently rigid to hold the ball shape protecting the root mass during shipping and handling.
- F. **INSPECTION:** All plant materials are subject to inspection at any time during the life of the Contract by an authorized representative of the Engineer. Inspections before or during planting operations, however, shall not be construed as final acceptance of the plants involved.
- G. **SIZE REQUIREMENTS:** As per American Standard for Nursery Stock for Caliper, Height, Spread, Container, etc., in the sizes noted on the Plant List. Sizes specified are minimum. Should the specified size not be available, Contractor shall utilize the next larger standard industry size.
- H. **COLLECTED STOCK:** Whenever "collected" stock is specified in connection with a species or variety, the stock shall not be nursery grown, but shall have been grown under natural conditions at the location from which it is acquired. When approved, collected stock may be obtained from areas no longer under cultivation as nursery stock.

2-05 WATER

The owner shall allow the Contractor to use water from existing facilities, if available, for the purpose of project construction. The Contractor shall take steps to assure that the water supply or water used for construction purposes does not become contaminated.

2-06 FERTILIZERS/ROOT STIMULATORS/HERBICIDE

- A. **COMMERCIAL FERTILIZERS:** Shall be complete formula manufactured standard products complying with regulations and laws at the time of bidding. Fertilizers shall be uniform in composition, dry and free flowing, and shall contain not less than the percentage by weight of ingredients set out in the following table:

<u>GRADE</u>	<u>NITROGEN</u>	<u>PHOSPHORUS P-2-0-5</u>	<u>POTASH K-2</u>
10-10-10	10	10	10
14-14-14	14	14	14

An allowance of four percent (4%) variation or tolerance of the above proportions will be permitted based on relative commercial value.

1. Application rates:

- a) Initial fertilization is best done at planting with a complete slow release fertilizer, such as Osmocote® (or approved equal) 14-14-14, placed under the plant at a rate of 1.5 grams per plant.
- b) Initial fertilization may also be provided with 200 to 300 pounds of mineral 10-10-10 per acre broadcast six weeks after planting.

B. ROOT STIMULATOR: The establishment of bareroot and stem cuttings shall be assisted by using fertilizer combined with a water absorbing granules known as, hydrogel. Hydrated hydrogel combined with fertilizer shall be placed in the planting hole just prior to plant placement.

2-07 MULCH

Mulch, if specified for use in tree, shrub, and ground cover planting operations shall be clean, fresh, insect free pine straw (unless noted otherwise on the plans) and shall be free from weeds, disease organisms, spores, or other foreign material or any substance inhibitory to plant growth.

PART 3 - EXECUTION

3-01 ENVIRONMENTAL CONDITIONS

Conduct planting operations in weather conditions which provide favorable temperature, moisture and soil conditions for plant growth. Coastal Planting should typically take place in late winter through early summer. When soil and weather conditions are adverse to proper planting, the planting operations shall be suspended. Planting operations shall take place during seasons which are normal for such work, unless directed otherwise by the Engineer.

3-02 PLANTING OPERATIONS

- A. The Contractor shall not start or resume work if there is a danger of his work being damaged or destroyed by the work of other trades on the job in the normal pursuit of their trade. The Landscape Contractor shall coordinate with the General Contractor and/or other trade Contractors on the job site.
- B. The Contractor shall check for locations of both underground utilities/lines that might interfere with his portion of the work. Report potential interferences to the Engineer prior to planting.

- C. Plant material shall be placed as indicated on the drawings. The Contractor shall notify the Engineer of any errors, omissions, discrepancy, or conditions, on the site at or before time of planting which are not shown on Drawings or in Specifications, and which make placing adjustments necessary. Upon notification, the Engineer will furnish the Contractor with adjustments or corrected positions. Plant materials shall be located as indicated on the drawings and their locations approved on site by the Engineer prior to installation.

