BID DOCUMENTS

For

Jekyll Island
Phase 2 Shoreline Rehabilitation

Jekyll Island, GA

Prepared By:

Applied Technology & Management
411 Pablo Avenue
Jacksonville Beach, FL 32250
GA License No.: PEF003339

For:

Jekyll Island Authority
100 James Road
Jekyll Island, GA 31527

December 3, 2018
Jekyll Island
Phase 2 Shoreline Rehabilitation

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J EKYLL ISLAND
PHASE 2 SHORELINE
REHABILITATION PROJECT

SECTION A

INSTRUCTIONS TO BIDDERS
INSTRUCTIONS TO BIDDERS

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1.0 DEFINED TERMS

The terms used in these Instructions to Bidders shall have the meanings assigned to them herein which are applicable to both the singular and plural form thereof.

1.1 Owner: Jekyll Island – State Park Authority (JIA)
100 James Road, Jekyll Island, Georgia 31527

1.2 Owner's Representative: To be identified prior to award.

1.3 Contractor: The Contractor is the qualified Bidder who submits the preferred bid as determined by the Owner and the Engineer and is contracted to perform the work.

1.4 Engineer/Design Professional: Applied Technology & Management, Inc. (ATM)
411 Pablo Avenue, Jacksonville Beach, Florida 32250
Heath Hansell, PE (GA No.: PE042340); Office: 843-414-1040

1.5 Bid Documents: Includes the Instructions to Bidders, the Bid Form, the Form of Construction Contract, Supplementary Conditions, the Bid Drawings, and the Technical Specifications.

2.0 PROJECT SCOPE

2.1 Elements of Work:

The Project is located along ~16,000 ft of the Jekyll Island shoreline and includes rehabilitation of the existing perched beach area on the landward side of an existing rock revetment and a transitional shoreline area north of the main rock revetment consisting of sandy beach, scattered rocky areas, and large driftwood trees. The project (including the base bid and bid alternates) involves:

- construction of a rock revetment return section connecting the existing main rock revetment back to the upland shoreline;
- placement of geotextile fabric and up to 119,550 cubic yards of beach fill on the landward side of the revetment, including dune features;
- placement of up to 8,900 cubic yards of a dune feature fill and installation of a buried 15 ft circumference sand-filled geotextile tube for scarp protection along a 1,000 ft transitional shoreline at the north limit of the project area;
- planting of native beach vegetation; and
- installation of sand fencing and post and rope fencing along portions of the project.

A sand borrow source has been identified and permitted for the project. The borrow source is a confined disposal facility, Jones-Oysterbed Island, and situated along the Savannah River as indicated in the Drawings. Approved sand transport operations are indicated in the Drawings and Specifications. Alternate sand sources and transport operations may be proposed but must be accompanied by material test data to indicate close conformance to GADNR beach compatible sand material specifications for expedited regulatory approval.

JIA has identified a series of access points and staging areas for consideration by each Bidder.

Please refer to the attached Bid Drawings and Technical Specifications for additional project details.

All materials, equipment, and assembled systems shall be new (unless noted otherwise in the Drawings and Specifications), complete, and ready for Owner’s use at completion of the Work. The Bid shall include all protections, temporary work, earthwork, environmental protection and monitoring, testing, surveys, and inspections required to complete the Work for handover to the Owner at completion.
2.2 Work Plan & Construction Schedule:

Bidders shall submit a detailed Work Plan and schedule with the Bid. The Work Plan must include, at a minimum, the proposed date of commencement, Owner required project completion milestones (listed below), and dates for Substantial and Final Completion.

A sequencing plan has been developed in an attempt to prioritize the work. Work areas are indicated in the Bid Alternates. With the above in mind, Bidders are requested to provide a schedule which incorporates the Owner-identified Work Areas and minimizes total construction time. Schedule may be affected by the terms of the regulatory permits, and the Bidder shall review available documentation when developing his schedule. Bidder shall fill in the below table and submit with the Bid assuming a Notice to Proceed date of **January 30, 2019**.

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Completion Priority Neglecting Turtle Season Restrictions*</th>
<th>Proposed Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice to Proceed to Contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commencement of Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Bid (Sand Placement) Substantial Completion</td>
<td>High</td>
<td>January 30, 2019</td>
</tr>
<tr>
<td>Bid Alternate #1 Substantial Completion</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Base Bid (Remaining Items) Substantial Completion</td>
<td>Intermediate</td>
<td></td>
</tr>
<tr>
<td>Bid Alternate #2 Substantial Completion</td>
<td>Intermediate</td>
<td></td>
</tr>
<tr>
<td>Bid Alternate #3 Substantial Completion</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Completion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*SCHEDULE NOTE (TURTLE SEASON):* Permit conditions require all work seaward of the existing revetment to occur outside of sea turtle nesting season (May 1 through October 31). It is anticipated that all or portions of Bid Alternates #1, #2, #3, and #4 will require work seaward of existing revetment and must therefore be completed outside of (before) turtle nesting season.

Contractor may submit an alternative schedule that does not meet Owner’s specified completion date if there is value add to Project (e.g., construction cost savings). Any alternative schedule must include dates for the milestones identified above or explanation how milestones have been revised. If Contractor alternative schedule is accepted by the Owner, the alternative schedule will be incorporated into the Contract and will be the baseline for assessment of any liquidated damages clause.

2.3 General Guidelines:

Construction hours this project are as follows:

- 7 AM to sunset (no work shall occur between sunset and sunrise), Work during weekends is allowed with Owner authorization.

The Work Zone is along a public beach shoreline which is wildlife habitat and backed by residential development in most of the Work Zones. The Contractor shall be required to submit with their Work Plan a list of potential noise mitigation strategies for Owner review and approval.

The Contractor must arrange for their own construction debris and trash collection and disposal on a daily basis.

The Contractor is ultimately responsible for complying with any and all local and national labor laws as well as all applicable local, state, and federal regulations and work authorizations.
2.4 Site Access, Staging and Storage:

The Owner has identified a series of potential access points and staging areas within and adjacent to the Work area. Some of these access points and staging areas may require improvements for use and shall be coordinated with Owner prior to construction. The Contractor shall propose a staging plan for the Project with their Work Plan and coordinate such with the Owner prior to construction. A preliminary access and staging plan shall be provided with the Bid for Owner review. Contractor is responsible for ensuring that their access and staging/lay-down areas do not conflict with proposed construction activities or unnecessarily inhibit public access on the upland or the shoreline Work area.

2.5 Shop Drawings:

For any required shop drawing items, no fabrication or installation of any element or system shall take place until Contractor’s Shop Drawings and material submittals are reviewed and accepted by the Engineer.

2.6 Building Permits:

The Contractor shall adhere to all applicable building codes and shall be responsible for procurement of all applicable local construction permits which are not provided by the Owner. Contractor shall provide the Owner with a copy of any and all local building permits, as well as any GADOT and US Coast Guard (if applicable) permits required for the hauling and transport aspects of the Work. The cost of all licenses/approvals to do the work shall be the Bidder’s responsibility.

2.7 Regulatory Approvals:

The Owner has received an individual permit from the Georgia Department of Natural Resources (State) and is anticipating receiving a Department of the Army (Federal) permit prior to the Notice to Proceed. Copies of the currently available permit documents are included in Section E. The Contractor shall comply with all stipulations and conditions of the regulatory permits.

3.0 BIDDING

3.1 Copies of Bid Documents:

Bid documents will be provided electronically via email.

3.1.1 Complete sets of Bid Documents must be used in preparing Bids; neither the Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

3.1.2 The Owner and Engineer, in making copies of Bid Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

3.1.3 In the event of conflict among the Contract Documents, the Construction Contract shall control over the Bid Documents. In the case of any inconsistency or conflict among the specific provisions of the Construction Contract (including any amendments accepted by both the State Entity and the Contractor attached hereto), the Bid Documents (including any subsequent addenda), and the Bidder’s Bid Submittal, any inconsistency or conflict shall be resolved as follows:

(i) First, by giving preference to the specific provisions of the Construction Contract.

(ii) Second, by giving preference to the specific provisions of the Bid Documents.
(iii) Third, by giving preference to the specific provisions of the Bidder’s Bid Submittal, except that objections or amendments by a Contractor that have not been explicitly accepted by the State Entity in writing shall not be included in this Contract and shall be given no weight or consideration.

3.2 Qualifications of Bidders:

To demonstrate qualifications for performing the Work, the Contractor must submit detailed written evidence such as financial data, previous experience, present commitments, references and other such data as may be called for below.

3.3 Subcontractors, Suppliers and Others:

Contractor shall submit a list of all Subcontractors, Suppliers and Consultants proposed for the Work. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualifications for each such Subcontractor, Supplier, and Consultant. This list shall be submitted with the Bid.

3.3.1 If after due investigation, the Owner has reasonable objection to any proposed Subcontractor, Supplier or Consultant, the Owner may, before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute, without an increase in Bid Price. If apparent Successful Bidder declines to make any such substitution, Owner may award the contract to another responsive and responsible Bidder that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. Any Subcontractor, Supplier or other party listed and to whom Owner does not make written objection prior to giving of the Notice of Award, will be deemed acceptable to Owner.

3.3.2 No Contractor shall be required to employ any Subcontractor, Supplier, other person or organization against whom Contractor has reasonable objection.

3.4 Examination of Bid Documents and Site: It is the responsibility of each Contractor, before submitting a Bid, to take the following measures, at a minimum:

3.4.1 To satisfy themselves by personal examination of the general, local, and site conditions of the proposed Work. A pre-bid site meeting will be held on Tuesday December 11 at 1:00 pm at:

JIA Administrative Offices
100 James Road
Jekyll Island, GA, 31527

3.4.2 To examine thoroughly the Form of Construction Contract and other related data identified in the Bid Documents including “technical” data referred to in subsequent sections.

3.4.3 To examine thoroughly the requirements of the Work and the accuracy of the estimate of the quantities of the Work to be done.

3.4.4 To consider governmental and local laws and regulations that may affect cost, progress, performance or furnishing of the Work.

3.4.5 To study and carefully correlate Bidders knowledge and observations with the Bid Documents and such other related data.

3.4.6 To promptly notify the Owner and Engineer of any and all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between the Bid Documents and any other related documents.

3.4.7 Owner and Engineer are not responsible for the accuracy or completeness of information and data shown or indicated in the Bid Documents with respect to existing utilities, buried structures, or
mechanical, electrical, or plumbing systems, or underground conduits or tunnels ("Systems"). The Contractor shall make every effort to locate other possible unknown utility lines and Systems and protect them. The Contractor will be held responsible for the workmanlike repair of any damage done to any Systems during work under this contract. The Contractor shall familiarize himself with the existing conditions and be prepared to adequately care for and safeguard himself and the Owner and Engineer from damage.

3.4.8 Before submitting a Bid, each Bidder shall be responsible for obtaining such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions at or contiguous to the site or otherwise, which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Bid Documents.

3.4.9 The project site is subject to unpredictable and potentially extreme environmental conditions, including impacts from tropical storm systems. The Bidder shall account for this to the extent practicable in their bid and will be required to submit a detailed Storm Preparedness and Management Plan prior to construction.

3.4.10 The submission of a Bid shall constitute an incontrovertible representation by Bidder that Bidder has complied with all requirements listed in this section, that without exception the Bid is premised upon performing and furnishing all Work required and implied by the Bid Documents and applying the specific means, methods, techniques, sequences or procedures of construction that may be shown or indicated or expressly required by the Bid Documents, that Bidder has given the Owner and Engineer written notice of any and all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in the Bid Documents and the written resolutions thereof by the Owner is acceptable to Bidder, and that the Bid Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

3.5 Interpretations and Addenda All questions about the meaning or intent of the Bidding Documents are to be directed to the Owner’s Representative via email.

Interpretations or clarifications considered necessary by the Owner or Engineer in response to such questions shall be issued by Addenda emailed to all parties recorded by the Engineer as having received the Bidding Documents. Questions received after the questions due deadline in Section 3.18 shall not be answered. Only questions answered by formal written Addenda shall be binding. Oral and other interpretations or clarifications shall be without legal effect. Addenda may also be issued electronically to modify the Bidding Documents as deemed advisable by the Engineer.

Questions shall be electronically submitted to:
Applied Technology & Management, Inc.
Attn: Monica Stevens
mstevens@appliedtm.com
(843) 414-1040

3.6 Submission of Bids:

Bids are due to the Owner in both hard copy and electronic (DVD or USB drive) format.

Bid Submission Location:

Jekyll Island Authority
100 James Road
Jekyll Island, GA 31527
Bids shall be opened and (unless obviously non-responsive) read privately at the place where Bids are to be submitted. The due date of bids shall be **Friday, January 4, 2019 by 5:00 pm**.

3.6.1 Respondents are cautioned to **assure actual delivery** of responses, either hand delivered or mailed via U. S. mail or overnight courier, directly to the place indicated above **prior to the deadline set for opening responses**. Responses delivered after the established deadline shall not be accepted. Responses submitted via e-mail only (i.e. – without a hardcopy) shall not be accepted.

3.6.2 In order for a Bid to be considered responsive, it must include the following specific elements, at a minimum:

- Completed Bid Form
- Executed Signature Page including Acknowledgement of Bid Addenda
- Statement of Qualifications
  - Experience List
  - Reference List
  - Contractor’s License
- List of Proposed Sub-contractors, Consultants, and Suppliers (including proposed rock source(s))
- Preliminary Work Plan & Schedule
- Proof of Ability to Bond the full amount of the work indicated in the Bid Form
- List of Proposed Sub-contractors, Consultants, and Suppliers (including proposed rock source(s))
- Preliminary Staffing Plan

3.7 **Basis of Bid:**

3.7.1 **Lump Sum, Unit Price, and Total Price**

Bidders shall submit a Bid on a lump sum basis for the items indicated by “Lump Sum” on the Bid Form, a unit price basis for the items in the bid form noted as such, and a total price basis for the Base Bid work.

The “Bid Price” for each unit price Bid item will be the product of the “Estimated Quantity” (which Owner or its representative has set forth in the Bid Form) for the item and the corresponding “Bid Unit Price” offered by the Bidder. The total of all unit price Bid items will be the sum of these “Bid Prices”; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance the terms of the General Conditions and as memorialized in the Construction Contract.

Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

3.7.2 **Allowances**

For cash allowances the Bid price shall include such amounts as the Bidder deems proper for Contractor’s overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with the terms of the General Conditions.
3.8 Modification and Withdrawal of Bid:

3.8.1 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

3.8.2 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 3.8.1 and submit a new Bid prior to the date and time for the opening of Bids.

3.8.3 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

3.9 Bids to Remain Subject to Acceptance:

All Bids shall remain subject to acceptance for ninety (90) days after the day of the Bid opening, but the Owner may, in its sole discretion, release any Bid, in writing, prior to that date.

3.10 Award of Contract:

The Owner reserves the right to reject any or all Bids including, without limitation, the right to reject any or all nonconforming, non-responsive, unbalanced or conditional Bids, and to reject the Bid of any Bidder if the Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standards or criteria established by the Owner. The Owner also reserves the right to reject the Bid of any vendor who has previously failed in the proper performance of an award or to deliver on time contracts of a similar nature or who is not in a position to properly perform under this award. The Owner reserves the right to inspect all facilities of Bidders in order to make a determination as to the foregoing. The Owner reserves the right to waive any irregularities and technicalities and may, at their discretion, request a re-bid.

3.10.1 The Owner also reserves the right to waive all informalities not involving price, time or changes in the Work, and to negotiate contract terms with the Successful Bidder. Discrepancies between the multiplication of units of Work and unit prices shall be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof shall be resolved in favor of the correct sum. Discrepancies between words and figures shall be resolved in favor of the words. The Owner reserves the right to adjust final quantities and/or remove specific bid line items altogether during negotiations at their discretion if it is deemed in the best interest of the Owner and the Project.

3.10.2 Upon opening of bids, the Owner shall determine whether or not the bids are responsive to the prescribed requirements of the Contract Documents. Thereafter, in evaluating responsive bids, the Owner shall consider the qualifications of Bidders, start dates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

3.10.3 The Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as prescribed in these Bid Documents. The Owner also may consider the operating costs, maintenance requirements, condition and performance data of equipment described in Bid submittal and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award. The Owner reserves the right to reject Bids, based upon the above-described informational submittals.
3.10.4 The Owner may conduct such investigations as the Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to the Owner’s satisfaction within the prescribed time.

3.10.5 If the Contract is to be awarded, the Contract shall be awarded to the Bidder with the Bid that provides the greatest value and is in the best interest of the Project. Owner shall evaluate bids based on the following general criteria:

- Quality and practicability of approach, with respect to materials used, methods of demolition, construction and installation
- Conformance with technical specifications and layout requirements
- Time encumbered in demolition, procuring materials and optimization of construction schedule
- Contractor experience with similar projects and history/reputation
- Cost

3.11 Signing of Construction Contract:

When the Owner gives a Notice of Award to the apparent Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Construction Contract with all other written Contract Documents attached. Within five (5) days thereafter the Successful Bidder shall sign and deliver the required number of counterparts of the Construction Contract and attached documents to Owner. Within five (5) days thereafter the Owner shall deliver one fully signed counterpart to the Successful Bidder.

3.12 Payment and Retainage:

Progress payments and final payment will be issued by the Owner to the Contractor in accordance with the Contract for Construction. Progress payments will be subject to a 10% retainage, the cumulative sum of which will be released with the final certification of payment at Final Completion as certified by the Engineer and with Owner’s consent, and upon receipt of all necessary lien waivers.

3.13 Liquidated Damages:

Upon failure of the Contractor to reach Owner Required Milestones, listed under paragraph 2.2 of this document, or an alternative schedule agreed upon in the formal contract, the Contractor shall pay the Owner the sum of $1,000 for each calendar day (plus allowable extensions) that is required by the Contractor to complete the work required for each milestone. Not as penalty or forfeiture, but as liquidated damages to the Owner.

3.14 Insurance Requirements:

No work shall commence until The Contractor obtains, at his own expense, insurance as will protect both the Owner and Contractor from any and all claims for personal injury, death, property damage, workmen’s compensation or other claims arising from performance of the Contract. Such insurance must be maintained for the duration of the work and have the approval of the Owner as to limit, form, and amount. The Contractor shall not permit any Sub-Contractor to commence work on this project until the same insurance requirements have been complied with by the Sub-Contractors.

3.14.1 Unless otherwise directed in writing by the Owner, the Contractor shall maintain the minimum insurance coverages identified in the Construction Contract Paragraph A-33 “Indemnification, Insurance, and Hazards”.

3.14.2 The Contractor shall carry on the work at his own risk and shall obtain and secure Builders Risk coverage for the full amount of the project. In case of any loss or damage occurring at the Project site...
3.14.3 A certificate from the Contractor’s insurance carrier, stating the amount and nature of the Contractor’s insurance coverage shall be delivered to the Owner prior to the Contractor commencing work on the project.

3.14.4 The Contractor shall procure a Performance and Payment Bond for the full value of the Project.

3.15 Confidentiality of Trade Secrets:

In accordance with Georgia law, the following shall apply to any trade secrets obtained from a person or business entity that are required by law, regulation, bid, or request for proposal to be submitted to the Owner. A Bidder submitting records containing trade secrets that wishes to keep such records confidential under this paragraph shall submit and attach to the records an affidavit affirmatively declaring that specific information in the records constitute trade secrets pursuant to Article 27 of Chapter 1 of Title 10 of the Official Code of Georgia Annotated (O.C.G.A.). If such Bidder attaches such an affidavit, before producing such records in response to a request under this article, the Owner shall notify the entity of its intention to produce such records as set forth in this paragraph. If the Owner makes a determination that the specifically identified information does not in fact constitute a trade secret, it shall notify the Bidder submitting the affidavit of its intent to disclose the information within ten days unless prohibited from doing so by an appropriate court order. In the event the Bidder wishes to prevent disclosure of the requested records, the Bidder may file an action in superior court to obtain an order that the requested records are trade secrets exempt from disclosure. The Bidder filing such action shall serve the requestor with a copy of its court filing. If the Owner makes a determination that the specifically identified information does constitute a trade secret, the Owner shall withhold the records, and the requester may file an action in superior court to obtain an order that the requested records are not trade secrets and are subject to disclosure.

3.15.1 Each Bidder is required to keep the contents of their Bid confidential once it is submitted until the award to the successful Bidder. Releasing any information regarding the Bid to third parties or the media prior to the conclusion of the selection process will be immediate grounds for the Owner to reject the Bid as non-responsive.

3.16 Indemnification:

By submitting a Bid, the successful Bidder hereby agrees to indemnify, defend and hold harmless the Owner, the State of Georgia and its departments, agencies and instrumentalities and all of their respective officers, members, employees and directors (hereinafter collectively referred to as the “Indemnitees”) from and against any and all claims, demands, liabilities, losses, costs or expenses, including attorneys’ fees, due to liability to a third party or parties, for any loss due to bodily injury (including death), personal injury, and property damage, including but not limited to intellectual property claims, arising directly or indirectly from the submission of the Bid hereunder by the Bidder or its agents, employees, associates, subcontractors or others working at the direction of Bidder. This indemnification obligation survives beyond the submission date of the Bid and the dissolution or, to the extent allowed by law, the bankruptcy of the Bidder. This indemnification applies where the Indemnitees are partially responsible for the situation giving rise to the claim, provided however, that this indemnification does not apply to the extent of the sole negligence of the Indemnitees.

3.17 Right to Protest/Proposal Challenges

3.17.1 Bidders to this RFP are required to respond at their own risk and expense. By responding to this RFP, Bidders acknowledge, understand and accept the Owner’s Reserved Rights set forth above.
3.17.2 Filing of protest

1. Subject of protest – Any Proposer may file a Protest on any phase of the solicitation, request for proposal, or award process, including but not limited to specifications, solicitation, contract language, evaluation criteria, or award.

2. When a protest is filed, it shall be made in writing to the Executive Director of the Owner and shall be filed in duplicate within 10 days after the Protestor knew or should have known of the facts giving rise thereto. Provided, however, that Protests concerning specifications, evaluation criteria, or other matters pertaining to the solicitation document shall be filed no later than five days prior to the Proposal Submission Deadline Date. A protest is considered filed when received by the Executive Director at the offices of the Owner. Protests which are not filed in a timely fashion as set forth above shall not be considered.

3. Form of Protest – All envelopes containing protests shall be labeled “PROTEST.” A written protest shall include as a minimum the following:
   a. The name and address of the Protestor.
   b. The signature of the Protestor or its representative. The Protestor must be authorized to act on behalf of the Proposer.
   c. Appropriate identification of the solicitation document, and if a contract has been awarded, its number.
   d. A statement of reasons for the protest.
   e. Supporting exhibits, evidence, or documents to substantiate any claims unless not available within the filing time; in which case the expected availability date shall be indicated. If a future expected availability date is given, the Protestor should supplement the Protest when the additional materials become available, and should indicate on the materials submitted that they are “supplemental” and also indicate whether the submission of the materials constitutes the final submission of materials for the Protest (unless requested to submit additional materials by the Executive Director or Owner). Provided, however, that the Executive Director shall not be prohibited from making a decision on a Protest prior to receipt of final Protest materials from the Protestor.
   f. The form of relief requested.

4. All protests should be mailed to the Executive Director or delivered by hand to the following address:

   Executive Director  
   Jekyll Island Authority  
   100 James Road  
   Jekyll Island, GA 31527

3.17.3 Stay of Procurement During Protest

When a Protest has been filed in a timely fashion and before an award has been made, the Owner shall make no award of a contract until a final decision has been issued, unless the Owner makes a written determination that the award of the contract without delay is necessary under the circumstances to protect the interests of the Owner.

3.17.4 Information on Protests

The Executive Director or the Owner shall, upon written request, make available to any interested party, information submitted that bears on the substance of the Protest except where such information is permitted or required to be withheld by law or regulation.
3.17.5 Decision on Protests

1. The Executive Director shall review all information submitted with the Protest, including any additional information requested from the Protestor, and shall issue a written decision on the protest as expeditiously as possible after receiving all relevant requested information.

2. Available remedies – If the Executive Director determines that the Protest is valid, the Executive Director shall determine the appropriate remedy. Available remedies include but are not limited to the following:

   • Modification of the solicitation document and extension of the solicitation period
   • Cancellation of the solicitation
   • Cancellation of the selection or award of contract

3.17.6 Appeal to the Owner

1. If a Protest is denied by the Executive Director or his or her designee, the Protestor may make an appeal to the Owner within 5 days after the denial by the Executive director or his or her designee.

2. No appeal will be considered if the Protestor has not first filed a Protest with the Executive Director and received a decision.

3. An appeal shall contain all information included in the original protest together with the decision of the Executive Director or his or her designee and all other information relevant to the basis for the appeal.