3-03 CARE AND HANDLING OF PLANTS

- A. Unless otherwise allowed by the Engineer, all plants with bare roots that are not planted within four hours after delivery to the project shall be "heeled-in" in a moist soil.
- B. All heeled-in plants shall be properly maintained by the Contractor until planted. When plants are delivered in boxes, wrapped bundles, or other forms of closed packages, the packages shall be opened immediately after delivery and the plants inspected and dampened if necessary. While plants with bare roots are being transported to and from heeling-in beds, or being distributed for planting, the roots shall be protected from drying out by means of wet canvas, burlap, straw or by other approved methods.

3-04 PLANTING OPERATIONS - INSTALLATION

- A. Stake out on the ground, locations for plants as per dimensions and scale on Drawings, with lines and spacing conforming to the layout shown on the Drawings.
- B. Generally, little site preparation is required before coastal vegetation is planted. Sand fences should be installed prior to planting coastal vegetation and trash and debris removal may be required to prevent planting difficulties.
- C. DETRIMENTAL CONDITIONS: Notify the Engineer immediately of subsurface drainage or soil conditions which the Contractor sees as detrimental to growth or survival of plant material. Obtain approval of method of correction before proceeding.
- D. SETTING PLANTS:
 - 1. Stolons or rhizomes should be planted 4 to 12 inches deep, or deep enough to have adequate soil moisture at the time of planting. Cut stems should be planted at a 45-degree angle, deep enough to bury several growth nodes. Use a tree dibble or hand/foot shovel to plant vegetative material. Large, flat sites can be planted more economically using a tractor drawn transplanter with planting plows that create furrows 8 to 15 inches deep.
 - 2. Vegetation must be planted as shown in the Construction Drawings. Planted rows should be staggered.
 - 3. Set plants on compacted planting soil to such depths that the finished grade level of the plant after settlement shall be same as that at which the plant was grown.
 - 4. Plant upright and faced to give the best appearance or relationship to adjacent waterways.

3-05 PROJECT COMPLETION - PLANT MATERIALS

- A. CLEAN-UP: The site shall be free of containers, wrapping, discarded plant materials, excess soils, and other material or debris not intended to remain on the site.
- B. MAINTENANCE BY CONTRACTOR:
 - 1. The Contractor shall use good horticultural practices to keep all plants installed in a healthy condition until final inspections. This shall begin immediately after all plants are planted and shall continue until all planting has passed final inspection for Release of Maintenance.
 - 2. Shall include watering, weeding, cultivating, mulching, fertilizing (when needed), removal of dead materials, resetting plants to proper grades or upright position and restoration of the planting saucer and other necessary operations.
 - 3. Keep vegetative stock moist before and after transplanting to minimize planting shock. If the plants have been growing in or irrigated with fresh water or with water of a much lower salinity than the purposed planting site, they should be hardened to near the salinity of the planting site. Consult with supplier to determine how they were grown.

3-06 GUARANTEE, INSPECTION, AND ACCEPTANCE

- A. INSPECTION: To determine completion of Contract, exclusive of the possible replacement of plants, an inspection will be made by the Engineer at the conclusion of all planting (the pre-final inspection), and again 3 months thereafter (the final inspection). It shall be the responsibility of the Contractor to request the pre-final and final inspections by the Engineer.
- B. PLANT ESTABLISHMENT PERIOD: The Contractor is responsible to replace mis-shapen, dead, dying, stunted, or unhealthy plant material for a period of 3 months, BEGINNING at the pre-final inspection of the completed plantings. Plant material shall be alive and in a satisfactory condition and growth for each specified species of plant at the end of the plant establishment period, unless the plant material has suffered from direct damage by the Owner.
 - 1. Replacements shall be at no cost to the Owner. If any of the plant material is damaged directly or indirectly as a result of the work prior to final acceptance of the complete project, including work other than landscaping, said material shall be replaced by the Contractor at no cost to the Owner.
- C. REPLACEMENT:
 - 1. During or at the end of the plant establishment period, any plant required under this Contract which is dead or not in satisfactory condition as determined by the Engineer, shall be removed and replaced. Not in satisfactory condition shall include stunted, unhealthy mis-shapen, dead and dying.
 - 2. The Contractor SHALL NOTIFY the Engineer when he plans to replace the plant(s) so that the Engineer and/or the Owner may be present at the time of replacement.

3. Replacement plants shall be guaranteed for a period of three (3) months after replanting. Replacement plants shall be of the same variety and species as provided on the original plant list, herein and on Drawings, unless directed otherwise by the Engineer. Replacement shall be at the expense of the Contractor. Replacement can be delayed until environmental conditions are most conducive to plant establishment upon agreement between the Owner, Engineer, and Contractor.

PART 4 - COMPENSATION

4-01 MEASUREMENT

- A. Undamaged and healthy plants in place at the time of final inspection will be measured per square foot for each species, size and type specified on the Bid Form.

Furnishing, installation, staking or guying, weed and grass control, pruning, removal of dead and defective plants will not be measured for separate payment.

Fertilizer ordered and acceptably used will not be measured for separate payment.

Mulch ordered and placed in accordance with the requirements of these specifications will not be measured for separate payment.

Water ordered and acceptably used will not be measured for separate payment.

Construction of water rings, haul and disposal of surplus or unsuitable excavation, and other plant establishment work required in the Contract shall be considered incidental to planting and will not be measured for separate payment.

Measurement for payment will be made in the following sequence:

1. When all plants have been planted in accordance with the Contract, 90 percent of the Bid Line Item will be allowed.
2. Upon Final Inspection, 100 percent of the unit price will be allowed for plants meeting the requirements of the Contract. This does not relieve the Contractor from the 3-month warranty period.

4-02 PAYMENT:

- A. Accepted quantities of each species, size and type of plant will be paid for at the Contract unit price as shown on the Bid Form. Prices thus paid shall be full compensation for completing the work.

END OF SECTION

**SECTION 35 12 10
AIDS TO NAVIGATION (ATON)
(NOT APPLICABLE)**

PART 1 - GENERAL

1.01 SUMMARY

- A. The Contractor shall furnish all labor, equipment, materials, and incidentals necessary to install permanent navigational markers as shown on the Construction Drawings and in accordance with the U.S. Coast Guard (USCG) marking determination (Appendix E).
- B. The Contractor shall also be responsible for installing and maintaining temporary navigational markers or lighted beacons during construction of the containment berms in accordance with applicable federal, state, and local laws, ordinances, and relevant permit requirements. Contractor shall install temporary navigational markers as necessary to identify maritime risks. Contractor shall remove the temporary navigational markers upon completing installation of the required permanent navigational markers.
- C. The Contractor shall display signal lights and conduct operations in accordance with the General Regulations of the Department of the Army and of the U.S. Coast Guard as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-Inland (COMDTINST M16672.2), or 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland) as applicable.

1.02 RELATED DOCUMENTS:

- A. Appendix E – USCG Marking Determination Package

1.03 REFERENCES

- A. American Wood Preservers Association: AWPA P5 – Standard for Waterborne Preservatives
- B. U.S. Coast Guard: USCG Code of Federal Regulations, Title 33, Chapter 1, Parts 62, 64, and 66

1.04 SUBMITTALS

- A. Before the Contractor orders ATON materials, the following shall be submitted in accordance with SECTION 01 33 00 – SUBMITTAL PROCEDURES:
- B. Requirements for submittals. The failure of Contractor to obtain approval prior to ordering material shall be grounds for non-payment.
- C. Manufacturer's Data Sheets: The Contractor shall submit the manufacturer's data sheets for all permanent ATON including buoys, lights, signs, reflective material, pilings, and any other material used for the ATON. The data sheets shall include the name of the manufacturer, product name, style number, and other relevant information to fully describe the ATON material.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Temporary ATON
 - 1. Warning Buoys – 1 nautical mile (NM) USCG-approved marine lanterns (1 Candela LED Rating), buoys with solar powered, flashing white light with flash period of 2.5 seconds (0.3 seconds on / 2.2 seconds off)