4. The envelope containing an appeal shall be marked “PROTEST APPEAL” and shall be mailed or hand delivered to the following address:

   Executive Director
   Jekyll Island Authority
   100 James Road
   Jekyll Island, GA  31527

5. While a Protestor may request a hearing before the Owner for an appeal, it shall be within the discretion of the Owner to determine if a hearing is granted.

6. The Owner shall have 30 days after an appeal is filed or a hearing is held whichever is later to decide on a protest appeal. This period may be extended for good cause for a reasonable time not to exceed 30 days, barring extraordinary circumstances justifying a longer extension, including, but not limited to, such events as hurricanes.

7. The Owner’s decision shall be in writing and shall be sent to the Protestor.

8. The decision of the Owner shall be final and no further appeal to the Owner will be allowed.

3.17.7 Costs

In no event shall a Protestor be entitled to recover any costs incurred relating to the protest of a solicitation, including bid or proposal preparation costs, protest preparation costs, or attorney fees.

3.17.8 Exclusive Remedy

This Procedure shall be the exclusive method for asserting a claim against the Owner arising out of or relating to any procurement conducted by the Owner.
3.18 Important Dates:

November 30, 2018 (Friday)          Bid Package Released
December 11, 2018 (Tuesday), 1:00 PM Pre-Bid Meeting
December 18, 2018 (Tuesday)         Questions Due
January 4, 2019 (Friday), 5:00 PM   Bids Due
January 17, 2019 (Thursday)         Issue Notice of Award*
January 30, 2019 (Wednesday)       Final Contracting and Notice to Proceed*
February 4, 2019 (Monday)           Estimated Construction Start Date*

*dates following Bid Due date are preliminary

END OF INSTRUCTIONS TO BIDDERS
JEKYLL ISLAND
PHASE 2 SHORELINE
REHABILITATION PROJECT

SECTION B

Bid Form
BID FORM

Jekyll Island - Phase 2 Shoreline Rehabilitation

December 3, 2018

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<tr>
<td>ARTICLE 9</td>
<td>Bid Submittal</td>
<td>7</td>
</tr>
</tbody>
</table>
ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Jekyll Island Authority
100 James Road
Jekyll Island, GA 31527

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

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

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<table>
<thead>
<tr>
<th>Addendum No.</th>
<th>Addendum, Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself 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 itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, 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; and (3) Bidder’s safety precautions and programs.

E. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

F. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
G. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

I. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER’S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.
**ARTICLE 5 – BASIS OF BID**

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

### A. Base Bid

**Area 1: Station +20+00 to Station +97+50 (Thorne Lane to Revetment Return Section)**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Bid Unit Price</th>
<th>Bid Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Performance Bond</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Mobilization</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Surveying, Testing, &amp; Environmental Compliance</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Limited clearing of vegetation/debris for sand placement</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Geotextile Separator (material, delivered and placed)</td>
<td>Square Feet</td>
<td>114,990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Terrace Berm Fill (+9.5' to +10') (material, delivered and placed)</td>
<td>Cubic Yards</td>
<td>95,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dune Fill (material, delivered and placed)</td>
<td>Cubic Yards</td>
<td>5,600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Sea Oats (Uniola Paniculata) (material, delivered and planted)</td>
<td>Plug</td>
<td>56,599</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Bitter Panicum (Panicum Amarum) (material, delivered and planted)</td>
<td>Plug</td>
<td>22,640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Saltmeadow Cordgrass (Spartina Patens) (material, delivered and planted)</td>
<td>Plug</td>
<td>33,960</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Sand Fencing (material, delivered and placed)</td>
<td>Linear Feet</td>
<td>4,550</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Dune-Rope Fencing (material, delivered and placed)</td>
<td>Linear Feet</td>
<td>5,840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Vibration Monitoring</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Demobilization, Site Restoration, and Project Closeout</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Base Bid Total**

### B. Bid Alternate #1

**Rock Revetment Return Section**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Bid Unit Price</th>
<th>Bid Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Base Stone (material, delivered and placed)</td>
<td>Tons</td>
<td>345</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Armor Stone (material, delivered and placed)</td>
<td>Tons</td>
<td>1,120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Geotextile Separator (material, delivered and placed)</td>
<td>Square Feet</td>
<td>5,525</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bid Alternate #1 Total**
### C. Bid Alternate #2

Area 2: Station -44+00 to Station +20+00 (South end of project to Thorne Lane)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Bid Unit Price</th>
<th>Bid Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Geotextile Fabric Separator (material, delivered and placed)</td>
<td>Square Feet</td>
<td>11,520</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Terrace Berm Fill (+9.5' to +10') (material, delivered and placed)</td>
<td>Cubic Yards</td>
<td>7,750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Dune Fill (material, delivered and placed)</td>
<td>Cubic Yards</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sea Oats (Uniola Paniculata) (material, delivered and planted)</td>
<td>Plug</td>
<td>22,097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Bitter Panicum (Panicum Amarum) (material, delivered and planted)</td>
<td>Plug</td>
<td>8,839</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Saltmeadow Cordgrass (Spartina Patens) (material, delivered and planted)</td>
<td>Plug</td>
<td>13,259</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Sand Fencing (material, delivered and placed)</td>
<td>Linear Feet</td>
<td>840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Surveying, Testing, &amp; Environmental Compliance</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Vibration Monitoring</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bid Alternate #2 Total**

### D. Bid Alternate #3

Area 3: Station +97+50 to Station +107+00 (Revetment Return Section to north end of project)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Bid Unit Price</th>
<th>Bid Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Limited clearing of vegetation/debris for sand placement</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Beach/Dune Fill (material, delivered and placed)</td>
<td>Cubic Yards</td>
<td>8,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sea Oats (Uniola Paniculata) (material, delivered and planted)</td>
<td>Plug</td>
<td>8,363</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Bitter Panicum (Panicum Amarum) (material, delivered and planted)</td>
<td>Plug</td>
<td>3,345</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Saltmeadow Cordgrass (Spartina Patens) (material, delivered and planted)</td>
<td>Plug</td>
<td>5,018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sand Fencing (material, delivered and placed)</td>
<td>Linear Feet</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dune-Rope Fencing (material, delivered and placed)</td>
<td>Linear Feet</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Geotextile Tube (complete) - assumed fill sand provided on-site</td>
<td>Linear Feet</td>
<td>150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Surveying, Testing, &amp; Environmental Compliance</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Vibration Monitoring</td>
<td>Lump Sum</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bid Alternate #3 Total**
E. Bid Alternate #4
Fill Placement Using Alternate Sand Source

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Bid Unit Price</th>
<th>Bid Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Area 1 Beach/Dune Fill (material, delivered and placed) - Alternate Sand Source</td>
<td>Cubic Yards</td>
<td>101,300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Area 2 Beach/Dune Fill (material, delivered and placed) - Alternate Sand Source</td>
<td>Cubic Yards</td>
<td>8,250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Area 3 Beach/Dune Fill (material, delivered and placed) - Alternate Sand Source</td>
<td>Cubic Yards</td>
<td>8,900</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bid Alternate #4 Total

F. Unit Price Bid Items

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Bid Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contractor Standby Time if required by Owner or USACE during Borrow Area Excavation/Construction</td>
<td>Day</td>
<td>Each</td>
<td></td>
</tr>
</tbody>
</table>

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents. See Paragraph 5.02 for additional quantity information. Contractor shall confirm all required quantities.

Total Base Bid Price $ 

Total Bid (Includes Base and All Alternates) $ 

5.02 Geotextile separator quantities are estimated based on roll width of 12' and length of berm fill sections and include a 20% contingency for loose placement and overlaps. Armor stone quantities are estimated based on 40% voids and 165 pcf. quantities are estimated based on 25% voids and 165 pcf. Beach and dune fill quantities indicate in-place volumes.

5.03 Pending questions and information from potential Bidders, Owner reserves the right to provide Bid Addendum.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with the Agreement on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:
   A. Required Bid security;
   B. List of Proposed Subcontractors;
C. List of Proposed Suppliers;
D. List of Project References;
E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
F. Contractor’s License Number or Evidence of Bidder’s ability to obtain a State Contractor’s License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
G. Required Bidder Qualification Statement with supporting data;
H. List of Equipment; and
I. Work Plan, including proposed methods and schedule.
J. Current copy of IRS Form W9
K. Current certificate of insurance

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the Agreement, and any associated Conditions.
ARTICLE 9 – BID SUBMITTAL

BIDDER: [Indicate correct name of bidding entity]

__________________________________________________________

By:  
[Signature]  
[Printed name]  
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:  
[Signature]  
[Printed name]

Title:  

Submittal Date:  

Address for giving notices:

__________________________________________________________

__________________________________________________________

Telephone Number:  

Fax Number:  

Contact Name and e-mail address:  

Bidder’s License No.:  
(where applicable)
J EKYLL ISLAND
PHASE 2 SHORELINE
REHABILITATION PROJECT

SECTION C

FORM OF CONSTRUCTION CONTRACT
CONSTRUCTION CONTRACT

THIS AGREEMENT is made the day of Month, Year by and between the Jekyll Island – State Park Authority, an instrumentality of the State of Georgia and a public corporation, having an address at 100 James Road, Jekyll Island, Georgia 31527, (hereinafter, called the “Owner”), and (Contractor Name), a corporation duly authorized by law to transact business in the State of Georgia (hereinafter, called the “Contractor”), whose mailing address is (Contractor Address).

WITNESSETH:

WHEREAS, Owner has issued a request for bids for the Jekyll Island Phase 2 Shoreline Rehabilitation Project (“Project”) and prepared drawings, plans, specifications and/or addenda describing certain construction work it requires for such Project, the originals of which are on file and of record in the owner’s offices, and are, by this reference, specifically incorporated herein; and

WHEREAS, Contractor, having reviewed the request for bids for the Project and obtained an exact copy of said drawings, plans, specifications and/or addenda, has submitted the bid for such work that is the most beneficial to Owner and the State of Georgia.

NOW, THEREFORE, the Owner and the Contractor in consideration of the mutual promises and benefits flowing to the parties hereto as hereinafter stated, agree as follows:

1. SCOPE OF WORK. The Contractor shall furnish all labor, materials, tools and equipment to perform all the Work shown on the drawings and called for in the specifications entitled Jekyll Island Phase 2 Shoreline Rehabilitation, as prepared by Applied Technology & Management, Inc., who is referred to in the Contract Documents as the Design Professional or Engineer. It is the intent and it is hereby agreed that the Contractor shall perform all work covered by this Contract and the Contract Documents.

2. MATERIAL COMPLETION DATE. This Contract shall be commenced within ten (10) days after proceed order is issued by the Owner and Material Completion shall be achieved in days from and including the date of the proceed order, time being of the essence.

3. CONTRACT SUM. The Owner shall pay the Contractor the sum of (Bid Amount - written and numeric) subject to adjustment by additive or deductive Change Orders.

4. PROGRESS PAYMENTS. The Owner shall make progress payments on account of the contract on or about the 15th day of each month as stated in Article A-58 of the General Conditions.

5. FINAL PAYMENT.
   (a) Final payment under this Contract will be due to the Contractor thirty (30) days after the issuance of the Certificate of Material Completion or its equivalent by the Design Professional and/or Owner. The Contractor agrees that before applying for final payment, he will furnish to the Owner the Statutory Affidavit, and the warranties and guarantees called for in the specifications.

   (b) Upon receipt of written notice from the Contractor pursuant to Article A-66 of the General Conditions that the work is ready for final inspection, the Design Professional, Owner, and/or Owner’s Representative shall promptly make such inspection, and when he finds the work complies with the contract and when the contract shall have been fully performed he shall promptly issue a Certificate of Material Completion, over his own signature, stating that the work provided for in this contract has been completed under the terms and conditions thereof, and that the entire balance found to be due the Contractor, and noted in said final certificate, is due and payable.

   (c) Before issuance of Certificate of Material Completion, the Contractor shall submit evidence satisfactory to the Design Professional and/or Owner that all payrolls, material bills, and other indebtedness connected with the work have been paid.
(d) If full completion of the work is materially delayed through no fault of the Contractor, and, if necessary, the Design Professional so certifies, the Owner shall, upon certificate of the Design Professional, if needed, and without terminating the contract, make payment of the balance due for that portion of the work fully completed. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

6. **THE CONTRACT DOCUMENTS.** The Contract Documents which form the basis of this Contract shall be the plans and specifications as enumerated below, together with any other documents so listed and enumerated, and it is expressly understood that these documents are specifically made a part of this Contract.

(a) Instructions to Bidders  
(b) Bid Form  
(c) General Conditions  
(d) Supplementary Conditions  
(e) Bid Drawings  
(f) Technical Specifications  
(g) Project Regulatory Permits

7. **NOTICES.** All notices shall be given to the following addresses:

**CONTRACTOR:**
{Insert Name of Firm}  
{Insert Mailing Address}  
{Insert City, State, Zip}  
Attention:

**OWNER:**
Jekyll Island - State Park Authority  
100 James Road  
Jekyll Island, Georgia 31527  
Attention: Ben Carswell

**DESIGN PROFESSIONAL/ ENGINEER:**  
Applied Technology & Management, Inc.  
411 Pablo Avenue  
Jacksonville Beach, Florida 32250  
Attention: Heath Hansell, PE

8. **ENERGY EFFICIENCY AND SUSTAINABLE CONSTRUCTION ACT OF 2008.** This project is not subject to the Energy Efficiency and Sustainable Construction Act of 2008 ("Energy Act"). Projects subject to the Energy Act require commissioning, water-use reduction, and use of not less than 10% of Georgia products.

9. **LIQUIDATED DAMAGES.** The agreed daily amount for Liquidated Damages is: $1,000.00 per day.

10. **VENUE AND JURISDICTION.** This Agreement and all rights, privileges and responsibilities shall be interpreted and construed according to the laws of the State of Georgia. Any lawsuit or other action based on claims arising from this Contract shall be brought in a court or the forum of competent jurisdiction in Fulton County, in the State of Georgia.

11. **NO CONFLICTS OF INTEREST.** The Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance required under this Agreement. The Contractor further covenants that in the performance of this Agreement, no person having any such interest shall be employed or contracted with.

12. **PROHIBITED TRANSACTIONS.** The parties hereto certify that the provisions of law contained in the Act prohibiting full-time appointive officials and employees of the State from engaging in certain
transactions affecting the State, as defined in O.C.G.A. §§ 45-10-20 through 45-10-26, have not and will not be violated in any respect in regard to this Agreement.

13. **NO ASSIGNMENT.** This Agreement and the proceeds of this Agreement may not be assigned nor may the performance thereunder be assigned, except with the prior written consent of the Owner.

14. **NO WAIVER.** The failure of the Owner at any time to require performance by the Contractor of any provision hereof, shall in no way affect the right of the Owner thereafter to enforce any provision or any part of the Contract, nor shall the failure of the Owner to enforce any breach of any provision hereof to be taken or held to be a waiver of such provision, or as a waiver, modification or recession of the Contract itself.

15. **NON-PROFIT CONTRACTORS.** If the Contractor is a nonprofit Contractor as defined in Section 50-20-2 of the O.C.G.A., then the Contractor agrees to comply with the provision of said Act, and in particular requirements of Section 3 thereof, and with such further instructions and requirements as the State of Georgia may subsequently require in the implementation of said Act.

16. **ILLEGAL IMMIGRATION REFORM AND ENFORCEMENT ACT OF 2011.** Contractor certifies its compliance with Illegal Immigration Reform and Enforcement Act of 2011 and specifically those provisions codified at O.C.G.A. §13-10-90 et. seq. Contractor warrants that it has registered with and uses the federal work authorization program commonly known as “E-Verify.” Contractor further agrees that it will contract for the physical performance of services in satisfaction of this contract only with subcontractors who present an affidavit as required by O.C.G.A. §13-10-91. Contractor warrants that it will include a similar provision in all contracts entered into with subcontractors for the physical performance of services in satisfaction of this contract.

17. **REQUIREMENT FOR WRITTEN AMENDMENT.** No amendment to this Contract shall be effective unless it is in writing and signed by duly authorized representatives of the parties. No representation, request, instruction, directive or order, made or given by any official of any agency of the Owner or the State of Georgia, whether verbal or written shall be effective to amend this contract or excuse or modify performance hereunder unless reduced to a formal amendment and executed as set forth above. Contractor shall not be entitled to additional compensation, delay in performance, or other benefit claimed for relying upon or responding to any such representation, request, instruction, directive, or order.

18. **ENTIRE AGREEMENT.** This Contract, including all documents incorporated herein, constitutes the entire agreement between the parties with respect to the subject matter; hereby superseding all other prior and contemporaneous agreements, representations, statements, negotiations, and undertakings whether oral or written.

THE PERSON SIGNING ON BEHALF OF EACH PARTY REPRESENTS THAT SUCH PERSON IS DULY AUTHORIZED AND FULLY EMPOWERED TO ENTER INTO THIS CONTRACT ON BEHALF OF SUCH PARTY. EACH PARTY WARRANTS THAT SUCH PARTY HAS FULL POWER AND AUTHORITY TO ENTER INTO AND PERFORM THIS CONTRACT. THE PARTIES HERETO ACKNOWLEDGE THAT THEY HAVE READ AND UNDERSTAND THIS CONTRACT, AND AGREE TO BE BOUND BY ALL TERMS AND CONDITIONS OF THIS CONTRACT, AS INDICATED BY THE SIGNATURES OF THEIR DULY AUTHORIZED REPRESENTATIVES SET OUT BELOW.

EXECUTED AS OF THE DAY AND YEAR FIRST WRITTEN ABOVE

(signatures contained on following page)
JEKYLL ISLAND - STATE PARK AUTHORITY

Printed Name: __________________________
Title: _________________________________
By: _________________________________
(Signature)

CONTRACTOR

Printed Name: __________________________
Title: _________________________________
By: _________________________________
(Signature)
SECTION A
GENERAL CONDITIONS

A-01. General Conditions. The General Conditions of the Contract, Provisions A-01 thru A-78, shall govern in the event of any conflict with any other provisions of the Contract Documents unless notice to the contrary shall have been issued by the Owner. In the event of conflict, the Supplementary General Conditions control over the General Conditions and the Contract controls over the Supplementary and General Conditions. The Design Professional has no authority to amend the General Conditions, orally or in writing, either expressly or by implication.

A-02. Legal Compliance. The Contractor shall comply with all laws, rules, regulations, ordinances, and orders of any government agency having jurisdiction in the performance of the work and shall ensure the compliance of his subcontractors. Without limiting the generality of the foregoing, the following laws are specifically referenced:

b) Preference for Georgia Supplies, materials, equipment, and agricultural products, O.C.G.A. §§ 50-5-60 through 61.
c) Preference for Georgia forest products, O.C.G.A. § 50-5-63.
e) Standards and Requirements for Construction, Alterations, etc., O.C.G.A. § 8-2-1 et. seq.
f) Control of Soil Erosion and Sedimentation, O.C.G.A. § 12-7-1, et. seq.
g) Regulation of Fire and other Hazards, O.C.G.A. § 25-2-1 et. seq.
h) Regulation of Blasting Operations, O.C.G.A. § 25-2-1 et. seq. and § 25-9-1 et. seq.
i) Providing Safe workplace, O.C.G.A. § 34-2-10 and § 34-7-20.
k) High Voltage Safety Act, O.C.G.A. § 46-3-30 et. seq.
l) Access and Use by Physically Handicapped Persons, O.C.G.A. § 30-3-1 et. seq.
n) Trading with the State or State Officials, O.C.G.A. §§ 45-10-20 to 45-10-71.
v) Scaffolding and Staging Statute, O.C.G.A. § 34-1-1 et seq.
w) Department of Labor Rules and Regulations, O.C.G.A. § 34-2-6 et seq.
x) Hazardous Chemical Protection and Right to Know Act, O.C.G.A. § 45-22-2 et. seq.

A-03. Third Party Beneficiaries. Contractor acknowledges, stipulates and agrees that the Owner is a public authority of the executive branch of the government of the State of Georgia performing an essential public and governmental function by means of the Contract. Failure of Contractor to comply with this Contract may cause general or special or consequential damages to the Owner or to officers, agencies, commissions, departments, instrumentalities or other entities of the State of Georgia, which will occupy the completed work or which provide governmental services or supplies to them. By way of illustration and not limitation, breach or repudiation of the Contract may cause the need to crowd other premises, to extend occupancies of other premises or to occupy unsatisfactory premises. Contractor shall be liable for damages under this Contract not only to

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Owner but also to, and as third party beneficiaries of its Contract, the State of Georgia, or to any officer, agency, commission, department, instrumentality or entity of the State of Georgia, which is to occupy the work or which performs a governmental function for the same and whose costs or burden is increased by a breach in the Contract. This Contract contemplates general and special or consequential damages not only to Owner but to such third party beneficiaries (“State beneficiaries”). Liability to third party beneficiaries shall be without regard to whether Owner has breached any duty of its own to third party beneficiaries, and neither Contractor nor its surety shall have any right of subrogation against Owner or the State or other third party beneficiaries.

A-04. **Liquidated Damages.** Time being of the essence of this contract, and a material consideration thereof, it is mutually agreed by the parties hereto in case of the Contractor’s failure to complete the construction within the time specified, the Owner will be damaged thereby. The Contractor shall commence performance of its activities on the site under this Contract as specified by the date of the Proceed Order. The Contractor shall complete construction not later than the Material Completion Date shown in the Contract, except as adjusted by change order. The Owner and Contractor hereby agree that the amount of such damages shall be the daily rate specified in the contract, beginning upon the contractually required Material Completion Date and ending on the date that the certificate of material completion is issued. The parties agree that the specified Liquidated Damages are not established as a penalty but are calculated and agreed upon in advance as a fair and equitable amount reasonably estimated in advance to cover losses to be incurred by the Owner for such delay or interruption.

A-05. **Immigration Reform Compliance.** Contractor certifies its compliance with Illegal Immigration Reform and Enforcement Act of 2011 and specifically those provisions codified at O.C.G.A. §13-10-90 et. seq. Contractor warrants that it has registered with and uses the federal work authorization program commonly known as “E-Verify.” Contractor further agrees that it will contract for the physical performance of services in satisfaction of this contract only with subcontractors who present an affidavit as required by O.C.G.A. §13-10-91. Contractor warrants that it will include a similar provision in all contracts entered into with subcontractors for the physical performance of services in satisfaction of this contract.

A-06. **Definitions**

a. **Applicable Law.** This contract shall be governed by the law of Georgia.

b. **Article Not Plenary.** This article is not entire, plenary, or exhaustive of all terms used in the General Conditions which require definition. There are definitions of other terms under articles to which the terms are related.

c. **Certificate for Material Completion –** The notice from the Design Professional to the Owner certifying Contractor’s achievement of Material Completion and providing for the Owner’s authorization to take possession of the Project.

d. **Change Order Form.** The change order form is the instrument by which adjustments in the contract sum are effected.

e. **Change Order Sum.** The amount of compensation payable under a Change Order or, when applicable, a portion thereof.

f. **Claim.** A demand or assertion by Contractor seeking an adjustment of the Contract Sum, Contract Time, or both, or regarding other disputes or requests by Contractor for relief arising out of or relating to the terms of the Contract or Contract Documents.

g. **Contract.** The written document that is the evidence of the Contract between the Owner and the Contractor.
h. Contract Documents. The Contract Documents include the executed Contract, the Instructions to Bidders; Bid Form, General Conditions (including Forms and Exhibits), Supplementary General Conditions (if any), Drawings, Specifications, Addenda and fully executed Change Orders.

i. Contract Sum. The sum of all compensation authorized by the Contract and any Change Orders.


k. Contractor. The person or entity who executes the Contract and thereby assumes responsibility for the proper completion of the activities described in the Contract Documents.

l. Cross-reference and Citations of Articles and Paragraphs of the General Conditions. Cross-references and citations of articles and paragraphs of the General Conditions are for the convenience of the Contractor, Design Professional and the Owner and are not intended to be plenary or exhaustive nor are they to be considered in interpreting the Contract Documents or any part of the Contract Documents.

m. Days. All references to a number of days shall mean calendar days unless otherwise noted.

n. Design Professional. The architect or engineer or architectural or engineering firm selected by the Owner (i) for the design and preparation of Contract Documents governing the construction of a Project, or (ii) for construction contract administration under the Contract Documents, or (iii) for both, all such services and the scope thereof to be set forth in the Design Professional Contract. The Design Professional is not an employee of the Owner but is engaged or retained by it for the purpose of performing design and/or construction administration services for the project. The term “Design Professional” includes architects, engineers, surveyors, designers, and other consultants retained by the Design Professional. In the absence of a Project Design Professional, specifically retained by the Owner to perform design services for this project, the term Design Professional appearing in these documents shall mean Owner or Owner’s Representative.

o. Grounds for Issuance of Notice of Declaration of Default. It shall be a sufficient ground for the issuance of a notice of declaration of default that the Contractor has been unfaithful or delinquent in the performance of the contract or any part of it in any respect. Without limitation of the foregoing and without subtracting from any right or defense of the Owner under other provisions of the Contract Documents, the Contractor acknowledges and agrees that it is ipso facto ground for issuance of a notice of declaration of default under the performance bond if the Contractor shall have neglected or failed for any reason to remedy a breach of a notice of non-complaint work within thirty (30) days after the Owner shall have given written notice of said breach to the Contractor and the surety on the performance bond with written demand of the Owner for curing of the delinquency. The Design Professional does not have authority to declare the Contractor in default.

p. Install, Deliver, Furnish, Supply, Provide and Other Such Words. Such words mean the work in question shall be put in place by the Contractor ready for use unless expressly provided to the contrary.

q. Meaning of Words and Phrases. Unless the context or the Contract Documents taken as a whole indicate to the contrary, words used in the Contract Documents that have usual and common meanings shall be given their usual and common meanings and words having technical or trade meanings shall be given their customary meaning in the subject business, trade or profession.
r. Notice of Non-Complaint Work. A notice of non-complaint work shall be in writing, shall be dated, shall be signed by the Design Professional or Owner, shall be addressed to the Contractor with a copy to the Owner, and shall contain three elements as follows:

FIRST ELEMENT: Description of work:

1. which has been omitted; or
2. which is unexecuted as of the date of the notice of non-compliant work, the time for its incorporation into the work under the construction progress schedule having expired; or
3. which has not been executed in accordance with the methods and materials designated in the Contract Documents.