B. Permanent ATON

1. Pilings: 30-foot-long, class 4 timber pilings, pressure treated with Chromated Copper Arsenate at 2.5 pounds per cubic foot per AWWA C2.
2. Signs: Contractor shall install the signs indicated in the USCG Determination Package with the lettering "DANGER BREAKWATER" in black text on white dayboard film background, with 2-inch orange retroreflective border. All hardware connecting the sign shall be hot-dipped galvanized or approved equal. Examples of USCG-approved signage is included in Appendix E.
3. Lights: Contractor shall install lights meeting the requirements described in Appendix E.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Prior to installation, the Contractor shall determine if underground utilities exist in the proposed locations of the permanent ATON. The Contractor shall also verify water depths and bottom types at the locations.
- B. As the work progresses, the Contractor shall install temporary or permanent ATON as applicable at the locations specified in the Construction Drawings and in Appendix E. Discrepancies between the coordinates designated on the USCG permit or Construction Drawings shall be reported to MDEQ or its designated representative prior to installation.
- C. The Contractor will place temporary ATON prior to construction and shall maintain the temporary ATON **throughout the project** until installation of the permanent ATON is complete. Contractor shall relocate temporary ATON by request of MDEQ, Engineer, USCG, or USACE during construction without incurring additional cost to MDEQ. The Contractor shall remove temporary ATON and install permanent ATON prior to final acceptance of the project. All temporary ATON will be considered property of the Contractor and Contractor shall take full responsibility for removal, transportation, storage, or proper disposal of the temporary ATON.
- D. Timber piles shall be carefully handled with no sudden dropping, breaking of outer fibers, bruising, or penetration of the surface with tools. Piles damaged or not located in the proper location shall be withdrawn and replaced by new piles or shall be cut off at the mud-line and additional piles installed as directed, without additional cost to MDEQ.
- E. Signs shall be installed so that the bottom of the signage is a minimum of 7 feet above the mean high-water level and does not exceed 9 feet above the mean high-water level. The Contractor shall shorten the pilings dictated by the normal mean high watermark in the project area, as necessary. Each sign shall be fastened with at least three 3/4-inch diameter by 12-inch long hot-dipped galvanized bolts and connected with a hot-dipped galvanized ogee washer, lock washer, and nut. Bolt holes shall be bored 1/8-inch larger than the diameter of the bolt.
- F. If any damage occurs to permanent ATON placed during construction, the Contractor shall replace or repair the ATON at no cost to MDEQ and at the direction of MDEQ or its authorized representative.

END OF SECTION 35 12 10

SECTION 35 31 19
RIPRAP

PART I GENERAL

1-01 DESCRIPTION

- A. The Contractor shall furnish all labor, equipment, materials, and incidentals necessary to install the rock riprap containment berm as described herein and in the Construction Drawings. The work shall include, but is not necessarily limited to, purchase and installation of stone to construct containment berm as shown in the Construction Drawings.

1.02 RELATED SECTIONS

- A. Section 01 20 00 - Measurement and Payment Procedures
- B. Section 01 32 00 - Construction Progress Documentation
- C. Section 01 33 00 - Submittal Procedures
- D. Section 01 35 43 - Environmental Protection
- E. Section 31 05 21 -Geotextile and Geogrid
- F. Section 35 12 10 – Aids To Navigation

1.03 SUBMITTALS

- A. The Contractor shall submit to the Engineer test reports for the material to verify it meets the requirements of the Contract Documents. The test reports shall be signed by the responsible parties employed by the manufacturer and supplied to the Engineer not less than 14 days prior to the commencement of construction.
- B. Additionally, the Contractor shall submit to the Engineer, for each borrow source, test reports for each 1,000 tons of material placed.