SECOND ELEMENT: Citation of the provision or provisions of the Contract Documents that has or have been violated.

THIRD ELEMENT: Fixing of a reasonable space of time within which the Contractor shall have made good the deficiency which said space of time shall not be deemed to be an extension of contract time for filing the Notice of Readiness for Final Inspection nor shall it be deemed to be authorization for amendment to the construction progress schedule.

A notice of non-compliant work may be issued for failure of the Contractor to supply enough workmen or enough materials or proper materials.

s. Notices. Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.

t. Owner. The State of Georgia, by and through the Jekyll Island – State Park Authority, identified as such in the Contract with whom the Contractor has entered into the contract and for whom the work is to be completed.

u. Parties. The Owner, the Contractor and the Design Professional are those mentioned as such in the contract. They are treated throughout the Contract Documents as if each were of the singular number and masculine gender.

v. Proceed Order. The proceed order is a written notice from the Owner pursuant to which the Contractor shall commence physical work on the site. A proceed order is a condition precedent to the execution of any work on the site by the Contractor.

w. Shop Drawings. Shop drawings are drawings, schedules, data, catalogue cuts, manufacturers’ published recommendations, charts, bulletins, brochures, illustrations, circulars, roughing drawings or formulae distributed by contractors, subcontractors, manufacturers, materialmen, or suppliers for use in installing work.

x. Specifications. The term “Specifications” shall include all written matter in the Project Manual or on the drawings and any addenda or modifications thereto.

y. Stipulated Maximum Sum. The amount stated in a Force Account Change Order as the maximum amount payable for Work thereunder.

z. Subcontractor. The term subcontractor as employed herein includes only those having direct contract with the Contractor. It includes one who furnishes materials worked to a special design according to the plans and specifications of this work but does not include one who merely furnished materials not so worked.
aa. Supplier. A manufacturer, fabricator, distributor, supplier, or vendor of goods or equipment in connection with the Work, or any other party having a Contract or Purchase Order with the Contractor or with a subcontractor to furnish materials or equipment to be incorporated in the Work by the Contractor or a subcontractor.

bb. Time Limits. All time limits stated in the Contract Documents or shown on the construction progress schedule are of the essence of the contract.

c. Work. The term “work” of the Contractor or subcontractor includes labor or materials or both.

d. Work Order. A work order is a written notice from the Owner issued separately to the Contractor for each subcontractor. A work order is a condition precedent to the execution of any work on the site by a subcontractor.

A-07. Forms and Specimens. - The forms and specimens attached as exhibits are incorporated by reference herein and shall be executed in substantial conformance for proper completion of the Contract.

A-08. Pre-construction Meeting. Refer to Section 1.16, General Project Requirements in the Technical Specifications.

A-09. Copies of Notices to Owner. Wherever the General Conditions provide that a copy of any notice, request, or demand filed with the Design Professional by the Contractor shall be furnished to the Owner, such notice, request or demand shall not become effective until the Owner’s copy shall have been received by the Owner. No notice in writing or orally to the Design Professional or to the Owner’s Representative is notice to the Owner unless copy of the aforesaid notice in writing shall have been properly served upon the Owner at the address shown in the Contract.

A-10. Contractor’s Warranty as to Performance. The Contractor warrants that he is familiar with the codes applicable to the work and that he has the skill, knowledge, competence, organization, and plant to execute the work promptly and efficiently in compliance with the requirements of the Contract Documents. The Contractor, having the obligation to keep a competent superintendent on the work during its progress, to employ only skilled mechanics, and to enforce strict discipline and good order among his employees, the Contractor, himself, is responsible for seeing that the work is installed in accordance with the Contract Documents. The Contractor warrants to the Owner that all materials and equipment incorporated in the Work will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements may be considered defective.

A-11. Mutual Responsibility of Contractors. Should the Contractor cause damage to any separate Contractor on the work the Contractor agrees, upon due notice, to settle with such Contractor by agreement if he will so settle. If such separate Contractor sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor who shall defend such proceedings at his own expense, and if any judgment against the Owner shall arise therefrom, the Contractor shall pay or satisfy it and pay all costs incurred by the Owner.

A-12. Shop Drawings. The Contractor shall review, approve and submit to the Design Professional or Owner all Shop Drawings, Product Data and Samples required by the Contract Documents for approval. The Work shall be in accordance with approved submittals.


A-14. Samples. The Contractor shall furnish for approval all samples as directed. The work shall be in accordance with approved samples.
A-15. **Materials, Appliances, and Employees**

a. Payment for. Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the proper execution and completion of the work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

b. Quality of Materials and Workmanship. Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of the quality required by the specifications. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials and work. The burden of proof is on the Contractor.

c. Quality and Discipline of Employees. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

A-16. **Design Professional**

a. Role. Should the work require the services of a Design Professional, the Design Professional shall not at any time supervise, direct, control, or have authority over any contractor work, nor shall Design Professional have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the Site, nor for any failure of any contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work. Design Professional neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the Work in accordance with the Contract Documents. Design Professional shall not be responsible for the acts or omissions of any Contractor, Subcontractor, or Supplier, or of any of their agents or employees or of any other persons (except Design Professional's own agents, employees, and Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made regarding the Contract Documents, or any application, interpretation, or clarification, of the Contract Documents, other than those made by Design Professional. He is the agent of the Owner only when in special instances he is authorized in writing by the Owner so to act, and in such instances he shall, upon request, show the Contractor written authority. He has authority to stop the work whenever such stoppage may be necessary to ensure the proper execution of the contract.

b. Interpreter and Impartial Judge. As the Design Professional is, in the first instance, the interpreter of the conditions of the contract and the judge of its performance, he shall side neither with the Owner nor with the Contractor but shall use his powers under the contract to enforce its faithful performance by both.

A-17. **Design Professional's Decisions**

a. Promptness. The Design Professional shall make decisions with reasonable promptness after presentation of evidence on (1) any claim of the Owner or Contractor, (2) a demand of the Owner or Contractor for a decision on any matter relating to the execution or progress of the work, or (3) a demand of the Contractor or Owner for interpretation of or additional instructions with respect to the Contract Documents.

b. On Artistic Effect. The Design Professional's decisions in matters relating to artistic effect shall be final if within the terms of the Contract Documents.

A-18. **Testing Services.** If necessary, laboratories for testing services shall be obtained as set forth in the Technical Specifications, or as otherwise directed by the Design Professional.

A-20. Protection of Work and Property

a. Duty to Protect Property. The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect all other property from damage, injury, or loss arising in connection with the work regardless of who may be the Owner of said property. He shall make good any such damage, injury, or loss except such as may be directly the result of errors in the Contract Documents or such as shall be caused directly by agents or employees of the Owner.

b. Safety Precautions. The Contractor shall comply with the rules and regulations of OSHA and/or the Department of Labor (O.C.G.A. section 34-2-6), and, where not inconsistent with the foregoing, the “Manual of Accident Prevention in Construction” issued by the Associated General Contractors of America, Inc., for safety and prevention of accidents, and shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work arising out of and in the course of employment on work under the contract. The Contractor alone shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage that may result from their improper construction, maintenance, or operations. He shall erect and properly maintain at all times as required by the conditions and progress of the work proper safeguards for the protection of workmen and the public and shall post danger warnings against any hazards created by the construction operations. He shall designate a responsible member of his organization on the work whose duty shall be the prevention of accidents. In the absence of notice to the contrary, filed with the Design Professional in writing with copy to the Owner, this person shall be the superintendent of the Contractor.

c. Emergencies. In an emergency affecting the safety of life or the work or of adjoining property, the Contractor, without special instruction or authorization from the Design Professional or Owner, shall act, at his discretion, to prevent such threatened loss or injury. Any remuneration claimed by the Contractor on account of emergency work shall be determined in accordance with allowances permitted under Sections A-49 or A-58 of these General Conditions, as applicable.

d. Fire Prevention.

1. Contractor shall take adequate and reasonable precautions to protect work against damage by fire and smoke. For example, without limitation, Contractor shall:

   a. Provide fire extinguishers in readily accessible locations.

   b. Periodically inspect fire extinguishers, remove discharged extinguishers immediately and replace with new or recharged extinguishers.

   c. Keep one fire extinguisher within five (5) feet of any welding or open flame operations.

   d. Remove oil-soaked and paint-soaked materials, including paper and rags, from building(s) daily, and more frequently as necessary, to eliminate danger of fire.

   e. Not permit workmen to smoke inside building(s) or during operations involving combustible adhesives, solvents, mastics, or other fire hazard materials.
e. Environmental Protection. The Contractor shall provide all work to prevent unacceptable adverse environmental impacts, pollution and damage as a result of construction operations as set forth in the Environmental Protection section of the Technical Specifications.

A-21. Notices. Any notice, demand, consent, approval, change order, or other material communication required or permitted to be given under this Contract shall be in writing and signed by an officer or duly authorized representative of the Contractor, and shall be addressed as shown in paragraph 7 of the Contract. Prior to any shut-down of any system (electrical, mechanical, etc.), Contractor shall supply not less than five (5) working days’ notice to the Design Professional and/or the Owner. No shutdown of any system shall occur until the Contractor has received permission from the Owner in writing.

A-22. Working Hours. The Contractor shall perform all work, make all deliveries and have access to work areas during daylight hours seven (7) days a week. Upon written permission of the Owner, Contractor may make deliveries and have access to work areas at any hour of any day, but shall bear without any contribution from the Owner, any extra expense and responsibility for doing so, including, without limitation, its own overtime expense. Contractor’s promise to perform the work under the contract within the maximum time stated is not dependent on the availability of the working area for hours other than identified hereinabove.

A-23. Reserved.


A-25. Hazardous Material. A Hazardous Material is any substance or material identified as of the date of the Agreement as hazardous under any governmental law, rule, or regulation, or otherwise subject to governmental requirements concerning handling, disposal, and/or cleanup. Except for hazardous materials specifically identified to be remediated by the Contract Documents or Change Order, the Contractor shall not be required to perform any work related to hazardous materials encountered at the Site. The Contractor is fully responsible for any Hazardous Materials brought on the Site by any party, other than the Owner, who has a contractual relationship with the Contractor to perform Work under the Contract Documents. If the Contractor knows of the presence of hazardous materials in any form existing on or delivered to the Site, the Contractor shall immediately notify the Design Professional and the Owner as to the quantity and nature of the hazardous material.

A-26. Utilities. The Contractor shall make connection to utilities at locations agreeable to the Owner. The Contractor shall pay all costs for connections and extending these to the area where it proposes to use them and usage.

A-27. Royalties and Patents. The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall hold the Owner harmless from loss on account thereof.

A-28. Permits and Regulations

a. General. Permits and licenses of a temporary nature necessary for the prosecution of the work shall be obtained and paid for by the Contractor unless otherwise specified. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be obtained and paid for by the Owner unless otherwise specified. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work. If the Contractor observes that the drawings or specifications are at variance therewith, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted as provided in the contract for changes in the work. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules or regulations without such notice to the Owner, he shall bear all costs arising therefrom.
A-29. **Assignment.** The Contractor shall not assign the contract or sublet it as a whole nor shall the Contractor assign any moneys due or to become due to him hereunder. Contractors may subcontract portions of the Work, normally performed by subcontractors.

A-30. **Separate Contracts.** The Owner reserves the right to perform work related to the Project with its own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar conditions of the Contract. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly regulate, schedule, connect, and coordinate his work with theirs.

A-31. **Use of Premises.** The Contractor shall confine his plant, his apparatus, the staging and storage of materials, the operations of his forces, and the work to limits indicated by law, ordinances, permits, or the Contract Documents and shall not unreasonably encumber the premises with his materials. The Contractor shall not load or permit any part of the work to be loaded with weight that will endanger its safety. The Contractor shall enforce the Design Professional’s and/or Owner’s instructions regarding signs, advertisements, fires and smoking.

A-32. **Bonds.**

a. **Performance Bond and Payment Bond.** The Contractor shall furnish both a performance bond and a payment bond and said bonds shall be provided on the forms as set forth in Exhibit C and Exhibit D.

b. **Required Qualifications for Surety.** The Contract provides that the surety and insurance companies must be acceptable to the Owner. Only those sureties listed in the Department of Treasury's Listing of Approved Sureties (Department Circular 570) are acceptable to the Owner. All bonds at the time of issuance must be issued by a company authorized by the Insurance Commissioner to transact the business of suretyship in the State of Georgia, and shall have a Best Policyholders Rating of "A-" or better and with a financial size rating of Class V or larger.

c. **Penal Amount of Bonds, State Law.** The Contractor acknowledges and agrees that, pursuant to O.C.G.A. §§13-10-2, 13-10-20, 13-10-40 and 13-10-60, the performance bond and the payment bond must be in a penal amount equal to at least 100% of the Contract Sum. Accordingly, the Contractor warrants and agrees that, for any Change Order increasing the Contract Sum by five percent or more or when the total cost of the work has increased by five percent or more, it shall obtain a written amendment to the payment bond and the performance bond increasing the penal amounts of both bonds to 100% of the Contract Sum, effective as of the date of the Change Order.

A-33. **Indemnification, Insurance and Hazards**

a. **Responsibility.** The Contractor shall be responsible to the Owner from the time of the signing the agreement or from the beginning of the first work, whichever shall be earlier, for all injury or damage of any kind resulting from any negligent act or omission or breach, failure or other default regarding the work by the Contractor, or any of its subcontractors, its agents, employees or others working at the direction of the Contractor or on its behalf, regardless of who may be the owner of the property. The Contractor is further solely responsible for compliance with any applicable state or federal admiralty or maritime laws, including but not limited to Title 46 of the United States Code.

b. **Indemnification Agreement.** Contractor hereby agrees to indemnify and hold harmless the Owner, the State of Georgia and its departments, agencies and instrumentalities and all of their respective officers, members, employees and directors (hereinafter collectively referred to as
the “Indemnitees”) from and against any and all claims, demands, liabilities, losses, costs or expenses, including attorneys’ fees, due to liability to a third party or parties, for any loss due to bodily injury (including death), personal injury, and property damage arising out of or resulting from the performance of this contract or any act or omission on the part of the Contractor, its agents, employees or others working at the direction of Contractor or on its behalf, or due to any breach of this contract by the Contractor, or due to the application or violation of any pertinent Federal, State or local law, rule or regulation. This indemnification extends to the successors and assigns of the Contractor. This indemnification obligation survives the termination of the contract and the dissolution or, to the extent allowed by law, the bankruptcy of the Contractor. If and to the extent such damage or loss (including costs and expenses) as covered by this indemnification is paid by the State Tort Claims Trust Fund, the State Authority Liability Trust Fund, the State Employee Broad Form Liability Fund, the State Insurance and Hazard Reserve Fund, and other self-insured funds (all such funds hereinafter collectively referred to as the “Funds”) established and maintained by the State of Georgia Department of Administrative Services Risk Management Division (hereinafter “DOAS”) the Contractor agrees to reimburse the Funds for such monies paid out by the Funds.

1. This indemnification applies where the Indemnitees are partially responsible for the situation giving rise to the claim, provided however, that this indemnification does not apply to the extent of the sole negligence of the Indemnitees.

2. This indemnification does not extend beyond the scope of this contract and the work undertaken thereunder. Nor does this indemnification extend to claims for loses or injuries or damages incurred directly by the Indemnitees due to breach or default by the Indemnitees under the terms and conditions of this contract.

3. DOAS, Risk Management will endeavor to notify affected insurers of claims made against the State which fall within this indemnity. In the event of litigation, the Attorney General will endeavor to keep the Contractor and its general liability insurer as named on the insurance certificate informed regarding the claims and settlement. [See A-33.c.2.c below]

c. Insurance Requirements

1. Insurance Certificates. The Contractor shall, prior to the commencement of work, procure the insurance coverages identified below at the Contractor’s own expense and shall furnish the Owner an insurance certificate listing the Owner as the certificate holder. The insurance certificate must provide the following:

   a) Name and address of authorized agent
   b) Name and address of insured
   c) Name of insurance company(ies)
   d) Description of policies
   e) Policy Number(s)
   f) Policy Period(s)
   g) Limits of liability
   h) Name and address of Owner as certificate holder
   i) Project Name and Number
   j) Signature of authorized agent
   k) Telephone number of authorized agent
   l) Mandatory thirty day notice of cancellation / non-renewal (See A-33.c.2.a below)
   m) Evidence of Insurance Coverages shall be provided on a form acceptable to the Owner

2. Policy Provisions. Each of the insurance coverages required below (i) shall be issued by a company licensed by the Insurance Commissioner to transact the business of
insurance in the State of Georgia for the applicable line of insurance, and (ii) shall be an
insurer (or, for qualified self insureds or group self insureds, a specific excess insurer
providing statutory limits) with a Best Policyholders Rating of “A-” or better and with a
financial size rating of Class V or larger. Each such policy shall contain the following
provisions:

a) The insurance company agrees that the policy shall not be canceled, changed,
allowed to lapse or allowed to expire until thirty (30) days after the Owner has
received written notice thereof as evidenced by return receipt of registered letter or
until such time as other insurance coverage providing protection equal to protection
called for in this contract shall have been received, accepted and acknowledged by
the Owner. Such notice shall be valid only as to the project as shall have been
designated by Project Number and Name in said notice.

b) The policy shall not be subject to invalidation as to any insured by reason of any act
or omission of another insured or any of its officers, employees, agents or other
representatives (“Separation of Insureds”).

c) Each Insurer is hereby notified that the statutory requirement that the Attorney
General of Georgia shall represent and defend the Indemnities remains in full force
and effect and is not waived by issuance of any policy of insurance. In the event of
litigation, any settlement on behalf of the Indemnities must be expressly approved by
the Attorney General. The Contractor and its insurance carrier may retain, but are
not obligated to retain, counsel to assist with the defense of the Indemnitees, in which
case there will be mutual cooperation between the Attorney General and such
counsel.

d) The maximum deductible, except for worker’s compensation qualified self-insurers
or group self-insurers, in any policy shall not exceed $100,000.00.

3. Insurance Coverages. The Contractor also agrees to purchase and have the authorized
agent state on the insurance certificate that the following types of insurance coverages,
not inconsistent with the policies and requirements of O.C.G.A. § 50-21-37, have been
purchased by the Contractor. The minimum required coverages and liability limits are
as follows:

a) Workers’ Compensation Insurance. The Contractor agrees to provide Workers’
Compensation coverage, including maritime workers’ compensation coverage, if
applicable, in accordance with the statutory limits as established by the General
Assembly of the State of Georgia. Contractor is further solely responsible for
compliance with any applicable federal workers’ and maritime workers’
compensation laws, including but not limited to the U.S. Longshore & Harbor
Workers’ Compensation Act (33 U.S.C. § 901 et seq.). A group insurer must submit
a certificate of authority from the Insurance Commissioner approving the group
insurance plan. A self-insurer must submit a certificate from the Georgia Board of
Worker’s Compensation stating the Contractor qualifies to pay its own worker’s
compensation claims. The Contractor shall require all subcontractors performing
work under this contract to obtain an insurance certificate showing proof of Workers’
Compensation Coverage and shall submit a certificate on the letterhead of the
Contractor in the following language prior to the commencement of work:

“This is to certify that all subcontractors performing work on this
project are covered by their own workers’ compensation insurance
or are covered by the Contractor’s worker’s compensation
insurance.”
b) Employers’ Liability Insurance. The Contractor shall also maintain Employer’s Liability Insurance Coverage with limits of at least:

i. Bodily Injury by Accident – $1,000,000 each accident; and

ii. Bodily Injury by Disease – $1,000,000 each employee.

The Contractor shall require all subcontractors performing work under this contract to obtain an insurance certificate showing proof of Employers Liability Insurance Coverage and shall submit a certificate on the letterhead of the Contractor in the following language prior to the commencement of work:

“This is to certify that all subcontractors performing work on this project are covered by their own Employers Liability Insurance Coverage or are covered by the Contractor’s Employers Liability Insurance Coverage.”

c) Commercial General Liability Insurance. The Contractor shall provide Commercial General Liability Insurance (2004 ISO Occurrence Form or equivalent) which shall include, but need not be limited to, coverage for bodily injury and property damage arising from premises and operations liability, products and completed operations liability, blasting and explosion, collapse of structures, underground damage, personal injury liability, and contractual liability. The Commercial General Liability Insurance shall provide at minimum the following limits:

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Limit</th>
</tr>
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<tbody>
<tr>
<td>1. Premises and Operations</td>
<td>$1,000,000.00 per Occurrence</td>
</tr>
<tr>
<td>2. Products and Completed Operations</td>
<td>$1,000,000.00 per Occurrence</td>
</tr>
<tr>
<td>3. Personal Injury</td>
<td>$1,000,000.00 per Occurrence</td>
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<tr>
<td>4. Contractual</td>
<td>$1,000,000.00 per Occurrence</td>
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<tr>
<td>5. General Aggregate</td>
<td>$2,000,000.00 per Project</td>
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</tbody>
</table>

Additional Requirements for Commercial General Liability Insurance:

i. The policy shall include an additional insured endorsement naming the officers, members, and employees of the Owner and the State of Georgia as additional Insureds.

ii. The coverage extended to the additional insureds for any claims not covered by the Georgia Tort Claims Act shall be no broader than the coverage extended to the Contractor and is not expanded to cover claims and losses that are not insurable under the Contractor’s policy.

iii. The policy or policies must be on an “occurrence” basis.

iv. The policy must include separate aggregate limits per project.

d) Commercial Business Automobile Liability Insurance. The Contractor shall provide Commercial Business Automobile Liability Insurance which shall include coverage for bodily injury and property damage arising from the operation of any owned, non-owned or hired automobile. The Commercial Business Automobile Liability Insurance Policy shall provide not less than $1,000,000 Combined Single Limits for each occurrence.

Additional Requirements for Commercial Business Automobile Liability Insurance:
i. The policy shall name as additional Insureds the officers, members, and employees of the Owner and the State of Georgia.

ii. The coverage extended to the additional insureds for any claims not covered by the Georgia Tort Claims Act shall be no broader than the coverage extended to the Contractor and is not expanded to cover claims and losses that are not insurable under the Contractor’s policy.

e) Commercial Umbrella Liability Insurance. The Contractor shall provide a Commercial Umbrella Liability Insurance to provide excess coverage above the Commercial General Liability, Commercial Business Automobile Liability and the Workers’ Compensation and Employers’ Liability to satisfy the minimum limits set forth herein. The minimum amount of Umbrella limits required above the coverages and minimum limits state in A-33.c.3 (a), (b), (c) and (d) shall be:

Minimum Combined Primary Liability and Excess Umbrella Limits of:

<table>
<thead>
<tr>
<th>For Contract Amounts Less Than $5,000,000.00:</th>
<th>For Contract Amounts Equal to or Greater than $5,000,000:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 2,000,000 per Occurrence</td>
<td>$2,000,000 per Occurrence</td>
</tr>
<tr>
<td>$ 4,000,000 Aggregate</td>
<td>$10,000,000 Aggregate</td>
</tr>
</tbody>
</table>

Additional Requirements for Commercial Umbrella Liability Insurance:

i. The policy shall name as additional Insureds the officers, members, and employees of the Owner and the State of Georgia.

ii. The coverage extended to the additional insureds for any claims not covered by the Georgia Tort Claims Act shall be no broader than the coverage extended to the Contractor and is not expanded to cover claims and losses that are not insurable under the Contractor’s policy.

iii. The policy must be on an “occurrence” basis.

f) Builders Risk Insurance. Contractor shall provide a Builder’s Risk Policy to be made payable to the Owner and Contractor, as their interests may appear. The policy amount should be equal to 100% of the contract sum, written on an all risk basis or its equivalent. All deductibles shall be the sole responsibility of the Contractor, and in no event shall the amount of any deductible exceed $10,000.00. The policy shall be indorsed as follows:

“The following may occur without diminishing, changing, altering or otherwise affecting the coverage and protection afforded the insured under this policy:”

i. Furniture and equipment may be delivered to the insured premises and installed in place ready for use; and

ii. Partial or complete occupancy by Owner; and

iii. Performance of work in connection with construction operations insured by the Owner, by agents or lessees or other contractors of the Owner, or by contractors of the lessee of the Owner.
In the event that the contract is for renovation, addition or modification of an existing structure and Builders Risk Insurance is not available, the Owner will accept an Installation Floater Insurance Policy with the above endorsements [A-33.c.3 (f)] in lieu of the Builders’ Risk Insurance Policy. Such floater must insure loss to materials and equipment prior to acceptance by Owner and must be on an ALL RISK BASIS with the policy written on a specific job site.

g) Contractor's Pollution/Environmental Impairment Liability Insurance. The Contractor shall also maintain Contractor’s Pollution/Environmental Impairment Liability Insurance (with one (1) year extended reporting period) with limits of at least:

i. $1,000,000 per occurrence; and
ii. $2,000,000 aggregate.

h) Watercraft Liability Insurance. If any boats, barges, ships or other watercraft are used in connection with the work to be performed under this contract, the Contractor shall provide, at minimum, the following:

i. Protection and Indemnity Insurance; and
ii. Hull Coverage with the running down clause covering such watercraft.

The policy limit for the Protection and Indemnity Coverage shall be at least $1,000,000 for each accident and shall include coverage for Jones Act/crew and for wreck removal.

i) Disposition of Insurance Documents. Prior to commencing work, one certificate of insurance with all endorsements attached must be deposited with Owner for each insurance policy required.

4. Termination of Obligation to Insure. Unless otherwise expressly provided to the contrary, the obligation to insure as provided herein shall not terminate until the Design Professional shall have executed the Certificate of Material Completion.

5. Failure of Insurers. The Contractor is responsible for any delay resulting from the failure of his insurance carriers to furnish proof of proper coverage in the prescribed form.

A-34. Identification, Correlation, and Intent of Documents. The Contract Documents are complementary, and what is called for by one shall be as binding as if called for by all. The Contract Documents consist of the Contract between the Owner and Contractor with these General Conditions, Supplementary and other Conditions, the Drawings, the Specifications, Bid Form, Instructions to Bidders, all Addenda issued prior to the execution of this Agreement, and all Modifications issued by the Owner after execution of the Contract such as Change Orders, and written interpretations. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. Work not covered in the Contract Documents will not be required unless it is necessary to produce the intended results.


a. Refinement of Documents. The Contractor shall do no work without complete, definite, and clear drawings and specifications. In the event the Contract Documents are not complete, definite, and clear the Contractor shall make demand upon the Design Professional and/or Owner in writing for additional instructions. With reasonable promptness the Design Professional or Owner shall furnish complete, definite, and clear instructions in writing, or by means of drawings, or in writing and by means of drawings. Such additional instructions, if given orally, shall be confirmed in writing or by drawings or both within a reasonable space of time. Any such additional instructions shall be consistent with the Contract Documents, true
development thereof, and reasonably inferable therefrom. The work shall be executed in conformity with the aforesaid instructions. The Design Professional shall furnish the Owner a copy of all additional instructions issued to the Contractor.

A-36. Contract Documents at the Site. The Contractor shall keep at the site one copy of the Contract Documents in good order with all addenda and change orders noted thereon and available to the Owner, Design Professional and their representative(s).

A-37. Ownership of Drawings and Models. All drawings, specifications, and copies thereof furnished by the Design Professional are the property of the Owner. They are not to be used on other work, and with the exception of one set, are to be returned to the Design Professional on his request at the completion of the work. All models are the property of the Owner.

A-38. Specification Arrangement. The specifications are separated into numbered and titled divisions for convenience of reference. Neither the Owner nor the Design Professional assumes any responsibility for defining the limits of any subcontracts on account of the arrangement of the specifications. The Contractor is responsible to the Owner for the entire contract and the execution of all of the work referred to in the Contract Documents. No partial sets of bidding documents shall be issued by the Design Professional.

A-39. Conflicts. The following principles shall govern the settlement of disputes which may arise over conflicts in the Contract Documents: (a) as between figures given on drawings and the scaled measurements, the figures shall govern; (b) as between large-scale drawings and small-scale drawings, the larger scale shall govern; (c) as between drawings and specifications, the requirements of the specifications shall govern; (d) as between the contract and the specifications, the requirements of the contract shall govern; and (e) as between the contract and the Bid Submittal, the requirements of the contract shall govern. Any objections or amendments by Contractor as noted in Contractor’s Bid Submittal that have not been explicitly accepted by Owner in writing shall not be included in the Contract Documents and shall be given no weight or consideration. Conflicts noted shall be reported to the Design Professional and Owner.

A-40. Effect of Addenda, Bulletins, and Change Orders. No special implication, interpretation, construction, connotation, denotation, import, or meaning shall be assigned to any provision of the Contract Documents because of changes created by the issuance of any (1) addendum, (2) bulletin, or (3) change order other than the precise meaning that the contact documents would have had if the provision thus created had read originally as it reads subsequently to the (1) addendum, (2) bulletin, or (3) change order by which it was created.

A-41. Manufacturer's Recommendations. In the event the contract shall require that given work or materials shall be installed in accordance with the manufacturer’s recommendations or requirements, the Contractor shall obtain for his use at the site in executing the work copies of the bulletin, circular, catalogue, or other publication of the manufacturer bearing the title, number, edition, date, etc., designated in the contract.

A-42. Superintendence and Supervision by Contractor

a. Superintendent of Contractor. The Contractor shall keep on his work during its progress until the Certificate of Material Completion has been executed by the Design Professional a competent superintendent and any necessary assistants as required under Section 1.16 of the General Project Requirements in the Technical Specifications.

b. Supervision by Contractor. The Contractor shall supervise and direct the Work, using his best skill and attention and he shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.
A-43. **Commencement, Prosecution and Completion.** The Contractor will be required (a) to commence work under this contract within ten days after date of written notice from the Owner to proceed, (b) to prosecute the work with faithfulness and energy (c) to install the various parts of the work with equal steps shown on the construction progress schedule and at the same rate shown on the construction progress schedule to be furnished pursuant to the General Project Requirements in the Technical Specifications and (d) to complete the work within the time stipulated in the bid form as adjusted by any extensions of time provided. Commencement of work shall mean actual physical work on the site. In the event the Contractor shall be delinquent in respect to compliance with the time limits established in the construction progress schedule, he shall, within seven days after receipt of written demand of the Owner, commence working not less than a twelve hour day and no less than six days a week until such time as he shall have brought the amount of work in place into compliance with the construction progress schedule. Fulfillment of this requirement as to overtime work (hereinafter referred to as “recovery of lost time required of the Contractor for his breach of covenant as to time”) shall not relieve the Contractor from liability for breach of the covenant as to time. For account of recovery of lost time required of the Contractor for his breach of covenant as to time the Contractor shall be entitled to no claim against the Owner for any payment, injury or damages.

A-44. **Measurements and Dimensions.** Before ordering material or doing work which is dependent upon coordination with building conditions, the Contractor shall verify all dimensions, elevations, grades, and pitch by taking measurements at the work site as required by the Technical Specifications and shall be responsible for the correctness of same. No consideration will be given to any claim based on differences between the actual dimensions and those indicated on the drawings. Any discrepancies between the drawings and/or the specifications and the existing conditions shall be referred to the Design Professional for additional instructions before any work affected thereby is given.

A-45. **Reserved.**

A-46. **Reserved.**

A-47. **Cleaning Up.** The Contractor shall at all time keep the premises free from accumulations of waste material or rubbish caused by his employees or work. At the end of each working day, Contractor shall leave the premises in a clean condition and remove all trash and debris. At the completion of the work he shall remove all his rubbish from and about the premises and all his tools and surplus materials and shall leave his work in a clean condition or its equivalent, unless more exactly specified in the Technical Specifications. In case of dispute the Owner may remove the rubbish and charge the cost to the Contractor as the Design Professional shall determine to be just.

A-48. **Progress Reports.** Contractor shall submit all required Submittals to Owner and/or Design Professional as set forth in the Technical Specifications. In addition to such Submittals, Owner reserves the right to request additional progress reports, at its sole discretion, as further described in this section. Upon request by Owner, within such reasonable space of time as the Owner shall designate in writing, the Contractor shall submit to the Owner such schedule of quantities and costs, construction progress schedules, payrolls, bills, vouchers, correct copies of all subcontracts, statements, reports, correct copies of all agreements, correspondence, and written transactions with the surety on the performance bond which have any relevance to the work, estimates, records, and other data as the Owner may request concerning work performed or to be performed under this contract. When requested by the Owner, the Contractor shall give the Owner access to accounts relating to the foregoing. The above reports shall include but are not limited to (a) written notice of dates by which specified work will have been completed, (b) written notice of dates by which non-compliant work shall have been made good, (c) written notice that non-compliant work has been made good, (d) written notice as to the date or dates by which work which has not been performed with equal steps and at the same rate required by the construction progress schedule shall have been brought into conformity with the construction progress schedule, (e) date by which any undisputed claim of a subcontractor, Supplier, or laborer shall have been paid, (f) written advice
regarding the nature and amount of any disputed claim of a subcontractor, Supplier, or laborer, and (g) information regarding work performed upon demand of the Owner pursuant to a Change Order. Prior to submitting the first periodical estimate, the Contractor shall have furnished to the Owner and the Design Professional a construction progress schedule (based on work in place only) in accordance with the style and format of a specimen to be furnished by the Owner.

A-49. Changes in the Work

a. Change Orders. A Change Order is a written instrument, executed by Owner, which changes the Contract Documents, including but not limited to changes in the Work or adjustments in Contract Time or Contract Sum. Owner may order changes in the Work pursuant to a Change Order without invalidating the Contract and without notice to sureties. Without a Change Order executed by Owner, Contractor shall not make any changes in the Work or perform any work that is not a part of the Contract Documents, nor shall Contractor receive any compensation or make any Claim therefor.

(1) Construction Professional Requests for Change Orders. If Construction Professional believes that any act or omission of Owner or Design Professional results in a change in the Work as required by the Contract Documents, then it shall submit a Notice of Claim in the form and within the time set forth in Section A-50(b). If Design Professional determines that the Work has been so changed and that Construction Professional has complied with Section A-50(b), it shall provide Notice to Owner and Owner will issue a Change Order under this Section. Construction Professional or Owner may protest Design Professional’s Decision as provided in Section A-50(b)(5).

b. Initiation of Change Orders. Unless otherwise expressly provided herein, Change Orders are initiated by Owner. Upon Owner’s request, Design Professional shall complete a description of the scope of Work or change in Work to be incorporated into a proposed Change Order, which shall be forwarded to Construction Professional and Owner. A sample change order form is provided in Section G, however, the exact form to be used may differ and may be provided by the Design Professional or the Owner.

c. Contractor’s Response to Proposed Change Order. Contractor shall respond to the proposed Change Order within fourteen (14) calendar days, or within such other reasonable time as Owner may direct. Contractor’s response shall state the estimated impact, if any, of the Change Order on the Contract Time and Contract Sum and shall include a justification for any proposed increase in Contract Time and Contract Sum, including an itemized breakdown as provided in Section A-49(c)(2). Contractor’s failure to include a proposed change in Contract Time or in Contract Sum shall waive any Claim for any increase in Contract Time and Contract Sum related to or arising out of the Change Order.

1. Construction Professional’s Justification for Increase in Contract Time. As a condition to Owner’s approval of an increase in Contract Time for Change Order Work, Contractor must demonstrate on the critical path of the overall Project Schedule that the Change Order Work will result in an increase in the time required to complete the Work beyond the Material Completion Date. No extension to the Contract Time shall be allowed unless the Change Order Work will increase the duration of the critical path beyond the Material Completion Date. In addition, Contractor shall identify any reduction in Contract Time that may result from any proposed Change Order.

2. Itemized Breakdown of Change Order Costs. As a condition to Owner’s approval of an increase in the Contract Sum, Contractor shall include an itemized breakdown of the change in Contract Sum which lists the estimated Allowable
Change Order Costs in the form prescribed by Owner. In addition, Contractor shall identify the amount of any cost savings that result from a proposed Change Order. The breakdown is submitted to allow Design Professional and Owner to make a judgment on the dollar amount of the adjustment in the Contract Sum but shall not be incorporated into the Change Order. For a Change Order payable by lump sum ("Lump Sum Change Order"), upon acceptance by Owner, the agreed Change Order Sum shall be the lump sum, and Contractor shall be paid the Change Order Sum upon completion of the Change Order Work. Contractor shall also furnish detailed documentation of the breakdown, which shall include a separate breakdown for each Trade Contractor’s estimated charges that has been prepared by each Trade Contractor and submitted on the letterhead of the Trade Contractor or via electronic mail from the Trade Contractor. The breakdown shall be accompanied by the following declaration:

I do solemnly swear to the best of my knowledge, information, and belief, that the costs shown hereinabove do not exceed current costs for like services or materials in the locality of the Project and, in the case of a Force Account, the costs represented do not exceed the actual costs to Construction Professional; and that the quantities shown do not exceed actual requirements.

d. Deductive Change Orders. If Owner issues a deductive Change Order regarding the reduction in Contract Sum or Contract Time, then Contractor shall provide all information required under Section A-49(c)(1) that would apply to increases in Contract Sum or Contract Time. Contractor’s failure to provide information or documentation related to reductions in Contract Sum or Contract Time shall not preclude Owner from equitably adjusting the Contract Sum or Contract Time.

e. Review of Proposed Change Order Terms. Design Professional and Owner shall review Contractor’s response and shall agree or disagree with any proposed changes in Contract Time, Contract Sum, and any other adjustments proposed by Contractor within fifteen (15) days of receipt or within such other reasonable time as Owner may direct. If Owner does not provide notice of its approval within the time set forth in this Section, then the changes proposed by Contractor shall be deemed rejected by Owner.

1. Disagreement as to Change in Contract Sum. If Design Professional or Owner disagree with Contractor as to the amount of the proposed adjustment to the Contract Sum and such disagreement is not resolved within twenty-one (21) days after Owner’s receipt of Contractor’s response under Section A-49(c), then Owner, if it desires the Change Order Work to proceed, may direct the Change Order Work to commence under a Force Account Change Order in accordance with Section A-49(h). In no event shall any increase in the Contract Sum for such Change Order Work exceed the increase identified in Construction Professional’s response under Section A-49(c).

2. Disagreement as to Change in Contract Time or Other Disagreements. If Design Professional or Owner disagree with Contractor as to matters other than adjustments to Contract Sum, including but not limited to proposed adjustments to Contract Time, and such disagreement is not resolved within twenty-one (21) days after Owner’s receipt of Contractor’s response under Section A-49(c), then Owner, if it desires the Change Order Work to proceed, may direct the Change Order Work to commence, and the dispute shall be resolved as set forth in Section A-50. In no event shall any increase in the Contract Time exceed the increase identified in Construction Professional’s response under Section A-49(c).
f. **Acceptance of Proposed Change Order.** If Owner agrees with Contractor’s proposed changes submitted pursuant to Section A-49(c), then Owner shall execute the Change Order and provide notice of acceptance thereof by issuing a Proceed Order. Upon Owner’s acceptance and execution, the proposed Change Order shall be binding and of full force and effect as a Change Order. All Change Orders shall be performed under the conditions of the original Contract Documents except as specifically modified by the Change Order. All Change Orders must state that the Material Completion Date either is not changed or is increased or decreased by a specific number of days. If no adjustment in Contract Time is stated in a Change Order, then Contractor shall be entitled to no adjustment to the Material Completion Date. Contractor shall proceed with the Change Order Work either (a) if no time is stated in the Change Order, upon receipt of Owner’s Proceed Order or (b) if a time is stated in the Change Order or Proceed Order, at such time.

g. **Effect of Acceptance.** The acceptance or execution of a proposed Change Order by Contractor shall constitute conclusive evidence of Contractor’s agreement to the changes in the Work, to the Change Order Sum (if applicable), and the adjustments, if any, to the Contract Sum and the Contract Time. Contractor, by accepting or executing a proposed Change Order, waives and releases any claim against Owner for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or affected by the Change Order, except as explicitly stated in the Change Order.

1. **Change Order Terms.** All Change Orders shall contain the following language: “The change in Contract Time and Contract Sum (if any) provided by this Change Order constitutes compensation in full to Contractor for the Change Order Work and accounts for all delays and impacts related thereto.” Any changes or reservations by Contractor to the representations and releases in the Change Order shall be a material breach of this Contract.

h. **Force Account Change Orders.** A Force Account Change Order may be used in the event (i) Contractor and Owner cannot agree on the Change Order Sum for a Lump Sum Change Order, (ii) costs associated with a Change Order cannot be reasonably determined prior to beginning the Change Order Work, (iii) Owner and Contractor have agreed to Unit Prices for the Work but cannot determine the number of Units involved in the Change Order (“Unit Price Change Order”), or (iv) Owner otherwise determines.

1. **Initiation of Force Account Change Order.** A Force Account is authorized by the issuance of a Force Account Authorization. The Force Account Authorization shall include the Design Professional’s description of the scope of Work, the Stipulated Maximum Sum, and the authorization to commence Work either on a particular date or, if no date is provided, upon issuance of the Force Account Authorization. The Stipulated Maximum Sum shall be based on the estimated Allowable Change Order Costs as set forth in Section A-49(i) and shall set forth the maximum amount that Contractor shall be paid for the Change Order Work. It shall be the sole responsibility of Contractor to apply in writing to Owner, not to Design Professional, for an increase in the Stipulated Maximum Sum if the total value of the Work is approaching and might exceed the Stipulated Maximum Sum.

2. **Accounting for Allowable Change Order Costs.** As the Change Order Work progresses, Contractor must provide a daily accounting of Allowable Change Order Costs incurred in accomplishing the Work under a Force Account Change Order. With respect to Unit Price Change Orders, Contractor must provide a daily accounting of units completed. Owner shall be permitted, on a daily basis, to verify such records and information, and may require such additional records as are necessary to determine the Allowable Change Order Costs of such Change Order Work. Allowable Change Order Costs, except as otherwise agreed to in writing by
Owner, shall not exceed those prevailing for the trades or crafts, materials, and equipment in the locality of the Project.

3. Determining Final Cost of Force Account. Within fourteen (14) days after the conclusion of the Change Order Work ordered by a Force Account Change Order, Contractor and Owner shall determine the total Change Order Sum. Such Change Order Sum shall be incorporated into and finalized in the Force Account Change Order.

4. Interim Payment for Force Account Work. If the Work performed under a Force Account Change Order extends beyond one monthly Payment Application, Contractor may request payment for the portion of the Change Order Work performed in that month. In such case, Owner will issue a Force Account Change Order which shall include the Force Account Change Order Work performed in that month. The Force Account Change Order must be executed before Contractor may include the Force Account Work on a Payment Application.

i. Change Order Sum.

1. Lump Sum and Unit Price Change Orders. The compensation due Contractor under any Lump Sum Change Order shall be determined in advance based upon the total of the estimated Allowable Change Order Costs identified below. The lump sum amount set forth in a Lump Sum Change Order shall be the Change Order Sum. Under a Unit Price Change Order, the unit price multiplied by the number of units shall be the Change Order Sum, and no markup provided in Section A-49(j)(4) shall be allowed on such amounts. The Change Order Sum for each Lump Sum and Unit Price Change Order shall be the exclusive compensation for each such Change Order.

2. Force Account Change Orders. For Force Account Change Orders, the Change Order Sum shall solely include the Allowable Change Order Costs listed in Section A-49(j) that Contractor incurs in performing the Force Account Work, but such Change Order Sum shall not exceed Stipulated Maximum Sum established pursuant to Section A-49(h)(1).

j. Allowable Change Order Costs. Allowable Change Order Costs include the items in this Section A-49(j), but only those costs that are incurred in the performance of the Change Order Work.

1. Allowable Subcontractor Costs. Allowable Subcontractor Costs for Change Order Work shall exclusively include the costs identified in this Section A-49(j).

i. Subcontractor Labor and Materials. Allowable Subcontractor Costs for Change Order Work shall include the costs of all materials and equipment used in completing the Change Order Work and the costs of all labor to physically perform the Change Order Work but shall not include any charges for small tools or other expendables.

ii. Subcontractor Travel Costs. Allowable Subcontractor Costs for Change Order Work include a stipend for travel if the Subcontractor’s office is more than one hundred (100) miles from the Project Site. The stipend shall be allowed only if the Subcontractor’s employees receive a per diem under current company policy and only if the full value of the stipend is actually paid to the Subcontractor’s employees. The stipend shall not exceed fifty dollars ($50.00) per day for each Subcontractor employee performing the Change Order Work for the number of days determined by Design.
Professional to be attributable to the Change Order Work.

iii. Costs of Subcontractor Bonds or Subcontractor Default Insurance. Allowable Subcontractor Costs for Change Order Work include the costs of payment and performance bonds covering the Subcontractor’s Work or the Cost of Subcontractor default insurance.

2 Contractor’s Payment and Performance Bond and Insurance Costs. Allowable Change Order Costs include the increases in premiums for Contractor’s Payment Bond and Performance Bond and Insurance, but solely to the extent that such increased costs are a result of the Change Order. The cost of the increase in premium shall be an allowable cost but shall not be marked up.

3. Allowable General Conditions Costs. If the Change Order authorizes a compensable increase in Contract Time, Allowable Change Order Costs include General Conditions Costs listed in this Section to the extent incurred exclusively for such Change Order Work.

i. Field Office Costs. General Conditions Costs include all costs associated with establishing, equipping, operating, maintaining, and demobilizing the field office.

ii. Utility Costs. General Conditions Costs include the costs of utilities such as water, power, gas, sewer, and fuel required for Contractor’s operations at the Project Site, except to the extent such costs are included in the rental rates for such equipment in accordance with the Contract Documents.

iii. Permits, Fees, etc. General Conditions Costs include the cost of permits, fees, licenses, tests, royalties, sales, use, or any other such taxes, tariffs, or duties related to the Work for which Contractor is responsible, but not including any fines or interest due to Contractor’s failure to meet legal requirements associated with such items.

iv. Travel Expenses. General Conditions may include travel costs. If Contractor bills for mileage or per diems, such mileage or per diems shall comply with the IRS Standard Rates for Business unless a different rate is negotiated.

v. Labor Costs. General Conditions Costs include the wages or salaries of Contractor’s personnel stationed at the Site or when off-site and performing administrative functions essential to the Project. Such costs may also include costs incurred by Contractor for taxes, insurance contributions, pensions, and other benefits for such personnel.

4. Markup for General Conditions Costs and Fee. If Contractor is not awarded its General Conditions Costs pursuant to Section A-49(j)(3)0, Contractor shall be allowed a mark-up on the Allowable Change Order Costs set forth above as compensation for Contractor’s General Conditions Costs and profit (“Mark-Up”). The Mark-Up percentage shall not exceed seven and one-half percent (7 ½%) and shall be set when the parties determine the Stipulated Maximum Sum. If Contractor is awarded General Conditions Costs under Section A-49(j)(3)0, Contractor’s Mark-Up shall be equal to 4% of the Allowable Change Order Costs without any additional Mark-Up.

A-50. Claims

1. No Arbitration. There is no agreement to arbitrate any dispute arising under the Contract Documents. Any and all references to arbitration in any of the Contract Documents, including without limitation any exhibits, attachments, or references, are hereby deleted and rendered null and void.

2. Continuation of the Work. Unless otherwise agreed in writing, and notwithstanding any other rights or obligations of either of the parties under the Contract Documents, Contractor must proceed with the performance of the Work during the pendency of any Claim, dispute, protest, and other matter in question or during any alternative dispute resolution proceeding, court proceeding, or other proceeding to resolve any Claim, dispute, protest, and other matter in question. Unless otherwise provided herein, Owner will continue to make payments in accordance with the Contract Documents, but Owner is under no obligation to make payments on or against such Claim, dispute, protest, and other matter in question during the time required to resolve such Claim, dispute, protest, and other matter in question.

b. General Claims for Contract Adjustments and Disputes. If Contractor desires to assert a Claim against Owner, it shall issue a Notice of Claim within the time and in the form provided in this Section. Any and all Claims not made within the required time period, or in the required form, are waived by Contractor. The requirement of Construction Professional to provide a Notice of Claim under this Section shall be in addition to any requirement to provide notice under any other Section hereof.