PART 2 MATERIALS

2-01 STONES

- A. Riprap, of the sized specified in the proposal, shall meet the requirements for size by weight of the mass as specified in Section 705.04 of the MDOT, Standard Specifications, 2017 edition.

PART 3 EXECUTION

3-01 GENERAL

- A. Prior to the construction of riprap, the slopes or ground surface shall be shaped to lines and grades indicated in the Contract Documents, or as directed.
- B. Contractor shall review the existing water depths prior to commencing installation operations.
- C. All the outer edges and the top of the riprap where the construction terminates shall be formed so that the surface of the riprap will be embedded and even with the surface of the

adjacent slope or ground, and on slopes, the bottom of the riprap shall be placed at least (2) feet below the natural ground surface unless otherwise directed.

- D. All riprap shall be started at the bottom of the slope, progressing upward.
- E. Riprap shall be placed in lifts or as directed by the Engineer. Riprap shall be placed in such a manner that minimizes the development of wrinkles in and/or movement of the grid composite.
- F. Material shall be placed in such a manner as to avoid damage to the underlying composite geogrid or geotextile fabric. No equipment will be allowed to operate over the geogrid or fabric until it is covered with a layer of material of sufficient thickness to protect the geogrid and fabric installation. When the underlying soil is very unstable, the two outer one-third portions of an embankment layer shall be placed approximately 25 feet in advance of the center one-third portion to prevent excessive mudwave movements and damage to the fabric installation.

3-02 ROCK RIPRAP

- A. The stones shall be placed upon a slope not steeper than the natural angle of repose of the filling material. The stones shall be laid with close joints. The course shall be laid from the bottom of the bank upward, the larger stones being placed in the lower courses. Larger interstices shall be filled with smaller stones and spalls.

3-03 INSPECTION AND ACCEPTANCE

Phase 1

1. As soon as practicable after completion of the work shown in the Construction Drawings and required by this section, the Work shall be thoroughly examined by the Contractor, Engineer, and by controlled survey at the expense of the Contractor.
2. Should any material deficiency such as but not limited to: less than required berm section; width; elevations; or slopes be disclosed by this examination, the Contractor shall continue Work at the deficient segment until the unacceptable condition is corrected.
3. After the berm is identified as materially complete, the settlement monitoring surveys will commence as outlined in Section 01 32 23.
4. The acceptable tolerances for berm construction are +/-3 feet of the horizontal position and +/-0.2 feet in elevation.

Phase 2

1. As soon as practicable after completion of the work shown in the Construction Drawings and required by this section, the Work shall be thoroughly examined by the Contractor, Engineer, and by controlled survey at the expense of the Contractor.
2. Should any material deficiency such as but not limited to: less than required berm section; width; elevations; or slopes be disclosed by this examination, the Contractor shall continue Work at the deficient segment until the unacceptable condition is corrected

3. The acceptable tolerances for berm construction are +/-3 feet of the horizontal position and +/-0.2 feet in elevation.
4. If the performance in any required service is unsatisfactory, and poor performance is the fault of the Contractor, MDEQ at no expense to MDEQ, will deduct the cost of having the Work performed by another party from payment due the Contractor. Deductions will be based on the Contractor's Bid Form, MDEQ's cost to perform the Work, or MDEQ's cost to have another contractor perform the Work.

PART 4 COMPENSATION

4-01 MEASUREMENT

- A. Rock Riprap: Per ton installed to the nearest tenth (1/10) based on delivery tickets or barge displacement.
- B. Geotextile Fabric: No separate measurement or payment shall be made for fabric beneath Loose Stone Riprap.

4-02 PAYMENT

- A. General: Payment for loose stone riprap shall be made at the Contract Unit Price for each complete in place and accepted; which price shall be full compensation for furnishing, hauling and placing all riprap and slope protection materials; for all excavation, subgrade preparation, and backfilling; for all grouting if specified; and for all materials, equipment, tools, labor and incidentals necessary to complete the work in accordance with the Contract Documents.
- B. Geotextile fabric, water, tamping, and other items incident to completion of the riprap containment berm shall not be measured and no separate payment shall be made for such items.