1. Form of Claims. A Notice of Claim shall be made in writing, shall be hand delivered or sent via U.S. Mail with return receipt, shall include a title or subject line that clearly identifies the document as a “Claim,” shall identify the specific provision of the Contract upon which the Claim is based, and must set forth in detail the basis for the Claim. Claims for adjustments to the Contract Sum or other damages or compensation shall identify the amount of the Claim and shall include appropriate documentation of the amount claimed. Claims for extensions of Contract Time shall identify the number of days claimed, the cause of any delay, the affected schedule activities, and information to demonstrate critical path was extended.

2. Time for Submission of Claims. A Notice of Claim shall be made within fourteen (14) days after the occurrence of the event giving rise to the Claim or within fourteen (14) days after the event giving rise to the Claim should have been first observed, whichever is first, unless the Contract Documents specify a shorter or longer period with respect to such event, in which case such specific provision shall govern. In the case of a continuing delay as a result of a single event, only one Notice of Claim is necessary.

3. Claims Limited to Actual Costs. Unless otherwise provided herein, Claims for increase in the Contract Sum shall be no greater than the actual direct, jobsite costs incurred by Contractor. If any other provision of the Contract Documents limits or precludes additional compensation to Construction Professional in certain events or circumstances, then any Claim for additional compensation related to such event or circumstance shall be limited or precluded as provided in such provision. As an additional condition to increase the Contract Sum, Contractor shall retain contemporaneous documentation of all costs supporting such increase and shall submit copies thereof to Owner along with the Notice of Claim or, for continuing Claims, on a daily basis after submitting the Notice of Claim.
4. **Claims for Extension of Contract Time.** The provisions of Section A-51 shall govern Contractor's entitlement to an extension of Contract Time and any additional compensation related thereto, but as a condition precedent to such extension of Contract Time or such additional compensation, Contractor shall further comply with this Section A-50(b).

5. **Protest of Decision.** Owner may protest Design Professional's Decision by issuing a Notice of Protest to Contractor and Design Professional. If Contractor desires to protest any Design Professional's Decision, including any determinations regarding Claims by Contractor, then it shall issue a Notice of Protest to Owner and Design Professional no later than thirty (30) days after the Design Professional's Decision. Contractor's Notice of Protest shall be made in writing, shall include a title or subject line that clearly identifies the document as a “Notice of Protest” and shall set forth in detail the basis for the Protest. Construction Professional's failure to issue a Notice of Protest shall result in a waiver of Construction Professional's rights, remedies, or recovery arising from the Claim or dispute giving rise to such Protest.

c. **Dispute Resolution.**

1. **Initial Dispute Resolution.** If a dispute arises out of or relates to this Contract, the parties shall endeavor to settle the dispute first through direct discussions between the parties' representatives who have the authority to settle the dispute. If the parties' representatives are not able to promptly settle the dispute, they shall refer the dispute to the senior administrators of the parties who have the authority to settle the dispute, who shall meet within fourteen (14) days thereafter. If the dispute is not settled by the senior administrators, the parties may submit the dispute to mediation in accordance with Section A-50(c)(2).

2. **Mediation.** If the dispute cannot be settled pursuant to Section 0-50(c)(1), the parties may elect to submit the dispute to mediation. The parties agree to commence such mediation within sixty (60) days of electing mediation. The parties shall select a mutually agreeable mediator and shall share the cost of the mediator equally. Either party may terminate the mediation at any time after the first session, but the decision to terminate shall be communicated directly by the party's representative to the other party's representative and the mediator.

3. **Multiparty Proceeding.** All parties necessary to resolve a Claim shall be parties to the same dispute resolution proceeding and shall share the costs equally. Appropriate provisions shall be included in all other contracts relating to the Work to provide for the consolidation of such dispute resolution procedures.

4. **No Litigation.** No litigation may be commenced without first following the initial dispute resolution process in this Section. Litigation may be filed only in the Superior Court of Fulton County, Georgia, pursuant to O.C.G.A. § 50-21-1, after the filing party provides thirty (30) days’ Notice to the opposing party. The parties hereby agree that the Superior Court of Fulton County, Georgia shall have exclusive jurisdiction and venue in all matters concerning this Contract.

**A-51. Delays and Extensions of Time**

a. **Grounds.** If the Contractor is delayed at any time in the progress of the Work by changes ordered in the Work, by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control, then the contract time shall be extended by Change Order for such
reasonable time as the Design Professional may determine. The Contractor expressly agrees that the Contractor’s sole remedy for such delay shall be an extension of contract time and that the Contractor shall make no demand for damages or extended overhead.

b. Filing of Claim. No such extension shall be made for delay occurring more than ten (10) days before claim thereof is made in writing to the Design Professional with copy to the Owner. In the case of a continuing cause of delay, only one claim is necessary, but no claim for a continuing delay shall be valid unless the Contractor, within ten days from the cessation of the delay, shall have given notice in writing to the Design Professional, with copy to the Owner, as to the amount of additional time claimed.

c. Delay in Furnishing Drawings. If no schedule or agreement stating the dates upon which drawings or approval of shop drawings shall be furnished is made, then no claim for delay shall be allowed on account of failure of the Design Professional to furnish drawings or approval of shop drawings until two weeks after demand thereof and not then unless such claim be reasonable.

d. No Damages for Delay. In the event of any delay, not the fault of the Contractor, the Contractor shall be entitled to an extension of time for completion only, and shall not be entitled to any additional payment on account of such delay. Without limiting the foregoing, the Contractor shall not be entitled to payment or compensation of any kind from the Owner for direct, indirect or impact damages, including but not limited to costs of acceleration arising because of hindrance or delay from any cause whatsoever, whether such hindrances or delays be reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable; provided, however, that this provision shall not preclude recovery by the Contractor of damages for hindrances or delays due solely to fraud or bad faith on the part of the Owner or his agents.

e. Exceptions to General Rule - Compensable Delay. Contractor shall be entitled to an extension of contract time and adjustment to the contract sum for the delays caused by the United States Army Corps of Engineers (“USACE”) and/or its contractors’ work at the borrow area as set forth in the Technical Specifications of this contract, on the condition that Contractor submits a Notice of Claim in conformance with, and by the time set forth in Section A-50. The amount of increase in the contract sum for delays due to USACE or its contractors shall be limited to the Unit Price for Contractor Standby Time as set forth in Contractor’s bid submittal. The extension of contract time for delays due to USACE or its contractors shall be determined by the Design Professional. Contractor shall submit documentation to support a claim for extension in contract time to the Design Professional and any other documentation requested by Design Professional. Nothing contained herein shall affect Owner’s right to suspend work for convenience as set forth in Section A-55.

A-52. Inspection of Work

a. Access to Work. The Design Professional, Owner and/or their representatives shall at all times have access to the work wherever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

b. Notice to Design Professional from Contractor Prior to Covering Work. If the specifications, the Design Professional’s instructions (either in the specifications or issued later in writing), laws, ordinances or any public authority require any work to be specially tested or approved, the Contractor shall give the Design Professional and/or Owner timely notice in writing of its readiness for inspection, and if the inspection is by any authority other than the Design Professional, of the date fixed for such inspection. Inspections by the Design Professional shall be made promptly and where practicable at the source of supply. If any work should be covered without approval or consent of the Design Professional, it must, if required by the Design Professional, be uncovered for examination at the Contractor’s expense.
c. Re-examination or Re-testing of Work Covered pursuant to Consent of Design Professional or Owner. Re-examination or re-testing of questioned work covered pursuant to consent of the Design Professional or Owner may be ordered by the Design Professional or Owner, and if so ordered the work must be uncovered by the Contractor. If such work be found in accordance with the Contract Documents the Owner shall pay the cost of re-examination and replacement or of re-testing. If such work be found not in accordance with the Contract Documents the Contractor shall pay such cost unless he shall show that the defect in the work was caused by another Contractor, and in that event the Owner shall pay such cost. Re-examination or re-testing under the terms of this Article applies only to work which has been covered with consent of the Design Professional or Owner. Work covered without consent of the Design Professional or Owner must be uncovered for examination.

d. Inspection Does Not Relieve Contractor. Under the Contract Documents the Contractor has assumed the responsibility of furnishing all services, labor and materials for the entire work in accordance with such documents. No provisions of this article nor any inspection of the work by the Owner, representatives of the Owner, engineers employed by the Design Professional, representatives of the Design Professional, or the Design Professional shall in any way diminish, relieve, or alter said responsibility and undertaking of the Contractor; nor shall the omission of any of the foregoing to discover or to bring to the attention of the Contractor the existence of any work or materials injured or done not in accordance with said Contract Documents in any way diminish, relieve, or alter such obligation of the Contractor nor shall the aforesaid omission diminish or alter the rights or remedies of the Owner as set forth in the Contract Documents. The Contract Compliance Specialist owes no duty to the Contractor.

e. False Start. In the event notice of readiness pursuant to A-52(b), above, shall have been issued prematurely by the Contractor, his action shall be deemed to be a “false start”, and the Contractor shall be liable for the damage resulting from the aforesaid false start, including but not limited to the salary, professional fees, and travel and living expenses of the person or parties inconvenienced by the aforesaid false start.

A-53. Correction of Work

a. The Contractor shall promptly correct any Work rejected by the Design Professional or Owner as defective or as failing to conform to the Contract Documents whether observed before or after Completion and whether or not fabricated, installed or completed, and shall correct any Work found to be defective or nonconforming within a period of one year from the Date of Completion of the Contract or within such longer period of time as may be prescribed by law or the terms of any applicable special warranty required by the Contract Documents. The provisions of this Article apply to Work done by subcontractors as well as to Work done by direct employees of the Contractor.

b. Remedy of the Owner for Breach of Notice of Non-Compliant Work. If the Contractor does not make good a deficiency within a reasonable space of time fixed in a notice of non-compliant work, the Owner may:

1. Remove the non-compliant work and store it at the expense of the Contractor. If the Contractor does not pay the expenses of such removal and storing within ten days after receipt of written demand of the Owner, the Owner may upon three days’ notice in writing to the Contractor, sell such materials at private sale or at auction and shall account for the net proceeds thereof after deducting all proper costs incurred by the Owner; and

2. Supply omitted work, perform unexecuted work, replace and re-execute work not done in accordance with the methods and materials designated in the Contract Documents and deduct the cost thereof from any payment then or thereafter due the Contractor.
c. The remedies stated in this article are in addition to the remedies otherwise available to the Owner, do not exclude such other remedies, and are without prejudice to any other remedies. Time limits stated in notices of non-compliant work are of the essence of the contract.

A-54. Deductions for Uncorrected Work. If the Design Professional and/or Owner deem it inexpedient to correct work injured or done not in accordance with the contract, an equitable deduction from the contract price shall be made therefore; but there is no duty on the part of the Owner to accept any work injured or done not in accordance with the methods and materials designated in the Contract Documents, nor does the Contractor have the right to demand that there shall be acceptance of work injured or done not in accordance with the methods and materials designated in the Contract Documents.

A-55. Right to Suspend Work.

a. Owner and Design Professional's Right to Suspend Work. Owner and Design Professional may stop the Work upon observation of apparent Non-Compliant Work or whenever such stoppage may be necessary to protect the Work or protect the interests of Owner. The stop work order may be given orally, with Notice to be provided to Contractor within seventy-two (72) hours. If the Work is later determined by Design Professional to be conforming Work, and Construction Professional then complies with Section A-51, Contractor shall be entitled to a compensable time extension as determined by Design Professional. If the Work is determined by Design Professional to be Non-Compliant Work, then Construction Professional shall not be entitled to any increase in contract sum or extension of contract time, and Owner may exercise any right hereunder with regard to such Non-Compliant Work.

b. Owner's Right to Suspend Work for Convenience. Owner may suspend the Work at any time, at Owner's sole discretion, upon giving Contractor five (5) days' notice thereof. Upon resumption of the Work, if Contractor complies with Section A-51, Contractor shall be entitled to a compensable time extension as determined by Design Professional.

A-56. Subcontractors, Materialmen, Suppliers and Employees

a. Subcontractor. A subcontractor is a person or entity who has a direct contract with the Contractor to perform any of the Work at the site.

b. Submission of List. Unless otherwise required by the Contract Documents, the Contractor, as soon as practicable after the award of the Contract, shall furnish to the Owner in writing the names of subcontractors for each of the principal portions of the Work. The Contractor shall not employ any subcontractor to whom the Owner may have a reasonable objection. The Contractor shall not be required to contract with anyone to whom he has a reasonable objection. The contract requires each subcontractor, to the extent of the Work to be performed by the subcontractor, (1) to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor, all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner, and (2) allow to the subcontractor the benefit of all rights, remedies and redress afforded to the Contractor by these Contract Documents.

c. Warranty of Contractor. The Contractor warrants that the subcontractors selected by him are reputable, skilled, reliable, competent, qualified in the trade or field in which they are to perform on the project, and thoroughly familiar with applicable codes.

d. Certification On Account Of. The Design Professional and/or Owner shall, on request furnish to any subcontractor, wherever practicable, evidence of the amounts certified on his account.

e. Contractor Responsible for Acts and Omissions of Subcontractors, Materialmen, Suppliers and Employees. The Contractor agrees that he is as fully responsible for the acts and omissions
of his subcontractors, materialmen, suppliers, and employees and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

f. No Contract Between Owner and Any Subcontractor, Materialmen, Supplier or Employee. Nothing contained in the Contract Documents shall create any contractual relation between the Owner and any subcontractor or between the Owner and any materialmen, supplier, or employee of the Contractor or his subcontractors.

A-57. Relationship of Contractor and Subcontractors

a. Obligations of Each. The Contractor agrees to bind every subcontractor and every subcontractor agrees to be bound by the terms of the contract documents insofar as they are applicable to his work.

b. Owner Not Obligated to Any Subcontractor. There is no obligation on the part of the Owner to pay to or to see to the payment of any sums to any (1) subcontractor, (2) supplier, (3) laborer, (4) employee, or (5) claimant as defined in the payment bond.

b. Incorporation of Terms in Subcontracts. The Contractor agrees that failure on his part to incorporate in all subcontracts an express provision in accordance with A-57(a) above, shall be deemed to be and is a breach of an essential covenant.

A-58. Application for Payments

a. Periodical Estimates and Receipts. The Contractor shall submit to the Design Professional or Owner in accordance with a form to be supplied by the Owner, an application [sometimes herein designated “periodical estimate”] for each payment, and, if requested by the Owner or Design Professional, receipts or other vouchers, showing his payments for materials and labor, including payments to subcontractors as requested.

b. Initial Breakdown and Periodical Payments. If payments are made on valuation of work done, such application shall be submitted at least ten days before each payment falls due, and the Contractor shall, before the first application, submit to the Design Professional or Owner a schedule of values of the various parts of the work, including quantities, aggregating the total sum of the contract, on a form to be furnished or approved by the Owner with a complete breakdown of the contract price so arranged and so itemized as to meet the approval of the Design Professional or Owner and, if requested, supported by such evidence as to its correctness as the Design Professional or Owner may direct. The schedule designated herein the "initial breakdown", when approved by the Design Professional or Owner shall be used as a basis for certificates of payment, unless it is found to be in error. In applying for payments, the Contractor shall submit a statement based upon this schedule on a periodical estimate form to be supplied or approved by the Owner, and, if requested by the Design Professional or Owner, itemized in such form and supported by such evidence as the Design Professional or Owner may direct showing the Contractor’s right to the payment claimed on the periodical estimate.

c. Materials Storage.

i. If payments are made on account of materials delivered and suitably stored at the site but not incorporated in the work, they shall, if required by the Owner or the Design Professional, be conditional upon submission by the Contractor of bills of sale or such other procedure as will establish the Owner’s title to such material or otherwise adequately protect the Owner’s interest. The Contractor is responsible for the existence, protection, and, if necessary, replacement of materials until execution of the Certificate of Material Completion of the Design Professional. The Owner shall not pay for any materials stored off site.
ii. Should the Owner provide limited storage space in the work area, Contractor assumes full, complete and non-delegable responsibility for the security of the equipment so stored and for determining that the material stored in this area will not overload the floor system, if applicable. Any damage to the structure or area as a result of the Contractor overloading the structure or area shall be repaired by the Contractor at no cost to the Owner.

d. Progress Payments and Retainage.

i. The Owner shall make progress payments on account of the contract as follows: On or about the 15th day of each month 90 percent of the value, based on the contract prices, of labor and materials incorporated in the work and of materials suitably stored at the site thereof up to the 1st day of that month, as estimated by the Design Professional or Owner, less the aggregate of previous payments, until one-half of the contract sum is due.

ii. At any time after one-half of the contract sum, including change orders, becomes due and the work is: (1) on or ahead of the construction progress schedule; (2) there are no breaches of notices of non-complaint work; (3) there is no delinquency in the filing of the final breakdown and accounting, together with vouchers, on force account work as referred to in Article A-49 of the General Conditions; and (4) there are no unsatisfactory performance evaluations, if the Contractor requests and the Owner and Design Professional approve, at their sole discretion, the sum being withheld as retainage will be converted to a lump sum and held by the Owner until final completion.

iii. No further retainage will be withheld by the Owner from payments to the Contractor unless the following deficiencies occur: (1) the percentage of work complete falls behind the percentage required by the construction progress schedule by as much as 15 percent, or; (2) the Contractor fails to cure a notice of non-compliant work or; (3) there are additional unsatisfactory performance evaluations, or; (4) the Contractor becomes delinquent in regard to the filing of the final breakdown and accounting, together with vouchers, on force account work as referred to in Article A-49 of the General Conditions. In such event or events the Owner shall reinstate the 10 percent retainage on all periodical estimates due to be paid while one or more of the events continues to exist. The Contractor will be given written notice of the reinstatement of the retainage.

iv. If the Contractor (1) recovers all lost time and puts the work back on schedule; and (2) remedies all breaches of notices of non-complaint work; and (3) corrects the deficiencies which caused the unsatisfactory performance evaluations, and (4) supplies a proper breakdown and accounting on force account work, then the sums withheld while either or all of the events existed will be converted to an additional lump sum and held by the Owner until final completion, and no further retainage will be withheld unless any of the deficiencies recur, in which event or events the Owner shall reinstate the 10 percent retainage on all subsequent periodical estimates.

v. At the discretion of the Owner, the retainage of each subcontractor may be released separately as he completes his work. An application for release of a subcontractor’s retainage shall bear the original certificate of the subcontractor, the Contractor, and the Design Professional, if necessary, that the subcontractor’s work has been fully performed and that the sum for which payment is requested is due by the Contractor to the subcontractor. Checks releasing a subcontractor’s retainage shall be made payable to the Contractor, the Contractor’s surety, and the subcontractor and shall be mailed to the Contractor’s surety. This article does not create any contractual relationship between the Owner and the subcontractor or any duty of the Owner to any subcontractor. All warranties shall run from the date of the Certificate of Material Completion of the Design Professional and/or Owner unless otherwise expressly provided in the contract. Payments pursuant to this article shall in no way diminish, change, alter or affect the rights of the Owner under the Contract Documents.
A-59. Certificate of Payments

a. Issuance. If the Contractor has made application for payment, the Design Professional, Owner Representative, and/or Owner shall not later than the date when each payment falls due issue to the Contractor a certificate for such amount as he decides to be properly due or state in writing his reasons for withholding a certificate. Should the Contractor make the application for payment directly the Owner, then Owner shall issue payment for such amount to be properly due or state in writing his reasons for withholding payment.

b. Effect. No certificate issued, nor payment made to the Contractor, nor partial or entire use or occupancy of the work by the Owner, shall be an acceptance of any work or materials not in accordance with the Contract Documents. The making of the final payment shall constitute a waiver of all claims by the Owner other than those arising from unsettled liens, from faulty work appearing after final payment, or from requirements of the specifications or drawings. Acceptance of the final payment shall operate as and shall be a release to the Owner from all claims of any kind or character under the contract except for such specific amount or amounts as may have been withheld to cover the fair value of any incomplete work which has been certified by the Design Professional as incomplete through no fault on the part of the Contractor.

c. Date and Rate of Payment. Progress payments will be made by the Owner to the Contractor in accordance with Article 58 above. Final payment will be made in accordance with Article 5 of the Contract. The date and rate of payment are subject to Article 60. Sums retained pursuant to the present article are and remain the property of the Owner until such time as the Contractor shall have become entitled to receive payment of such retainage by (a) furnishing the remainder of the quid pro quo under the contract and (b) complying in full with the terms of the contract.

A-60. Payments Withheld. The Design Professional or Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect the Owner from loss on account of:

a. Defective work not remedied.
b. Claims filed or reasonable evidence indicating probable filing of claims.
c. Failure of the Contractor to make payments properly to subcontractor or for materials or labor.
d. A reasonable doubt that the contract can be completed for the balance then unpaid.
e. Damage to another contractor or to some third party.
f. Failure to maintain a rate of progress in accordance with the construction progress schedule.
g. Failure to supply enough skilled workmen or proper materials.

When the above grounds are removed, payment shall be made for amounts withheld because of them. At the option of the Owner adherence to the construction progress schedule shall be a condition precedent to the right of the to demand payment of a periodical estimate. No omission on the part of the Owner to exercise the aforesaid option shall be construed to be a waiver of breach of the construction progress schedule or acquiescence therein, and the Owner may exercise its option from time to time and as often as may be expedient.

A-61. Liens. Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the Owner a complete release of all liens or claims arising out of this contract, or receipts in full in place thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all labor and materials for which a lien or claim could be filed; but the Contractor may, if any subcontractor or claimant refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner to indemnify the Owner against any lien or claim. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all moneys that the latter may be compelled to pay in discharging such lien or claim, including all costs and a reasonable attorney's fee.
A-62. **The Owner’s Right to Do Work.** If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this contract, the Owner, after three days’ written notice to the Contractor may without prejudice to any other remedy he may have (including without limitation remedies against the Contractor’s surety), make good the deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor, provided, however, that the Design Professional shall approve the amount charged to the Contractor.

A-63. **Defective Work.** If the Contractor fails to correct defective Work or persistently fails to carry out the Work in accordance with the Contract Documents, the Owner, by written order, may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

A-64. **Owner’s Right to Terminate Contract.**

a. **Termination for Cause.** If the Contractor defaults or persistently fails or neglects to carry out the Work in accordance with Contract Documents or fails to perform any provisions of the Contract, the Owner may, after seven (7) days written notice to the Contractor and without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor or, at its option that sufficient cause exists to justify such action, may terminate the Contract and take possession of the site and of all materials, equipment, tools and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method it may deem expedient, and if the unpaid balance of the Contract Sum exceeds the expense of finishing the Work, such excess shall be paid to the Contractor, but if such expense exceeds such unpaid balance, the Contractor shall pay the difference to the Owner.

b. **Termination for Convenience.** The Owner may at any time, and for any reason or without any reason or cause, terminate this Contract by written notice to the Contractor specifying the termination date, without cause and irrespective of whether or not Contractor is in default of any of its obligations hereunder. The effective date of termination shall not be earlier than seven days from the date of confirmed receipt of the written notice. If the Owner terminates the Contract the Contractor shall: (i) stop the Services or the Work (as applicable); (ii) place no further orders or Subcontracts for materials, labor, services or equipment; and (iii) terminate all material and equipment orders and Subcontracts to the extent terminable (unless otherwise directed by Owner in writing) and advise Owner of all materials, equipment and other items which cannot be canceled or which are already delivered and allow Owner to participate in the salvage or disposition thereof. Contractor shall, as soon as practical after receiving notice of termination, submit to Owner an Application for Payment for all services performed through the date of receipt of the notice of termination, for which payment has not been previously made pursuant to the terms of this Contract.

A-65. **Contractor’s Right to Stop Work or Terminate Contract.** If the Owner fails to make payment for a period of fifteen (15) days after receipt of proper pay request, the Contractor may, upon seven (7) additional days written notice to the Owner, terminate the Contract and recover from the Owner payment for all Work executed.

A-66. **Notice of Readiness for Final Inspection.** When the Contractor is ready for a final inspection, he shall give notice to the Design Professional and/or the Owner in the following words:

“The work on the contract for the [show name of improvement or project as it appears in the contract] having been fully completed except as stipulated hereinbelow, it is requested that a final inspection be made promptly by the Design Professional or the applicable authorities in accordance with Article 5 of the contract. The following work is incomplete through no fault of the
Contractor [list any work which the Contractor regards as a proper exception under Subparagraph (d) of Article 5 of the contract]"

No final inspection shall be made until such time as the Design Professional or Owner has received a letter in the exact form indicated above. In the event the Contractor shall have issued the “Notice of Readiness for Final Inspection” prematurely [hereinafter referred to as “false start”] he shall be liable for the damage resulting from the aforesaid false start including but not limited to the salaries, professional fees, and travel and living expenses of the persons or parties inconvenienced by the aforesaid false start. The Contractor agrees that he may not defend or excuse any deviation from the Contract Documents on the ground (a) that the deviation was not brought to his attention by another person or party or other persons or parties or (b) that a subcontractor is or subcontractors are at fault.

A-67. **Operation and Maintenance Data and Instructions.** Prior to Material Completion, if applicable, the Contractor shall furnish, in three ring binders, advance copies of proper written instructions to the Owner concerning operation and maintenance of all mechanical, electrical and other operating systems and equipment. The Contractor shall provide training in the operation and maintenance of all mechanical, electrical and other operating systems and equipment in the presence of the Design Professional and the Owner and shall give notice in writing to the Design Professional and Owner at least fifteen days prior to the date on which it proposes for the training.

A-68. **Reserved.**

A-69. **Marked-up Construction Documents.** Prior to demand for payment of retainage, if applicable, the Contractor shall provide a complete set of Marked-up Construction Documents to the Design Professional, which set shall reflect all changes caused by addenda, field changes, Change Orders, or observed changes by the Contractor or subcontractor(s) for the purpose of the Design Professional’s issuance of Record Documents to the Owner.

A-70. **Affidavits.** Before receiving any portion of the retainage, the Contractor will be required to furnish a non-influence affidavit in the exact form as shown in Exhibit A and a statutory affidavit in the exact form as shown in Exhibit B.

A-71. **Material Completion.** Material Completion is when the Work or designated portion thereof is complete in accordance with the Contract Documents so that the Owner can occupy and utilize the Work for its intended use. All final documents (certificates, warranties, guarantees, manuals, instructions, documents required by the Contract Documents) as required are due at Material Completion. Material Completion shall also require complete operation of all applicable building systems included in the Work, including but not limited to, mechanical, electrical, plumbing, fire protection, fire alarm, telecom, data, security, elevators, life safety and accessibility. The Work shall be complete except for Minor Items or Permitted Incomplete Work.

a. **Minor Item Defined.** A Minor Item is a portion or element of the Work:

   i. that can be totally complete within thirty (30) days; and

   ii. that can be completed while the Owner occupies the Work without impeding or interfering with either the Owner’s use and occupation of the Work or the Contractor’s ability to complete the Minor Item; and

   iii. that will not interfere with the complete use and enjoyment of the project by the Owner.

b. **Permitted Incomplete Work Defined.** Permitted Incomplete Work is work that is incomplete through no fault of the Contractor, as determined by the Owner, including, but not limited to, incomplete work due to failure of separate contractors to complete work, and the like.
A-72. **Effect of Achieving Material Completion.** Upon the date when Material Completion is achieved, the following matters are conclusively determined:

a. The Owner may immediately occupy and secure the Work without restriction.

b. All warranties begin to run from the date Material Completion is achieved.

c. The Owner is responsible for all insurance for the Project.

d. The Liquidated Damages daily rate is reduced to zero.

e. The Contractor may request payment of the remaining contract balance, including retainage, less amounts credited by the Owner or incurred as liquidated damages, and less amounts withheld for the punchlist by reason of Minor Items or Permitted Incomplete Work.

A-73. **Reserved.**

A-74. **Warranty and Guaranty.** The Contractor warrants and guarantees that all work executed under the Contract Documents shall be free from defects of materials or workmanship for a period of one year from the date of Completion. All written guarantees or warranties as called for in the specifications shall specify the term and contact information for enforcement and shall be in such form as to permit direct enforcement by the Owner against any Trade Contractor, subcontractor, materialmen, or manufacturer related to the guarantee. The effective date of all warranties and guarantees shall be the date of the Certificate of Material Completion. Warranties, guarantees, and manufacturer’s certificates shall be provided to the Owner in a three ring binder(s) with a summary list of contents.

A-75. **Correction of Work after Final Payment.** Neither (1) the Certificate of Material Completion, (2) nor any decision of the Design Professional, (3) nor payment, (4) nor any provision in the contract shall relieve the Contractor of responsibility for faulty materials, faulty workmanship, or omission of contract work, and he shall remedy any defects or supply any omissions resulting therefrom and pay for any damage to other work resulting therefrom. The Owner shall give notice of observed defects or omissions with reasonable promptness. The Contractor shall within the space of time designated in the notice of non-compliant work and without expense to the Owner, correct, remedy, replace, re-execute, supply omitted work, or remove from the premises all non-compliant work noted by the Design Professional. The Contractor shall give prompt notice in writing to the Design Professional, with copy to the Owner, upon completion of the supplying of any omitted work or the correction of any non-compliant work. In the absence of said notice, it shall be and is presumed under this contract that there has been no correction of the non-compliant work or supplying of omitted work. If the Contractor does not remove, make good the deficiency, correct, or remedy faulty work, or supply any omitted work within the space of time designated in notice of non-compliant work without expense to the Owner, the Owner, after ten days’ notice in writing to the Contractor, may remove the work, correct the work, remedy the work or supply omitted work at the expense of the Contractor. In case of emergency involving health, safety of property, or safety of life the Owner may proceed at once. Correction of defective work executed under the plans and specifications or supplying of omitted work whether or not covered by warranty of a subcontractor or materialmen, remains the primary, direct responsibility of the Contractor. The foregoing obligation of the Contractor shall remain in effect until the same shall have been extinguished by operation of the statute of limitations. As additional security for the fulfillment of such obligation, but in no way limiting the same, the Contractor warrants and guarantees (1) that all work executed under the plans and specifications shall be free from defects of materials or workmanship for a period of one year from the date of the Certificate of Material Completion of the Design Professional, and (2) that for not less than one year from the date of the Certificate of Material Completion of the Design Professional, or for such greater space of time as may have been designated in the specifications, products of manufacturers shall be free from defects of materials and workmanship. Whenever written guaranties or warranties are called for, the Contractor shall furnish the aforesaid
for such period of time as may be stipulated. The aforesaid instruments shall be in such form as to permit direct enforcement by the Owner against any subcontractor, materialmen, or manufacturer whose guaranty or warranty is called for, and the Contractor agrees that:

a. The Contractor is jointly and severally liable with such subcontractors, materialmen, or manufacturers.

b. The said subcontractors, materialmen, or manufacturers are agents of the Contractor for purposes of performance under this article, and the Contractor, as principal, ratifies the warranties or guaranties of his aforesaid agents by the filing of the aforesaid instruments with the Owner. The Contractor as principal is liable for the acts or omissions of his agents.

c. Service of notice on the Contractor that there has been breach of any warranty or guaranty will be sufficient to invoke the terms of the instrument, provided that the Owner shall have furnished the Contractor with a copy of notice served on the subcontractor, materialmen, or manufacturer.

d. The Contractor will bind his subcontractor, materialmen, and manufacturers to the terms of this article.

The calling for or the furnishing of written warranties shall in no way limit the contractual obligation of the Contractor as set forth hereinabove. The remedies stated in this article are in addition to the remedies otherwise available to the Owner, do not exclude such other remedies, and are without prejudice to any other remedies.

A-76. Notification to Owner when Contractor Visits Site after Final Inspection.

a. When the Contractor’s representative visits the job site after the final inspection to perform specific work such as maintenance service, seasonal balance, or to correct a deficiency, the Contractor shall notify the Owner not less than 48 hours prior to the date on which they will visit the site, except under an emergency condition.

b. The Contractor shall visit the designated office of the Owner to notify the Owner that the Contractor is on the site prior to visit, thereby enabling the Owner representative to accompany the Contractor, should they so desire while the Contractor is on the project site.

c. A copy of the notification shall be provided to the Design Professional with the intent of the site visit. After the Contractor has completed the site visit, he shall give a written report to the Design Professional within five (5) days of the actions taken and any incomplete work yet to be performed.

A-77. Final Completion. Final Completion is the completion of all Work, including completion of all Minor Items and Permitted Incomplete Work as defined in Article A-71. Final Completion shall be evidenced by the Design Professional’s or Owner’s Certificate of Final Completion. Final Completion shall be obtained not later than thirty (30) days after the last stated completion dates of any Minor Items or Permitted Incomplete Work. The Design Professional’s or Owner’s Certificate of Final Completion shall not be issued until all Work is complete.

A-78. Payment for Final Completion. All amounts withheld from Payment for Material Completion and not credited to the Owner are payable upon receipt of final pay request from the Contractor. Final Payment shall be due 10 days after receipt by the Owner of the application for payment upon achievement and certification of Final Completion.
SECTION B
SUPPLEMENTARY GENERAL CONDITIONS

B-01.

B-02.
EXHIBIT A
NON-INFLUENCE AFFIDAVIT

COUNTY OF ________________________________

STATE OF ________________________________

I do solemnly swear on my oath that as to the contract dated ______________________, 20__________,

between ___________________________________________________________________________________ and

(NAME OF CONTRACTOR)

the Owner I have no knowledge of the exertion of any influence or the attempted exertion of any influence on the firm on behalf of

which this affidavit is made in any way, manner, or form in the purchase of materials, equipment, or other items involved in

construction, manufacture, or employment of labor under the aforesaid contract by any employee, officer, or agent of the Owner,

or any person connected with the State Government of Georgia in any way whatsoever.

This ________ day of __________________________, 20_______.

______________________________________________(L.S.)
Signature

______________________________________________
Title

______________________________________________
Firm

COUNTY OF ________________________________

STATE OF ________________________________

Personally before me, the undersigned authority, appeared _______________________________________

(NAME OF PERSON SIGNING THE AFFIDAVIT)

who is known to me to be an official of the firm of ________________________________ who, after being duly

(NAME OF CONTRACTOR)

sworn, stated on his oath that he had read the above statement and that the same is true and correct.

_________________________________________________
Notary Public

My Commission expires _____________________________

This______ day of ________________________________, 20____.
EXHIBIT B
STATUTORY AFFIDAVIT

COUNTY OF ______________________________ STATE OF ______________________

FROM: __________________________________ Contractor

TO: __________________________________ Owner

Re: Contract entered into the _____ day of ______________, 20__, between the above-mentioned parties for the construction of Project No. ______________________ located at

____________________________________________

KNOW ALL MEN BY THESE PRESENTS:

1. The undersigned hereby certifies that all work required under the above contract has been performed in accordance with the terms thereof, that all materialmen, subcontractors, mechanics, and laborers have been paid and satisfied in full, and that there are no outstanding claims of any character [including disputed claims or any claims to which the Contractor has or will assert any defense] arising out of the performance of the contract which have not been paid and satisfied in full except as listed hereinbelow:

   [Instructions-ENTER THE WORD "NONE" OR LIST THE NAMES OF CLAIMANTS AND THE AMOUNT CLAIMED BY EACH]

2. The undersigned further certifies that to the best of his knowledge and belief there are no unsatisfied claims for damages resulting from injury or death to any employees, subcontractors, or the public at large arising out of the performance of the contract, or any suits or claims for any other damage of any kind, nature, or description which might constitute a lien upon the property of the Owner.

3. The undersigned makes this affidavit for the purpose of receiving final payment in full settlement of all claims against the Owner arising under or by virtue of the contract, and acceptance of such payment is acknowledged as a release of the Owner from any and all claims arising under or by virtue of the contract.

This ______ day of ____________________________, 20_____.

________________________________ (L.S.)
Signature

___________________________________________
Title

___________________________________________
Firm

COUNTY OF ______________________________ STATE OF ______________________

Personally before me, the undersigned authority, appeared __________________________________, who (NAME OF PERSON SIGNING AFFIDAVIT) is known to me to be an official of the firm of __________________________________ who, after being duly sworn, stated on his oath that he had read the above statement and that the same is true and correct.

___________________________________________ Notary Public, My commission expires _________________

This __________ day of _______________________________, 20__.
EXHIBIT C
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That (Legal Name and Address of Contractor!), as principal (hereinafter referred to as "Contractor"); and (Legal Title and Address of Surety) as surety (hereinafter referred to as "Surety"); are held and firmly bound unto the JEKYLL ISLAND STATE PARK AUTHORITY as Obligee (hereinafter referred to as "Owner"); in the amount of _____ DOLLARS ($ ____), to which payment Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bounden Principal has entered into a contract with the Owner bearing date of _____ for (Insert Name of Project) in accordance with drawings and specifications prepared by: (Insert Name of Architect), which said contract is incorporated herein by reference and made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Contractor shall promptly and faithfully perform and comply with the terms and conditions of said contract; and shall indemnify and save harmless the Owner against and from all costs, expenses, damages, injury or loss to which said Owner may be subjected by reason of any wrongdoing, including patent infringement, misconduct, want of care or skill, default or failure of performance on the part of said Principal, his agents, subcontractors or employees, in the execution or performance of said contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

1. The said Surety to this bond, for value received, hereby stipulates and agrees that no change or changes, extension of time or extensions of time, alteration or alterations or addition or additions to the terms of the contract or to the work to be performed thereunder, or the specifications or drawings accompanying same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change or changes, extension of time or extensions of time, alteration or alterations or addition or additions to the terms of the contract or to the work or to the specifications or drawings.

2. If pursuant to the Contract Documents the Contractor shall be declared in default by the Owner under the aforesaid Contract, the Surety shall promptly remedy the default or defaults or shall promptly perform the Contract in accordance with its terms and conditions. It shall be the duty of the Surety to give an unequivocal notice in writing to the Owner within twenty-five (25) days after receipt of a declaration of default of the Surety’s election either to remedy the default or defaults promptly or to perform the contract promptly, time being of the essence. In said notice of election, the Surety shall indicate the date on which the remedy or performance will commence, and it shall then be the duty of the Surety to give prompt notice in writing to the Owner immediately upon completion of (a) the remedy and/or correction of each default, (b) the remedy and/or correction of each item of condemned work, (c) the furnishing of each omitted item of work, and (d) the performance of the contract. The Surety shall not assert solvency of its Principal as justification for its failure to give notice of election or for its failure to promptly remedy the default or defaults or perform the contract.

3. Supplementary to and in addition to the foregoing, whenever the Owner shall notify the Surety that the Owner has notice that the Contractor has failed to pay any subcontractor, materialman, supplier, or laborer for labor or materials certified by the Contractor as having been paid for by the Contractor, the Surety shall, within 30 days of receipt of such notice, cause to be paid any unpaid amount for such labor or materials.

4. It is expressly agreed by the Principal and the Surety that the Owner, if he desires to do so, is at liberty to make inquiries at any time of subcontractors, laborers, materialmen, or other parties concerning the status of payments for labor, materials, or services furnished in the prosecution of the work.

5. The Surety agrees that other than as is provided in this bond it may not demand of the Owner that the Owner shall (a) perform any thing or act, (b) give any notice, (c) furnish any clerical assistance, (d) render any service, (e) furnish any papers or documents, or (f) take any other action of any nature or description which is not required of the Owner to be done under the Contract Documents.

6. No right of action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the legal successors of the Owner.

7. For the purposes of this bond, the name and address of the Authorized State of Georgia Licensed Agent to whom correspondence and telecommunications may be addressed and/or with whom business concerning this bond may be conducted will be as follows:

   Name:  Telephone:
Address:  
City:  
State:  
Zip Code:  

SIGNED AND SEALED THIS _____ DAY OF _______, 20___.

ATTEST  (Seal)  (Name of Contractor)

______________________________________________  By ______________________________
Secretary (Note 1)  By:

__________________________  __________________________
(Seal)  (Name of Surety) (Note 2)

By: ______________________________
(Title)
Resident Georgia Agent *

Note 1. Please apply seal of Corporation over Secretary’s Signature.
Note 2. Please apply seal of Surety and arrange for countersignature by a “Resident Georgia Agent” of Surety in order to comply with surety regulations of Georgia.

(*) Attach Power of Attorney
EXHIBIT D
PAYMENT BOND

THIS BOND IS EXECUTED TOGETHER WITH ANOTHER BOND IN FAVOR OF THE OWNER AS OBLIGEE CONDITIONED UPON PERFORMANCE OF THE CONTRACT

KNOW ALL MEN BY THESE PRESENTS:

That (Legal Name and Address of Contractor) as Principal (hereinafter referred to as the "Principal") and (Legal Title and Address of Surety) as Surety (hereinafter referred to as “Surety”), are held and firmly bound unto the Jekyll Island - State Park Authority as Obligee (hereinafter referred to as "Owner") for the use and benefit of claimants defined, hereinafter in the amount of: _____ DOLLARS ($_____) to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the above bounden Principal has entered into a contract with the Owner bearing date of _____ for (Insert Name of Project) in accordance with drawings and specifications prepared by: (Insert Name of Architect), which said contract is incorporated herein by reference and made a part hereof, and is hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials supplied in the prosecution of the work provided for in said Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. The said Surety to this bond, for value received, hereby stipulates and agrees that no change or changes, extension of time or extensions of time, alteration or additions or additions to the terms of the contract or to the work to be performed thereunder, or the specifications or drawings accompanying same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change or changes, extension of time or extensions of time, alteration or alterations or addition or additions to the terms of the contract or to the work or to the specifications or drawings.

2. A claimant is defined as any subcontractor and any person supplying labor, materials, machinery, or equipment in the prosecution of the work provided for in said contract.

3. Every person entitled to the protection hereunder and who has not been paid in full for labor or materials furnished in the prosecution of the work referred to in said bond before the expiration of a period of ninety days after the day on which the last of the labor was done or performed by him, or materials or equipment or machinery was furnished or supplied by him for which such claim is made, or when he has completed his subcontract for which claim is made, shall have the right to sue on such payment bond for the amount, or the balance thereof, unpaid at the time of the commencement of such action and to prosecute such action to final execution and judgment for the sum or sums due him; provided, however, that any person having direct contractual relationship with a subcontractor, but no contractual relationship express or implied with the contractor furnishing said payment bond, shall have the right of action upon the said payment bond upon giving written notice to said contractor within ninety days from the day on which such person did or performed the last of the labor, or furnished the last of the materials or machinery or equipment for which such claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished or supplied or for whom the labor was performed or done; provided further that nothing contained herein shall limit the right of action to said 90-day period. Notice may be served by depositing a notice, registered mail, postage prepaid, duly addressed to the contractor at any place he maintains an office or conducts his business, or his residence, in any post office or branch post office or any letter box under the control of the Post Office Department, or notice may be served in any manner in which the sheriffs of Georgia are authorized by law to serve summons or process. Every suit instituted under this section shall be brought in the name of the claimant without the Owner being made a party thereto. The official who has the custody of said bond is authorized and directed to furnish, to any person making application therefor who submits an affidavit that he has supplied labor or materials for such work and payment therefor has not been made, or that he is being sued on any such bond, a copy of such bond and the contract for which it was given, certified by the official who has custody of said bond; this copy shall be primary evidence of said bond and contract and shall be admitted in evidence without further proof. Applicants shall pay for such certified copies and such certified statements such fees as the official fixes to cover the cost of preparation thereof, but in no case shall the fee exceed the fees which the clerks of the superior courts are permitted to charge for similar copies.

4. No action can be instituted on this bond after one year from the date of the Certificate of Material Completion of the Design Professional.

5. Further, this bond shall be considered the same as a bond furnished under Section 13-10-1 et seq., of the Code of Georgia, as amended, and all provisions of law pertaining to bonds furnished under said Section shall pertain hereto.
6. For the purposes of this bond, the name and address of the Authorized State of Georgia Licensed Agent to whom correspondence and telecommunications may be addressed and/or with whom business concerning this bond may be conducted will be as follows:

Name:  
Telephone:  
Address:  
City:  
State:  
Zip Code:  

SIGNED AND SEALED THIS _____ DAY OF ______, 20____.

ATTEST  
(Seal)  
(Name of Contractor)

______________________________  
Secretary (Note 1)  

By______________________________  
President

(Seal)  
(Name of Surety) (Note 2)

By: ______________________________

(Title)
Resident Georgia Agent *

Note 1. Please apply seal of Corporation over Secretary's Signature.
Note 2. Please apply seal of Surety and arrange for countersignature by a “Resident Georgia Agent” of Surety in order to comply with surety regulations of Georgia.

(*) Attach Power of Attorney
**CONTRACTOR* AFFIDAVIT UNDER O.C.G.A. § 13-10-91(b)(1)**

Project No. and Name: _____

Contractor*: _____

STATE OF GEORGIA                      COUNTY OF: _____

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of (Insert Name of Owner) has registered with, is authorized to use and used the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. §13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

<table>
<thead>
<tr>
<th>Federal Work Authorization User Identification Number</th>
</tr>
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<tbody>
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<td></td>
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<table>
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<tr>
<th>Date of Authorization</th>
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</table>

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, 20____ in (City), (State).

________________________________________
Signature of Authorized Officer or Agent of Contractor

Printed Name and Title of Authorized Officer or Agent

**SUBSCRIBED AND SWORN BEFORE ME ON THIS THE_____ DAY OF ______________________, 20____**

Notary Public
My Commission Expires: ______________________

---

*For the purposes of this affidavit only, anyone under contract with the Owner (i.e. architects, engineers, consultants, etc) is deemed a “contractor.”*
EXHIBIT F
CHANGE ORDER SPECIMEN

DIRECTIONS TO DESIGN PROFESSIONAL OR CONTRACTOR:

Please prepare a change order in the form and wording given below, deleting inapplicable wording and adding such explanations as may be necessary. The wording in Paragraph 11 may not be changed or altered in any way by either the Design Professional or the Contractor. Send four copies, signed by you and the Contractor, to the Owner. Do not forward a change order unless it is accompanied by a breakdown that has been certified by the Owner’s Representative.

Date: __________________________
{Insert Agency Name and Address}

RE:
Project No. & Name of Project

Note to Design Professional/Contractor: (Please leave the Change Order number blank. A number will be assigned by the Owner and will be inserted in the blank space at the time of execution by the Owner.)

1. Submission of this change order for consideration was authorized by letter from the Owner dated ______________________, Incumbrance Record No. ____________.

   Note to Design Professional/Contractor: (No change order should be forwarded unless you have been furnished with a letter from the Owner authorizing it. Please follow suggestions issued to you earlier concerning the obtaining of a letter authorizing preparation of a change order.)

2. The changes hereinafter described are applicable to the contract for the construction of at ____________________, executed by and between the [insert name of Owner], Owner, and ______________, Contractor, dated ____________________.

3. Description of Change:

   Note to Design Professional/Contractor: (Be sure to give a complete statement describing the changes in the work, including the specifications. If drawings are necessary, refer to them by date, etc., and state they are made a part of the change order. Copy of drawings should be attached to the change order.)

4. This change order is deemed necessary and originated with the (Design Professional) (Owner) (Contractor).
Note to Design Professional/ Contractor:
(In preparing change order, delete inapplicable language appearing in parentheses.)

5. The change(s) is (are) necessary to:

Note to Design Professional/ Contractor:
(Give a complete description of conditions that make the change necessary.)

6. The amount of the change order was determined by:
   a. Estimate and acceptance in lump sum.
   b. Unit prices stated in contract or subsequently agreed upon.
   c. Cost and percentage as described in General Conditions.

Note of Design Professional/Contractor:
(Use applicable wording in preparing change order.)

7. A memorandum is attached showing cost breakdown of labor and materials by unit and quantities as prepared by the Contractor and same has been certified by the Owner’s Representative.

8. We have verified the fact that all quantities shown are accurate and do not exceed actual requirements. We have verified the fact that all prices are fair and equitable and do not exceed current costs for like services or materials.

Note to Design Professional/ Contractor:
(Please observe the fact that verification of quantities and prices means the Design Professional who signs the change order has personal knowledge that the quantities shown in the memorandum referred to under paragraph seven of the change order are correct, that he has personally satisfied himself that full credit has been extended for any work or materials omitted, and that he has conclusively established by such checking or inquiry as may be necessary that the prices and allowances shown in the memorandum are in line with current costs for like services and materials.)

9. The contractor shall be allowed _____ additional calendar days for completion.

Note to Design Professional/ Contractor:
(Please insert the number of additional days allowed, or if no additional time is allowed, insert the work "None").

10. The contract sum shall be (increased) (decreased) by __________ because of this change.

Note to Design Professional/
11. The payment and extension of time (if any) provided by this change order constitutes compensation in full on behalf of the contractor and its subcontractors and suppliers for all costs and markups, directly and indirectly attributable to the changes ordered herein, for all delays related thereto and for performance of changes within the time stated.