**SECTION 35 73 13
BERM MATERIAL**

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes labor, material, and equipment necessary for the placement of berm material.

1.02 GENERAL

- A. This work consists of the embankment, material, preparation of subgrades, construction of berms, and the compaction and armoring of the earthen and rock riprap containment berms. All work shall be followed in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans.
- B. Contractor shall furnish all earth-moving equipment, labor, materials, tools, equipment, and incidentals thereto and perform all operations in connection with the work and complete the work as designated on the accompanying plans and as specified herein.
- C. All material shall be installed in strict conformance with the manufacturers recommendations and industry standards. All testing references are for general reference only. The most recent testing standards shall apply.
- D. Contractor shall ensure that erosion control measures, including turbidity curtain, are in place and operational prior to commencing base preparation.

1.03 RELATED SECTIONS

- A. Section 01 20 00 - Measurement and Payment Procedures
- B. Section 01 29 00 – Payment Procedures
- C. Section 01 31 00 – Project Management and Coordination
- D. Section 01 33 00 - Submittal Procedures
- E. Section 01 35 43 – Environmental Protection
- F. Section 01 40 00 - Contractor Quality Control

1.04 REFERENCES

- A. Latest version of American Society for Testing and Materials (ASTM) standards:
 - 1. ASTM D 422, Standard Test Method for Particle-Size Analysis of Soils.
 - 2. ASTM D 698, Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
 - 3. ASTM D 1556, Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
 - 4. ASTM D 1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).

5. ASTM D 2216, Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock.
6. ASTM D 2487, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).
7. ASTM D 2922, Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
8. ASTM D 2937, Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method.
9. ASTM D 3017, Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).
10. ASTM D 4220, Standard Practices for Preserving and Transporting Soil Samples.
11. ASTM D 4318, Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.05 SUBMITTALS AND QUALIFICATIONS

- A. The Engineer and testing laboratory shall have free access to all points where earthen berm materials are stored, proportioned or (if applicable) mixed, and all materials, equipment and methods used shall be subject to their inspection, and approval.
- B. The Contractor shall submit to the Engineer, for each borrow source, the following information for the proposed berm materials, a minimum of 14 days prior to the commencement of construction:
 1. The results of grain-size analyses conducted on the proposed material in accordance with ASTM D 422.
 2. The results of liquid and plastic limit tests conducted on the proposed material in accordance with ASTM D 4318.
 3. The results of a Standard Soil Proctor Test in accordance with ASTM D 698.
- C. Additionally, the Contractor shall submit to the Engineer, for each borrow source, the results of grain-size analyses conducted in accordance with ASTM D 422, for each 4,000 cubic yards of material placed.

PART 2 - MATERIALS

2.01 BERM CONSTRUCTION MATERIAL

- A. The material shall be primarily medium or coarse sandy material (SW, SP, SM, or SC as classified by the Unified Soil Classification System) with not greater than 10% fine-grained material passing the #200 sieve. Additionally, the medium or coarse sand material shall be not less than 60% retained by the #50 sieve.
- B. The Contractor shall locate the soil fill material utilized for construction of the sand berm. The backfill material shall be free of debris, foreign objects, roots, organics and other materials considered deleterious by the Owner/Engineer. The soil shall be made up primarily of a sandy material, (SW, SP, SM, or SC as classified by the Unified Soil Classification System).

PART 3 - EXECUTION

3.01 ORDER OF WORK

- A. Work Hours- Operations may be performed 24 hours a day, 7 days a week, including those days which have been declared by Congress to be legal holidays for per diem employees of the Federal government.
- B. The Contractor shall notify the Engineer at least 7 days in advance of intention to perform the work of this Section.
- C. If work is interrupted for reasons other than inclement weather, the Contractor shall notify the Engineer a minimum of 24 hours prior to the resumption of work.
- D. Site Investigation
 - 1. The Contractor is responsible for conducting site investigations. It will be the Contractor's responsibility to visit the sites of Work to determine for himself the conditions affecting the Work to include, but not necessarily limited to, the following: a. Location and condition of existing above water and subsurface conditions located adjacent to and within the job limits as shown on the Contract Documents.

3.02 PLACEMENT OF FILL MATERIAL

A. General Requirements

1. All sand material shall be used for the construction of the containment berms in accordance with the requirements and limitations specified herein. All costs associated with the requirements of the project shall be included in the Bid Form.
2. Installation operations will be suspended at any time water of poor quality is being released into the river based on turbidity monitoring reports.

B. Construction

1. Containment Berm. The Contractor shall be responsible to maintain in satisfactory operating condition, the Containment Berms during the course of construction. The Contractor will not be held responsible for erosion caused by waves or tidal action after final completion of the project.
2. Contractor shall review the existing water depths prior to commencing installation operations.
3. Mechanical operations may be needed to place material to the required lines and grades. The Contractor shall address the placement methods(s) for each Acceptance Section in the Work Plan. Stockpiling, additional longitudinal dikes, and/or other special handling may be needed. It is the Contractor's responsibility to place material to the specified lines and grades within the fill cross section.
4. The material within the project containment limits shall be installed to designated earthen berm locations. There are no provisions for stock piling or dewatering material within the project limits.
5. Unsuitable or perishable materials such as rubbish, sod, brush, roots, logs, stumps (after removal), heavy vegetation, etc., shall not be incorporated in the berms. Rocks, broken concrete, or other solid material shall not be placed in berm areas unless so directed by the Engineer. Such materials shall be removed and hauled to an approved site for disposal at no additional cost to the Agency.
6. Contractor shall place the necessary quantity of fill material as to ensure the specified heights are sustained over the entire length of the proposed berms.
7. The Contractor shall install settlement plates prior to earthen berm material installation as shown on the Construction Drawings and as described below.
 - a. Settlement plates shall be constructed with a 4 foot by 4 foot, ¼-inch thick steel plate with a 2.5-inch diameter steel riser pipe attached to the center of the plate. The settlement plates shall be hot dipped galvanized after fabrication. The riser pipe shall extend a minimum of 3 feet above the design elevation of the berm material.
 - b. Settlement plates shall be placed after installation of the geogrid system and prior to berm material installation at the locations detailed in the Construction Drawings. Plates shall be placed so that the riser pipe is no more than 5

- degrees from true vertical. The riser pipe shall be marked with reflective tape or flagging.
- c. During installation of the berm material, the Contractor shall carefully place materials near the settlement plate and maintain the plates until completion of the appropriate phase of the project. After acceptance of the earthen berm, the Contractor shall cut or remove the riser pipe so that it is no more than 6 inches above the top of the constructed earthen berm elevation.
 - d. Settlement plates shall be surveyed per SECTION 01 32 23 – SURVEYS AND LAYOUT DATA.
8. Earthen material shall be placed in lifts or as directed by the Engineer. Earthen material shall be placed in such a manner that minimizes the development of wrinkles in and/or movement of the grid composite.
 9. Material shall be placed in such a manner as to avoid damage to the underlying composite geogrid or geotextile fabric. No equipment will be allowed to operate over the geogrid or fabric until it is covered with a layer of material of sufficient thickness to protect the geogrid and fabric installation. When the underlying soil is very unstable, the two outer one-third portions of an embankment layer shall be placed approximately 25 feet in advance of the center one-third portion to prevent excessive mudwave movements and damage to the fabric installation.
 10. Contractor shall plant new wetland vegetation as to ensure successful growth and as directed by supplier. Plantings shall cover top berm areas and sloped sides to at least the MLLW for the entire length of the berms as shown in the drawings.
 11. Armoring of berm and the placement of wetland vegetation shall be in strict conformance with Regulatory Permits.
 12. No payment will be made for the relocation of material determined to be loosened and or lost into the existing river channel through carelessness or negligence on the part of the Contractor.
 13. All berms shall be constructed to the shape and slopes as described in the construction plans and details. Surfaces shall be neatly and smoothly trimmed. All new grading shall be blended into the surrounding, existing terrain.
 14. All earthen containment berms are to be covered with an erosion blanket and sprigged immediately to prevent erosion. Coastal plantings will be as shown on the Construction Drawings and as described elsewhere in the Technical Specifications.