RECOMMENDED FOR OWNER’S ACCEPTANCE:  
Design Professional Firm
By:  
Supervising Design Professional’s Signature
Date: 

AGREED:  
GEORGIA {Insert Agency Name}
By:  
Director 
Date: 

APPROVED AND AGREED:

General Contractor  
Representative’s Signature 
Date: 

Contractor:  
(Please delete inapplicable language in parentheses and enter the amount for this change.)
EXHIBIT G

DESIGN PROFESSIONAL'S or OWNER'S
CERTIFICATE OF MATERIAL COMPLETION

Project No. and Name:  

Contractor:  

Design Professional or Owner:  

CERTIFICATE OF DESIGN PROFESSIONAL or OWNER:

The Design Professional or Owner issues this Certificate of Material Completion of the Project and certifies as follows. Any exceptions to the below statements shall be identified and explained in Paragraph 13 below:

1. Having conducted observations and evaluations of the work in the presence of representatives of the Design Professional, Owner and/or its major consultants, the referenced project has been determined to be fully constructed and completed in accordance with the Contract Documents and all applicable laws, ordinances, codes, rules and regulations on ______ (date of Inspection for Material Completion) with the exception of items shown on the attached Final Punch List [Notice of Non-Compliant Work No. _____].

2. The “work” includes all construction, documents, submissions, attic stock, certificates, reports (including initial HVAC test and balance report), warranties, Marked-up Construction Documents, Final Certification of Costs, etc., called for in the Contract Documents, including all addenda and change orders.

3. The Final Punch List specifies items that constitute either a Minor Item or Permitted Incomplete Work, as defined in the General Requirements, and also stipulates an estimated completion date for each.

4. There are no outstanding Notices of Non-Compliant Work which are not restated on the Final Punch List. Such items must qualify as a Minor Item or Permitted Incomplete Work.

5. The total contract sum as of the date of Material Completion through Change Order No. _____ is $0.00. The unpaid balance of the total contract sum (except as may be amended by future change orders) will be due and payable when all work has been fully completed and the contract fully performed at Project Final Completion.

6. There are no pending change orders resulting in credits or other credits due the Owner.

7. The amount to be withheld from Payment for Material Completion for each Minor Item or Permitted Incomplete Work as listed on the Final Punch List is $______. Dates for completion of each item of Permitted Incomplete Work are indicated on the Final Punch List.

8. All tests and inspections required by the Contract Documents have been made and were reviewed by a registered architect or registered engineer of the Design Professional. All work was found to meet or was brought into compliance to meet said tests and inspections in accordance with the Contract Documents.

9. No work has been certified for payment that was covered prior to consent of the Design Professional or Owner.

10. All mechanical systems, equipment, apparatus and controls, if any, have been started up, tested and inspected in the presence of a registered architect or registered engineer of the Design Professional, and have been found to be in safe operating condition, compliance with the Contract Documents and applicable codes.
11. All required operating instructions and maintenance manuals have been reviewed and approved for compliance with the Contract Documents by the Design Professional or Owner and transmitted to the Owner.

12. The State Fire Marshal has issued a Certificate (or Temporary Certificate) of Occupancy.

13. Exceptions (State Paragraph reference and explanation):  

This Certificate is executed by the Design Professional or Owner this _____ day of _____, 20__.

______________________________________________
(Name of Design Professional Firm or Owner)

By: _______________________________   _____   ___
(License Number and State)

Printed Name: _____
Title: _____
EXHIBIT H

DESIGN PROFESSIONAL’S or OWNER’S CERTIFICATE OF FINAL COMPLETION

Project No. and Name: 

Design Professional or Owner: 

CERTIFICATE OF DESIGN PROFESSIONAL or OWNER:

The Design Professional or Owner issues this Certificate of Final Completion of the Project and certifies as follows. Any exceptions to the below statements shall be identified and explained in Paragraph 10 below:

1. Having conducted observations and evaluations of the work in the presence of representatives of the Design Professional, Owner and/or its major consultants, the referenced project has been determined to be fully constructed and completed in accordance with the Contract Documents and all applicable laws, ordinances, codes, rules and regulations on (date of Inspection for Final Completion) including all items shown on the Final Punch List [Notice of Non-Compliant Work No. _____].

2. The “work” includes all construction, documents, submissions, attic stock, certificates, reports, warranties, Marked-up Construction Documents, Final Certification of Costs, etc., called for in the Contract Documents, including all addenda and change orders.

3. There are no outstanding Notices of Non-Compliant Work.

4. The total contract sum as of the date of Final Completion through Change Order No. _____ is $0.00.

5. There are no pending change orders resulting in credits or other credits due the Owner.

6. All tests and inspections required by the Contract Documents have been made and were reviewed by a registered architect or registered engineer of the Design Professional. All work was found to meet or was brought into compliance to meet said tests and inspections in accordance with the Contract Documents.

7. No work has been certified for payment that was covered prior to consent of the Design Professional.

8. All mechanical systems, equipment, apparatus and controls have been started up, tested and inspected in the presence of a registered architect or registered engineer of the Design Professional, and have been found to be in safe operating condition, compliance with the Contract Documents and applicable codes. All required operating instructions and maintenance manuals have been reviewed and approved for compliance with the Contract Documents by the Design Professional and transmitted to the Owner.

9. The State Fire Marshal has issued a Certificate (or Temporary Certificate) of Occupancy.
10. Exceptions (State Paragraph reference and explanation): _____

This Certificate is executed by the Design Professional or Owner this _____ day of _____, 20__.

_____ (Name of Design Professional Firm or Owner)

By: ___________________________ _____________ (License Number and State)

Printed Name: _____
Title: ______
J EKYLL ISLAND
PHASE 2 SHORELINE
REHABILITATION PROJECT

SECTION D

TECHNICAL SPECIFICATIONS

GENERAL PROJECT REQUIREMENTS
ENVIRONMENTAL PROTECTION
ROCK REVETMENT
BEACH AND DUNE FILL
SAND-FILLED GEOTEXTILE TUBE
SECTION 01000
GENERAL PROJECT REQUIREMENTS

PART 1 – GENERAL

1.1 GENERAL

A. All work shall be conducted under the observation of the Owner’s Representative, designated by the Owner in the Agreement. The Owner’s Representative may direct the Engineer to conduct site visits and coordination with Contractor from time to time as construction proceeds, and the Engineer shall have same access privileges as the Owner’s Representative. The Owner’s Representative shall have free access to any and all parts of the Work at any time. Contractor shall furnish Owner’s Representative with such information as may be necessary to keep him fully informed regarding progress and manner of work and character of materials. Presence of the Owner’s Representative on site shall not relieve Contractor from any obligation to fulfill this Contract.

B. The Contractor shall be required to conduct the Work in such manner as to obstruct traffic and public access to the beach, outside the immediate limits of work, as little as possible.

1.2 OBSERVATION AND COMMUNICATION

A. The Contractor shall have available, at the request of the Owner’s Representative, the use of equipment and personnel as may be necessary in checking and inspecting the Work.

B. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Owner and the cost thereof will be deducted from any amounts due or to become due the Contractor.

C. Communication among the Contractor’s field foremen and superintendents shall be continuous through the use of hand held two-way radios, cellular phones, etc. In the event of any significant problems, the Contractor shall notify the Owner’s Representative and develop recommended actions.

D. The Contractor shall maintain a construction office within the general vicinity of the project work area for the duration of the project. This office shall be open and attended at least during normal daytime working hours. Temporary power and water shall be the responsibility of the Contractor.

E. If during construction, the Contractor observes items that may have historical or archaeological value, such observations shall be reported immediately to the Owner’s Representative so that the appropriate authorities may be notified. A determination will be made as to their significance and what, if any, special disposition of the finds. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent employees from trespassing on, removing, or otherwise damaging such resources.

1.3 CONTRACTOR’S SURVEY AND LAYOUT OF WORK

A. The Contractor shall complete the layout of the work from the monuments, control data, and elevations established by the Owner. The Contractor shall use the reference points established by the Owner as the basis for the horizontal and vertical control systems.

B. The Contractor shall furnish, at his own expense, such stakes, templates, platforms, equipment, tools and material, and all labor as may be required in laying out any part of the work from the benchmarks, control data, and elevations established by the Owner. It shall be
the responsibility of the Contractor to protect and maintain all permanent and temporary benchmarks, stakes and other markers established by the Owner and Contractor throughout the construction of the project unless authorized to remove them by the Owner’s Representative. If the benchmarks or temporary markers are destroyed or damaged by the Contractor prior to their authorized removal, at the discretion of the Owner’s Representative the benchmarks or temporary markers shall be replaced, and the cost deducted from any amounts due or to become due to the Contractor.

C. The Contractor shall be responsible for all measurements that may be required for the execution of the work, subject to modifications that the Owner’s Representative may require to meet changes in conditions at the work site. All temporary markers and stakes placed by the Contractor must be removed upon completion of the project.

1.4 CONTRACTOR’S INDEPENDENT SURVEYOR

A. The Contractor shall contract directly with a Georgia licensed and independent Professional Surveyor. The independent surveyor shall perform all setting out, surveys used to substantiate quantities for payment/acceptance, and as-built surveys. It will be the Contractor’s responsibility to coordinate and provide all pre- and post-construction surveys, as well as progress surveys required to conduct the Work and required for pay application and final acceptance. The Independent Surveyor and Owner’s Representative should be notified a minimum of 48 hours prior to the desired time of survey.

1. Minimum Standards: All surveys shall be performed according to Georgia State Board of Land Surveyors Minimum Technical Standards for the applicable type of survey being conducted, unless otherwise indicated in the Technical Specifications and Drawings. Survey datums and units shall be as indicated on the Drawings.

2. If Contractor’s pre-construction surveys indicate significant changes to existing, pre-construction elevations relative to those indicated on the Bid Drawings, Owner reserves the right to adjust the template lines and grades to ensure the project quantities and costs are within contracted amounts. Pre-construction surveys shall not be taken more than 30 days prior to placement of sand or rock materials on Jekyll Island.

3. All setting out, progress, and payment survey data collected by the Contractor shall be provided to the Owner and Engineer in digital ASCII XYZ format, at a minimum. AutoCAD files with survey data may also be provided.

B. The Owner reserves the right to conduct any supplemental surveys to verify/confirm Contractor’s surveys.

1.5 DRAWINGS AND DOCUMENTS

A. A minimum of one (1) complete set of Drawings and Documents (with permits) shall be kept in the Contractor’s field office at all times during project construction.

B. The Contractor shall maintain a separate set of full-size Drawings, marked up in red, to indicate current, as-built conditions. These drawings shall be maintained at or near the site in a current condition at all times until completion of the work. These drawings shall be available for review by the Owner’s Representative at all times. All variations from the Drawings, for whatever reason, including those occasioned by modifications, optional materials, and the required coordination between trades, shall be indicated. These variations shall be shown in the same general detail utilized in the Drawings. The marked-up drawings may be utilized for preparation of the as-built drawings, but may not be substituted for the as-built drawings.
1.6 AS-BUILT DRAWINGS

A. At the completion of the Work, the Contractor shall submit to the Owner’s Representative, a set of as-built drawings and all supporting survey data used to compile the as-built drawings. The Contractor will also provide any CAD files created in preparation of the as-built drawings. This information must be submitted to the Owner’s Representative within fourteen (14) calendar days of the completion of the Work.

B. The Contractor shall sign the as-built drawings in the following manner: “I CERTIFY THAT THESE DRAWINGS INDICATE CONSTRUCTION AS ACTUALLY PERFORMED AND ARE AN ACCURATE REPRESENTATION OF THE SPECIFIED WORK.” The Owner reserves the right to withhold final payment until acceptable as-built drawings have been submitted.

1.7 CONTRACTOR QUALITY CONTROL (CQC) PLAN

A. The Contractor must submit a Contractor Quality Control Plan within 15 days of NTP that will contain as a minimum the following criteria:

B. The CQC Plan is the means of assuring that all items of work are in conformance with the drawings and specifications, and describes the Contractor’s inspection and test procedures. The Contractor shall establish and maintain a quality control system for all work to assure compliance with contract requirements and record his inspections and tests under this system, including but not limited to the following:

1. Contractor will be required to prepare and maintain a daily report of operations and furnish copies thereof to the Owner’s Representative. A daily report form shall be submitted for review and approval. The form shall at minimum include: a daily equipment report, personnel working, work performed, report weather and significant occurrences. Construction delays, communications, environmental site conditions, testing performed, and change directives shall be summarized on the Daily Report.

3. Take daily progress surveys to assure required lines and grades are being met, desired slopes are being obtained, construction is located in proper positions and elevations, etc.

4. Contractor shall be responsible to ensure that any stockpiled or excavated material and staged construction materials are not allowed to flow or extend outside the designated work areas.

5. Contractor shall monitor any required temporary excavations and dewatering areas. Any open excavations and dewatered areas shall be property shored/braced and marked to prohibit access by non-project personnel.

6. Personnel shall be assigned, or designated, by each subcontractor to perform inspections and control the quality of the work as required. These personnel shall be other than those performing the work being inspected. Qualifications of all quality control personnel must be included in the CQC Plan. Quality Control Personnel may be designated from positions such as the Project Owner’s Representative, Project Superintendent, non-working foreman or specific quality control representative. Quality control representation must be continually available to oversee field operations.

1.8 CONSTRUCTION SCHEDULE

A construction schedule is to be submitted by the Contractor per the following:
A. The Contractor is required to prepare in advance and submit at the time of the project preconstruction meeting a detailed critical path method (CPM) project schedule in Owner approved software. This schedule is subject to the review and acceptance of the Owner’s Representative.

B. The schedule shall show a complete sequence of construction activities, including submittals, reviews, procurement of materials, inspections and surveys, identifying work for the complete project in addition to work requiring separate stages, as well as any other logically grouped activities. The schedule shall indicate the early and late start, early and late finish, major construction milestones, materials and equipment manufacture and delivery, logic ties, float dates, and duration. Critical path for each identified project milestone, as well as the overall project, shall be included.

C. The Contractor shall revise and resubmit for approval the schedule as required by the Owner’s Representative when progress is not in compliance with the original schedule. The prime contractor shall submit revised project schedules with each and every application for monthly progress payment identifying changes since the previous version of the schedule.

D. The schedule shall indicate estimated percentage of completion for each item of work at each and every submission.

E. The failure of the Contractor to submit, maintain, or revise the aforementioned schedule shall enable the Owner, at its sole discretion to withhold up to 20% of the monthly progress payment otherwise due and payable to the Contractor until the schedule has been submitted to and accepted by the Owner’s Representative as to completeness and conformance with the required provisions.

F. No changes shall be made to the construction schedule without the prior written approval of the Owner’s Representative. Any progress payments made after the scheduled completion date shall not constitute a waiver of this paragraph or any damages.

G. The Contractor shall submit monthly to the Owner’s Representative an updated CPM schedule and narrative report. The report shall identify potential problem areas; current and anticipated delaying factors and their impact; actions taken or proposed; proposed changes in CPM schedule logic; out of sequence work; and any other topics related to job progress or scheduling. The Contractor shall update the most recent schedule to incorporate all current schedule information, including actual progress, approved adjustments of time and proposed changes in sequence and logic.

H. Progress status shall be evaluated by the activities on the critical path at the time of updating. If the current updated CPM schedule indicates that the contract progress is 10 days or more behind the planned schedule, as determined by the Owner’s Representative, the Contractor shall submit to the Owner’s Representative a revised CPM schedule with an explanation of corrective action to be taken or proposed by the Contractor to complete the project within the time specified. Negative float indicates the activities are behind schedule and positive float indicates status ahead of schedule or a non-critical activity.

I. If the Contractor or the Owner’s Representative considers that an accepted or anticipated change will impact the critical path or contract progress, a schedule analysis and revised CPM schedule supporting the proposed adjustment of time shall be submitted to the Owner’s Representative for discussion, review and acceptance. All changes shall be shown as separate activities or groups of activities and entered into the relevant part of the accepted network schedule current at the time of change. If such a revision is not available, the Owner’s Representative may, at his option, construct and utilize the project as-built schedule, or other recognized method of delay impact analysis. In case of a deductive change reducing the
quantity of work to be done under affected activities, the estimated duration of these activities shall be adjusted to reflect the reduced quantities of work. The Contractor shall submit a written report, describing the adjustments and reasons for the adjustments, and the impact of the changes.

J. Changes or delays that do not affect the controlling operation or operations on the critical path will not be considered as the basis for a time adjustment. Changes or delays that do affect the controlling operation or operations on the critical path will be considered in granting an extension of time for completion of the contract only if the total float is absorbed by the delay.

1.9 WORK HOURS

A.

1.9 CONTINUATION OF WORK

A. All work shall continue until: (1) progress has reached substantial completion for the project; or (2) the Owner has issued an order to the Contractor to cease operations.

1.10 SUBMITTALS

A.

B. Unless noted otherwise, submittals shall be made to the Owner’s Representative designated in the Agreement. The Owner’s Representative will distribute necessary technical submittal items to the Engineer for review and action. The Owner’s Representative or Engineer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections.

C. Make submittals with the format and quantity as agreed with the Owner’s Representative prior to Construction. Owner’s Representative’s review actions notations will appear on all submittals by Contractor when returned by Owner’s Representative. Possible review status designations by the Owner’s Representative are defined as follows:

1. NO EXCEPTION TAKEN - signifies that content of the submittal conforms to the design concept, complies generally with the intent of the Contract Documents, and is approved for incorporation in the Work. Contractor is authorized to proceed with fabrication or procurement of the items and with related work covered in the submittal.

2. FURNISH AS CORRECTED - signifies content of the submittal conforms to the design concept, complies generally with the intent of the Contract Documents, and is approved for incorporation in the Work in accordance with Owner’s Representative’s notations, provided that the Contractor takes no exception to the notations. Contractor is to proceed with fabrication or procurement of the items and with related work in accordance with Owner’s Representative’s notations.

3. REVISE AND RESUBMIT – signifies that content of the submittal appears to conform with the design concept and comply with the intent of the Contract Documents, but information is either insufficient in detail or contains discrepancies which prevent Owner’s Representative from completing his review. Contractor is to resubmit revised information responsive to Owner’s Representative’s annotations on the returned submittal or written in the letter of transmittal. No work shall proceed for this item until resubmittal is accepted.
4. **REJECTED** - signifies submittal is incomplete or does not conform to the design concept or comply with the intent of the Contract Documents. No work shall proceed for this item until resubmittal is accepted. Contractor shall resubmit rejected compliance submittals that are responsive to the Contract Documents.

5. **REVIEW NOT REQUIRED** - signifies submittals which are not required by the Contract and considered for supplementary information only. Owner’s Representative may review such submittals for general content, but not for substance. A copy will be included in the project file for information only.

D. Submittals must be included in the CPM activity analysis. Contractor must allow ample time for the review process of a submittal (a minimum of 7 business days) and lead time to procure materials for incorporation into the work. Within 15 days after Notice To Proceed, the Contractor shall develop a Submittal Register for acceptance by the Owner’s Representative. The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the scheduled submittal date shown on the approved Submittal Register.

E. The Contractor shall submit all items listed on the Submittal Register. The Owner’s Representative may request submittals in addition to those listed on the Submittal Register.

F. The Contractor shall complete "contractor schedule date" column and return two (2) completed copies of the Submittal Register to the Owner’s Representative for acceptance within 15 calendar days after Notice to Proceed for acceptance. The accepted Submittal Register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

1.11 **CLIMATIC CONDITIONS**

A. The project area is subject to tropical storms and hurricanes from June through November, and to windy and rainy weather, including severe electrical storms and other sudden and locally severe meteorological occurrences that approach hurricane conditions, during any time of the year. The Contractor shall maintain full-time monitoring of the marine weather broadcasts and other local commercial weather forecasting services that may be available. It shall be the Contractor’s responsibility to obtain information concerning rain, wind, water level, and wave conditions that could influence his construction operations prior to making a bid.

B. Water levels in the project area are primarily affected by tidal fluctuations of the Atlantic Ocean. The project area is also subject to storm surges and wave and wind setup due to hurricanes, tropical storms, and extratropical storms. Local estimated tidal ranges and datums for Jekyll Island beach and Jones Oysterbed Island borrow area vicinity are shown on the Drawings.

C. Waves at Jekyll Island beach may be locally generated wind waves or ocean swell, and may come from any direction and overtop the existing revetment and inundate the work area landward of the revetment during higher tide stages. Much of the project area beach is subject to inundation during higher normal tidal stages. Waves at the Jones Oysterbed Island borrow area and borrow area material transfer point at Clam Creek on Jekyll Island will be primarily due to passing vessel waves. It is noted that vessel traffic may range from small recreational craft to fishing vessels and large commercial vessels.

1.12 **SEVERE STORM AND HURRICANE PLAN**

A. The Contractor shall maintain full-time monitoring of the local and regional weather broadcasts, and avail themselves of such other local commercial weather forecasting services as may be
available. These information broadcasts shall be the Contractor’s primary source in the decision process to implement action under the approved storm plan.

B. The Contactor shall notify the Owner at the time of any decision to move equipment in preparation for potential storms. The Contactor shall be responsible for acquiring approval for the use of any safe harbors or vessel staging areas from local authorities and/or the U.S. Coast Guard. The Contactor shall include the following information in the hurricane and storm procedures:

1. Weather Conditions for Suspending Operations: The Contactor shall provide a list of the equipment scheduled for use on this project and specify the conditions (e.g. wind speed, wave height, etc.) under which operations will be suspended and equipment will be secured.

2. Prioritized Methods for Storm Preparations: The Contactor shall provide a prioritized list of actions to be taken in the event of a severe storm and assign personnel to each action. The Contactor shall specify how each piece of equipment will be secured in place or moved to a safe harbor including the details of all equipment necessary (e.g., tugs: size, capacity; number; work boats: size, capacity, number; storm anchors: type, size, number; chain or line: size, lengths; etc.).

3. Personnel Evacuation: The Contactor shall provide a plan for evacuation of personnel including their responsibilities prior to evacuation, methods of transportation, alternate accommodation, etc.

4. Emergency Response for Equipment Failure: The Contactor shall specify emergency operating procedures to be implemented in the event of mooring equipment failures during sudden and severe adverse weather or any other conditions. These procedures shall include actions to be taken in response to loss of a spud(s), swing wires, anchor wires, or other mooring equipment or facilities.

C. The Contactor shall submit a Hurricane and Severe Storm Plan within ten (10) calendar days after the Notice of Award and prior to the pre-construction conference. This plan shall include but not be limited to the following:

1. Types of storms possible (winter storm, tropical storm, hurricane, and tornado).

2. Time intervals before storms strike the project area when action will be taken and details of the actions to be taken. The plan should be specific as to what weather/wave conditions will require work shutdown, removal of any equipment, etc.

3. List of the equipment to be used on the job and its ability to handle adverse weather and wave conditions.

4. List of safe harbors or anchorages, the proposed equipment to be used to move to such locations, distance from the work area to these locations, and the time required to move the equipment to these locations. Copies of letters of approval for the use of these locations (local authorities, U.S. Coast Guard, etc.) where applicable.

5. Methods of securing equipment not moved; i.e., spudded temporary barges, earthmoving equipment, etc.

6. Operating procedures to be undertaken when waterborne equipment fails during sudden and severe adverse weather conditions, to include breaking of spuds or other mooring equipment or facilities.
1.13 NON-CONFORMING WORK
A. The Contractor shall remove and replace any work not conforming to the Drawings or Specifications upon written order by the Owner’s Representative. Any cost caused by reason of this non-conforming work shall be borne by the Contractor.

1.14 SAFETY, ACCIDENT PREVENTION AND FIRST AID PLAN
A. The Contractor is responsible for maintaining a safe work environment and is responsible for all health and safety measures. The Contractor is referred to the USACE EM 385-1-1 (2014) US Army Corps of Engineers Safety and Health Requirements Manual and applicable OSHA standards.
B. The Contractor shall submit an Accident Prevention and First Aid Plan to the Owner’s Representative 15 days prior to commencement of construction.

1.15 EMERGENCY RESPONSE PLAN
A. The Contractor shall submit an Emergency Response Plan to the Owner’s Representative 15 days prior to commencement of construction. The plan must include at a minimum:
   1. A site description and evaluation
   2. Assessment and risk analysis
   3. Emergency equipment available
   4. Medical equipment and personnel available
   5. Clean up procedures

1.16 PRE-CONSTRUCTION MEETING
A. Prior to commencement of construction, Contractor shall attend a pre-construction meeting and meet with representatives of regulatory agencies, the Owner, and Engineer. Contractor’s designated superintendent shall be present at the pre-construction meeting. Prior to the Pre-Construction meeting, Contractor shall submit for the Owner’s and Engineer’s approval, an Operations Plan which shall describe the following in detail, including as a minimum, the Contractor’s proposed CQC Plan and Schedule, plus the following:
   1. Order of Work,
   2. Anticipated schedule, including identification of specific areas to be used for equipment access, mobilization, temporary staging of material and equipment storage, transport routes for equipment, and locations for transition of rock delivery from source to the site.
   3. Any pertinent information and testing data for construction materials and sources.
   4. Method to be used by the Contractor to demonstrate chain of custody of rock from the quarry to construction.
   5. Method to be used by the Contractor to demonstrate chain of custody of sand from the upland source to the construction site.
6. Number and qualifications of personnel to be used.