3.04 FINAL CLEANUP

- A. Final cleanup shall include the removal of all the Contractor's equipment and excess material. Equipment and material to be disposed of shall ONLY be disposed of in a manner and at locations approved by MDEQ. Unless otherwise approved in writing, the Contractor will not be permitted to abandon pontoons or other equipment in the disposal area, access areas, water areas, or other areas adjacent to the Work site. Pilings and any other debris

removed or created as a result of the execution of this Contract shall be disposed of in a manner and at locations approved by MDEQ.

3.05 PERMITS AND RESPONSIBILITIES

A. The Contractor's attention is directed to Section 01 35 43 ENVIRONMENTAL PROTECTION and the Appendices referenced herein.

3.06 QUALITY CONTROL (Refer to Section 01 40 00)

A. Permits and Licenses

Department of the Army, Corps of Engineers and Mississippi Marine Resources (DMR) permits for the dredging and placement of the material in the shown in the Construction Documents have been obtained by the OWNER. The Contractor shall comply with all terms and conditions of the permits.

3.07 QUALITY ASSURANCE

A. MDEQ will monitor the Contractor's performance in each functional area under this Contract and reserves the right to use whatever additional surveillance procedure is deemed appropriate.

B. INSPECTION AND ACCEPTANCE

Phase 1

1. As soon as practicable after completion of the work shown in the Construction Drawings and required by this section, the Work shall be thoroughly examined by the Contractor, Engineer, and by controlled survey at the expense of the Contractor.
2. Should any material deficiency such as but not limited to: less than required berm section; width; elevations; or slopes be disclosed by this examination, the Contractor shall continue Work at the deficient segment until the unacceptable condition is corrected.
3. After the berm is identified as materially complete, the settlement monitoring surveys will commence as outlined in Section 01 32 23.
4. The acceptable tolerances for berm construction are +/-3 feet of the horizontal position and +/-0.2 feet in elevation.

Phase 2

1. As soon as practicable after completion of the work shown in the Construction Drawings and required by this section, the Work shall be thoroughly examined by the Contractor, Engineer, and by controlled survey at the expense of the Contractor.
2. Should any material deficiency such as but not limited to: less than required berm section; width; elevations; or slopes be disclosed by this examination, the

Contractor shall continue Work at the deficient segment until the unacceptable condition is corrected.

3. The acceptable tolerances for berm construction are +/-3 feet of the horizontal position and +/-0.2 feet in elevation.
4. If the performance in any required service is unsatisfactory, and poor performance is the fault of the Contractor, MDEQ at no expense to MDEQ, will deduct the cost of having the Work performed by another party from payment due the Contractor. Deductions will be based on the Contractor's Bid Form, MDEQ's cost to perform the Work, or MDEQ's cost to have another contractor perform the Work.

PART 4 - COMPENSATION

4.01 Method of Measurement

- A. Measurement for berm material shall be measured by Loose Vehicular Measure based on the barge displacement tables as detailed in Section 01 20 00 – Measurement and Payment Procedures.
- B. Moisture content will be determined from samples taken from each barge of material. The weight of the moisture contained in the material will be deducted from the overall barge tonnage and cubic yardage of dry material will be measured based on dry unit weight from the provided Proctor tests.

4.02 Method of Payment

- A. Payment for Berm Material will be made by the cubic yard utilizing measurement methods described in 4.01. (CY – LVM).

END OF SECTION