7. Specific methods to be used in establishing horizontal and vertical control for staking out the Work.

8. Specific detailed description of the construction procedure to be followed, including but not limited to: excavation and borrow area work plan, method of delivery of materials including rock and sand from source to project site, placement of temporary structures or materials to be used during construction, and specific procedures to be used for installation and monitoring of placed materials.

9. Identification of vehicles and process to be followed, including temporary staging of debris and materials to be removed and transported off site.

10. Description of all transport routes and areas to be used during construction.

11. Description of proposed access point improvements and protections in accordance with permit requirements and requirements of the Specifications. Description of specific measures for protection of underground utilities at access points.

12. Description of a public safety plan describing methods to be used by contractor to maintain a safe work area and keep the public out of the Work Area, such as erection of fencing and having a spotter ahead of any heavy equipment work and traversing the beach outside the immediate Work area, such as when mobilizing and demobilizing.

13. Subcontractors and vendors to be used with the name and phone number of the relevant Points of Contact. This includes any third party monitoring requirements of the Contractor.

14. A form to be used for Daily Report of Construction Operations which will also serve as documentation of quality control. The Daily Report of Construction Operations form shall, at a minimum, provide for the reporting of the following information:

   a. General: This form shall include the progress of work completed since the previous report including the location of work, the number of personnel on the job, equipment at the site, specific quantity of materials delivered to the site and materials incorporated in the Work completed during the reporting period, weather and sea conditions, the extent of and reason for any delays, and any instructions received from the Owner or Engineer as well as any official with state or federal agencies.

   b. Truck Tickets: All daily report forms shall be accompanied by receipts and legible tickets verifying quantity and weight as appropriate for materials delivered. Contractor shall provide Engineer with these receipts and tickets along with copies of field notes and drawings from any site surveys. Contractor shall provide a cumulative total for all stone and sand.

   c. Hours of operation including start times, stop times, and description of the reason for stoppage;

   d. The beginning and ending position stationing of the work;

   e. An estimate of the tons of rock placed during the reporting period;

   f. An estimate of the cubic yards of sand placed during the reporting period;

   g. An estimate of the unit quantities of all other materials placed during the reporting period;
h. All equipment and materials on the job site including, trucks, excavators, and number of personnel on the job site;

i. Weather and sea conditions;

j. Confirmation of daily clearance from endangered species monitors (if applicable);

k. Any materials or equipment delivered to the site;

l. The results of monitoring when required in the Regulatory Permits;

m. Visits from staff of regulatory agencies, Owner, or Engineer; and

n. Any instructions received from regulatory agencies, Owner or Engineer.

The Daily Quality Control Report shall be submitted by 12:00 noon on the day following the day for which the activity is being reported. Mobilization, progress and/or final payment to the Contractor shall be withheld until all of the required Contractor’s Daily Report of Construction Operations has been submitted to the Owner. The preferred method of submittal is by e-mail. Owner reserves the right to suspend construction if the Contractor’s Daily Report of Construction Operations is incomplete or overdue.

1.17 CONTRACTOR’S SUPERINTENDENT

A. Contractor shall designate a competent superintendent who will attend the pre-construction conference as well as be on site during construction activities, and who will be responsible for ensuring the Work is in compliance with the Contract Documents, which includes the Drawings, Technical Specifications and regulatory permits. This person must remain as the superintendent during the entire duration of the project, unless a written request is made for a change and is approved by the Owner.

B. Contractor’s superintendent shall attend all scheduled progress meetings to be held on site with the Owner and the Engineer to review progress of the work, work schedule, and submittals. Initially, progress meetings will be held weekly and will be subject to change based on instructions from the Owner or Engineer.

C. Contractor shall provide a cell phone number, or other reliable means of contacting the Superintendent, by which the Superintendent may be reached at any time of day during construction as well as a backup contact in case Superintendent is not available.
ENVIRONMENTAL PROTECTION

SECTION 01060
ENVIRONMENTAL PROTECTION

1.0 GENERAL

1.1 SUMMARY

A. The work specified in this section consists of providing all equipment, materials and labor and performing all work required to prevent unacceptable adverse environmental impacts, pollution and damage as a result of construction operations. 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 historical purposes. The control of environmental pollution requires consideration of air, water, and land resources.

B. All environmental resources within the project boundaries and those affected outside the limits of permanent work under this Contract shall be protected throughout project duration and shall be the Contractor’s responsibility until notice of final project acceptance. The Contractor shall confine his activities to areas defined by the Drawings and Specifications.

C. It is the Contractor’s responsibility to investigate and comply with all applicable local, state, and federal laws and regulations governing environmental protection, including all regulatory permits issued for this project. Assurance of compliance with this section by any Subcontractors on the project shall be the responsibility of the Contractor. Where conflicts occur between these specifications and the regulatory permits, the requirements set forth in the regulatory permits shall govern. Regulatory permits and approvals are attached to these specifications.

D. Contractor shall provide and maintain during the life of the contract, environmental protective measures including, but not limited to, a spill contingency plan and appropriate spill containment equipment. Contractor shall provide environmental protective measures required to correct conditions, such as oil spills or debris that occur during the construction operations. Contractor must comply with all regulations pertaining to protection of water and land resources, and protection from air and noise pollution.

E. Contractor shall provide temporary erosion and sediment control in all areas affected by the Work. Runoff from disturbed areas within the construction site shall be controlled by construction of temporary sand berms or other methods (based on Best Management Practices and as specified in the construction permits) to effectively prevent erosion and control sedimentation. Contractor shall submit shop drawings of all proposed erosion control measures including but not limited to silt fence, sandbagging, hay bales and floating silt barriers for approval prior to construction.

F. Discarded materials, other than those which can be included in the solid waste category, shall be handled as directed by the Owner’s Representative.

G. Contractor shall provide and maintain during the life of the contract a buffer zone around a known archeological site as indicated on the Drawings and described in these Specifications.
1.2 ENVIRONMENTAL COMPLIANCE

A. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters. Monitoring of all water resource areas affected by construction activities shall be the responsibility of the Contractor. The Contractor shall not discharge or permit discharge into the waters of canals, waterways, ditches, etc., fuels, oils, bitumens, garbage, sewage, or other materials which may be harmful to fish, wildlife, or vegetation, or that may be detrimental to outdoor recreation. The Contractor shall be responsible for investigating and complying with all applicable laws and regulations governing pollution of waters. All work shall be performed in such a manner that objectionable conditions shall not be created in waters through or adjacent to the project areas. Contractor shall conduct any specific monitoring or other related requirements as specified in the construction authorizations.

B. Noncompliance: The Owner’s Representative will notify the Contractor and the applicable regulatory agencies in writing of any observed noncompliance with applicable BMPs and/or laws, regulations or any elements of the Environmental Resource Permits. The Contractor shall be required to take immediate corrective action. The regulatory agency will determine if any corrective action is required and the Owner’s Representative will notify the Contractor. Such actions may include discontinuing construction of the project until the Contractor complies with the Environmental Protection Plan. The Contractor shall comply and require all subcontractors to comply with all applicable Federal, State or local laws or regulations, permits, easements and all elements of the Environmental Protection Plan. The Contractor shall be liable for any actions, fines, damages, or delays resulting from any violation or non-compliance with the conditions of the permits, easements and terms of this contract attributable to their personnel or subcontractors. The Contractor shall immediately notify the Owner’s Representative of any non-compliance with the permits, easements or terms and conditions of the contract documents including the Contractor’s Environmental Protection Plan.

2.0 PRODUCTS (Section Not Used)

3.0 EXECUTION

3.1 GENERAL

A. Install temporary erosion and sediment control prior to clearing and commencing earthwork. Install turbidity curtains prior to initiating any in-water work which may result in elevated turbidity or violations of state water quality standards. Maintain all temporary erosion and sediment control measures during active construction, until project completion.

B. Conduct all site work, earthwork, and coastal structures construction operations in a manner to minimize turbidity. Work shall conform to all water quality standards as may be prescribed in the construction authorizations and permits.

C. The Contractor shall implement a water quality monitoring program, if required by the State and Federal permit authorizations. Contractor shall submit details of the methodology, quality control measures, personnel, and schedule to the Owner’s Representative prior to commencement of construction, for review and approval. Contractor shall not deviate from approved plans unless provided in writing by Owner’s Representative.

D. The Contractor shall prepare drawings showing locations of proposed improvements for haul roads, material storage areas, sanitary facilities and stockpiles of debris or spoil materials. The plan shall include the measures to be taken for flagging and marking the limits of use areas.
E. No materials will be stored on the beach or in the sand dunes.

F. Any affected naturally vegetated areas within Georgia Department of Natural Resources-Coastal Resources Division jurisdiction will be restored with native vegetation to return the area to pre-project conditions.

G. Any road surface improvements for access over unpaved surfaces will be made with removable materials, such as timber crane mats.

H. If beach quality sand obtained from an upland source is required for access point improvement, such sand will be distributed and allowed to remain within jurisdiction at the completion of the project.

I. Construct the project in accordance with regulatory permit conditions and other applicable requirements. Additional requirements related to known archeological and biological resources are documented in this Specification, Paragraphs 3.6 and 3.7.

3.2 ENVIRONMENTAL PROTECTION PLAN

A. Within fifteen (15) days following Notice of Award, the Contractor shall submit a written Environmental Protection Plan to the Owner’s Representative. The Environmental Protection Plan shall include but not be limited to the following:

1. Oil Spill Contingency Plan

2. Hurricane/Severe Weather Plan

3. Procedures to be implemented in order to provide environmental protection and to comply with applicable laws and regulations, including conditions of the regulatory permits. The Contractor shall provide written assurance that immediate action will be taken to correct pollution of the environment due to accident, natural causes or failure to follow the procedures set out in the Environmental Protection Plan.

4. Methods for Protection of Features and Habitats to be Preserved within Authorized Work Areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e. all air and water quality, fish and wildlife, soil, historical, archeological and cultural resources, marine turtles, manatees and all marine areas. The Contractor shall provide written assurance that immediate action will be taken to correct pollution of the environment due to accident, natural causes or failure to follow the procedures set out in the Environmental Protection Plan.

B. The Contractor shall identify the person responsible for implementing the Environmental Protection Plan. The Contractor’s responsible person shall have the responsibility and authority to act on behalf of the Contractor in all environmental protection matters and shall report directly to the Contractor’s top management.

3.3 EROSION AND WATER POLLUTION CONTROL

A. Contractor’s program to control water pollution shall include a storm water pollution prevention plan to prevent, to the extent feasible, any net increase in pollution of storm water runoff from entering waterways.
B. Sediment basins and traps, perimeter berms, filter fences, berms, sediment barriers (hay bales), vegetative buffers and other measures intended to trap sediment and/or prevent the transportation of sediment onto adjacent properties, or into existing waterbodies, must be installed, constructed or, in case of vegetative buffers, protected from disturbance, as a first step in the land alteration process. Provide routine maintenance of permanent and temporary erosion control features until the project is completed and accepted.

C. Water from trenches and excavations, staging areas, and from spoil dewatering areas, shall be disposed of in such a manner as will not cause injury to public health nor to public or private property, nor to existing work, nor to the work completed or in progress, nor to the surface of roads. Methods of disposal shall not cause erosion or siltation and shall conform to requirements of the project permits.

D. Fill and rock material stockpiles shall be protected at all times by on-site drainage controls which prevent erosion of the stockpiled material. Control of dust from such stockpiles may be required, depending upon their location and the expected length of time the stockpiles will be present. In no case shall an unstabilized stockpile remain after thirty (30) calendar days.

E. The Contractor shall be responsible for monitoring turbidity. Contractor shall deploy turbidity/silt curtains with an absorbent device to catch oil, creosote and flotsam around the practical limit of any in-water activities which may cause a violation of state or federal water quality or turbidity standards. The turbidity/silt curtains shall be deployed in a manner set forth to have adequate positioning and anchoring devices to assure their performance. The silt curtain bottom shall be maintained by the Contractor to prevent its migration during various phases of tide and wave action. If the curtain gets damaged during the operation, the Contractor shall suspend the work until the silt curtain is appropriately repaired to provide the protection needed. Should the Contractor know of other more effective turbidity containment devices, he is encouraged to suggest alternative methods for review.

3.4 PROPERTY AND VEGETATION PROTECTION.

A. The Contractor shall not remove, cut, deface, injure, or destroy land resources including, but not limited to vegetation, trees, shrubs, mangroves, vines, grasses, top soil, structures, pavement, fencing, roadways, irrigation equipment and land form unless directed to do so on the Construction Plans. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall be responsible for the replacement of any damaged or destroyed property or vegetation, to the satisfaction of the Owner's Representative. Failure to replace damaged or destroyed property or vegetation by the Contractor shall result in replacement by the Owner, and all costs of replacement shall be deducted from monies due or to become due to the Contractor. The Contractor shall be liable for any non-compliance with the conditions of the permits, easements and terms of this contract attributable to their personnel or subcontractors.

3.5 POLLUTION PREVENTION

A. The Contractor shall continuously monitor and manage all construction activities to comply with the following environmental requirements for pollution prevention. The Contractor shall maintain constructed facilities and portable pollution control devices for the duration of the contract or for that length of time construction activities continue.

1. Air. The Contractor shall make all possible efforts to minimize air pollution. All activities, equipment, processes, and work operated or performed by the Contractor in accomplishing
the specified construction shall comply with the applicable air pollution standards of the State of Georgia and all Federal emission and performance laws and standards.

2. Noise Control. The Contractor shall make all possible efforts to minimize noise during operations. All hauling and excavating equipment, including dredges and booster pumps, used on this work shall be equipped with satisfactory mufflers or other noise abatement devices. The Contractor shall conduct these operations so as to comply with all Federal, State, and local laws pertaining to noise. Dredges used on this Work shall be equipped with satisfactory mufflers and/or other sound abatement devices to reduce engine noise. The Contractor shall conduct his operations so as to comply with all Federal, State, and local laws pertaining to noise. The use of horns, whistles, and signals shall be held to the minimum necessary in order to ensure as quiet an operation as possible while maintaining safety and meeting OSHA minimum standards/requirements.

3. Sanitary Facilities. The Contractor shall supply and maintain, at minimum, one (1) temporary sanitary facility for the use of employees and subcontractors. The facility shall be conveniently located onboard the Contractor's dredging plant and/or at the Contractor's submitted and approved staging area. Sanitary facilities shall be of an approved chemical type with regular servicing, as approved by the Owner's Representative and the City of Jacksonville. The Owner's Representative can direct the Contractor to clean or replace the sanitary facility based on odor.

4. Solid Wastes. Solid wastes (including clearing debris) shall be placed in containers, which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination of water, soil, or air. No steel, cables, wire, pipe, drums or any other debris shall be disposed overboard. No burial of waste materials by the Contractor will be permitted. The Contractor shall at all times keep the Project Area free from accumulations of waste material or debris caused by his or her employees or work and shall remove same when necessary or required by the Owner's Representative. All receptacles must be maintained and predator proof.

5. Fuel Transfer. On-water transfers of fuel, oil or any hazardous material shall be conducted in accordance with U.S. Coast Guard regulations (including, but not limited to, 33 CFR 156). The Contractor shall be responsible for cleaning and remediation of any spill and impact of petroleum/diesel product.

6. Fuel Dispensing. Secondary containment, which is capable of holding 110% of the tank contents, must be provided for each fuel storage tank and placed on a level surface. Fuel dispensing areas shall have available a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners directly below the bibb. Edges of the pans shall be 8-inch minimum in depth to ensure that no contamination takes place. Pans shall be emptied immediately after every dispensing of fuel. Should any spilling of fuel occur, the Contractor shall immediately excavate the contaminated ground and dispose of it offsite in an approved area.

7. Oil and Hazardous Material Spills and Containment. The Contractor shall ensure that all hazardous material spills including hydraulic fluid spills are immediately reported to the Owner's Representative. All hazardous material spills shall be immediately cleaned up in accordance with Consolidated USACE Safety and Health Requirements Manual, document number EM 385-1-1 dated 2008. In accordance with EM 385-1-1, the Contractor shall use
suitable methods to prevent the spread of hazardous materials from above ground storage tanks and piping in case of leakage.

8. Bilge Water. Contractors are warned that pumping oil or bilge water containing oil into navigable water or into areas, which would permit the oil to flow into such waters, is prohibited by Section 13 of the Rivers and Harbors Act of 1899 (30 Stat. 1152; 33 U.S.C. 407). Non-compliance with this prohibition is subject to penalties provided for under the referenced acts.

3.6 HISTORICAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES.

A. If during construction activities, the Contractor observes items that may have historical or archeological value (including, but not limited to, Indian canoes, arrow heads, pottery or physical remains), the Contractor shall immediately cease all related operations. Such observations shall be reported immediately to the Owner’s Representative; so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition is required. The Contractor shall cease all activities that may result in the disturbance and/or destruction of these resources and shall prevent his/her employees and subcontractors from trespassing on, removing, or otherwise damaging such resources. The Contractor shall report any observed unauthorized removal or destruction of such resources by any person to the Owner’s Representative, and appropriate State of Georgia authorities. The Contractor shall be liable for any non-compliance with the conditions of the permits, easements and terms of this contract committed by their personnel or subcontractors.

B. An archeological site (referenced also as the “Weber Site”) is known to exist in the northern portion of the project as shown on the Drawings. Other than during active fill activities in the area, this site shall be located, and a 25 ft construction buffer shall be flagged around the site utilizing.

C. Equipment shall not traverse over the area identified as the Weber Site within the 25 ft buffer until after placement of the authorized sand fill. Upon completion of the sand fill, the Contractor shall make all efforts to ensure minimization of additional equipment use over the Weber Site, specifically during landward sand placement and planting dune vegetation.

D. The Contractor shall minimize debris removal that will require extensive ground disturbance at the Weber site and extending North within the project area. Use of small equipment and hand clearing within this area shall occur along the current escarpment line and avoid impacts to the root system.

3.7 COASTAL HABITAT AND FAUNA PROTECTION

A. The Contractor shall continuously monitor and manage all construction activities to minimize interference with, disturbance of, and damage to all existing dunes, beach areas, vegetated habitat, and fauna, including sea turtles and shorebirds. The Contractor shall comply with all conditions of the regulatory permits and associated State and Federal Acts (e.g., the Endangered Species Act of 1973, etc.).

1. If work should occur during sea turtle nesting season (May 1st to October 31st), all lighting shall be in compliance with Chapter 10 of the “Code of Ordinances of Jekyll Island State-Park Authority, Georgia.”
2. Unless otherwise approved by the Owner, all work shall be accomplished during daylight hours.

B. For in-water work, the Contractor shall continuously monitor and manage all construction activities to minimize interference with, disturbance of, and damage to all fish and other marine life in the project area including manatees. The Contractor shall comply with all conditions of the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and applicable state regulatory permits. There are civil and criminal penalties for harming, harassing or killing manatees. Any incidental harm caused to a manatee during construction operations must be reported immediately to the Georgia DNR Wildlife Conservation Section coastal office (800-272-8363 or 800-241-4113 after hours), and the Owner’s Representative. The Contractor shall be liable for any non-compliance with these regulations by the Contractor’s personnel or subcontractors.

C. The Contractor shall provide and maintain all temporary signage during construction, as required by the State and Federal construction permits.

END OF SECTION
SECTION 02230
ROCK REVETMENT

1.0 GENERAL

1.1 DESCRIPTION OF WORK

The Work consists of furnishing all plant, labor, equipment, supplies, materials, and performing all operations to complete the oceanfront revetment return section structure as shown on the Drawings and specified herein. Location of the structure, estimated quantities, required stone sizes, finish grades, and slopes, are depicted on the Drawings. All Work shall be performed from the landside of the existing revetment.

1.2 ORDER OF THE WORK

A. The Contractor shall complete all work to the satisfaction of the Owner and Engineer. All Work shall proceed continuously from the initiation of construction to completion of project with no intervening gaps in construction. The Contractor shall provide the Owner’s Representative and Engineer with a detailed work plan and schedule at the pre-construction conference. No work shall begin until the work plan is approved by the Engineer.

B. Anticipated Construction Sequence. The Contractor shall complete the revetment return structure prior to beach and dune fill proceeds adjacent to the rock structure.

1. Selectively remove debris to provide a relatively smooth existing surface for revetment return section construction. Contractor shall not conduct gross excavation of existing sand or rock, specifically at the scarp line. Do not excavate existing materials or operate heavy machinery on or landward of the scarp line. Secure all stockpiled materials until re-installation. Existing stone within the return section footprint may be removed and directly placed within the design template as applicable.

2. Install geotextile under revetment return section footprint.

3. Place new base and armor stone per section details as indicated on the Drawings.

4. Utilize any undersized new armor stone as chinking. Contractor shall use due diligence in using rock as chinking material to form a compact, stable mass.

5. Remove and dispose of any non-conforming or unsuitable materials in a location approved by the Owner.

C. Contractor shall establish a construction zone perimeter around revetment work areas, stockpile areas, vehicular access routes, and all related construction areas accessible to the public to ensure adequate safety. Disruption to public beach access shall be limited to the extent practical and coordinated with the Owner’s Representative. Perimeters shall be of typical construction net fencing or other high visibility elements approved by the Owner. Material and work for the establishment of construction zone perimeters shall be at the Contractor’s expense.

D. The project Work will be done along the beach and dune system, landward of the existing revetment. This area includes habitat for endangered species and is also used by the public. For the protection of this resource, the Owner and regulatory permits may require limits on access and timing restrictions for delivery of materials, equipment, and daily monitoring Work. These shall be coordinated prior to Construction.

1.3 SUBSURFACE CONDITIONS
A. Refer to Section 03530 Beach and Dune Fill, Paragraph 1.4.

1.4 SUBMITTALS

A. Contractor shall submit the following to the Owner’s Representative in accordance with the timelines indicated in Section 01000 GENERAL PROJECT REQUIREMENTS Specification.

1. Contractor’s proposed schedule and method of construction, including sequence of rock delivery and placement, transportation and handling of rock, rock chain of command, placement method, and equipment to be used for each portion of the construction. This shall include any proposed temporary site improvements for access and construction.

2. Rock samples and quarry testing and certification reports as described herein (unless Owner provides rock to Contractor in one or more on-site stockpiles).

3. Copies of the records of inspections and reports of operations as well as any corrective actions taken.

4. Surveys to document pre-construction, progress, and post-construction conditions, including final as-built survey.

5. Contractor plans and compliance reports as outlined elsewhere in the Specifications.

2.0 PRODUCTS

2.1 GENERAL

A. The following table provides the Engineer’s material quantity estimates for the revetment return section, based on the best available information.

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARMOR STONE</td>
<td>1,120</td>
<td>TONS</td>
</tr>
<tr>
<td>2</td>
<td>BASE STONE</td>
<td>345</td>
<td>TONS</td>
</tr>
</tbody>
</table>

B. Quantities in the above table are supplied for Bidding purposes only and represent total rock quantity within the Design Template above existing surveyed grade (tolerances not included). Rock quantity estimates are based on most current data and Engineer’s estimates (void porosity 25% for base stone and 40% for armor; rock dry unit weight 165 pounds per cubic foot (pcf)). Contractor shall be responsible for verifying all material quantities.

2.2 STONE MATERIALS

A. All stone for construction shall meet or exceed the requirements described herein.

B. The source of materials shall be subject to the approval of the Engineer. For such approval, the Contractor shall submit adequate representative samples and the results of laboratory tests for the respective samples, not less than thirty (30) days before any such material is required for use in the Works. Testing results shall be dated within ninety (90) days of the submittal date to the Engineer. All testing to confirm stone sizes and conformance with the specifications shall be at the Contractor’s expense.
1. At a minimum, the tests described in Paragraph 2.2.C below shall be performed prior to construction for each stone size category delivered to the project site. Each testing event shall be on a minimum of 3 random samples for each type of stone from the quarry.

C. All stone shall meet the minimum requirements listed below. Contractor shall be responsible for performing quality tests on all stone and submit quarry certificates to verify quality for all Contractor provided stone.

1. All rock shall be clean, sound, and durable, and free from fractures, inclusions, voids, or other defects.
2. Minimum unit weight (saturated surface dry, ASTM C127) of 165 pounds per cubic foot (pcf). Should the desired unit weight not be achievable, the Contractor shall submit supporting information from available sources which provide an alternate unit weight, along with an adjusted stone size required to achieve the stone requirements outlined in the Drawings and Specifications. This information will be reviewed by the Engineer and must be accepted prior to purchase of stone.
3. Sulphate soundness 15% maximum loss at 5 cycles (sodium, ASTM C88) and max 2% absorption (ASTM C127).
4. Such character that it will not disintegrate from the action of air, water, or the conditions of handling and placing. Maximum L.A. abrasion loss 25% for 500 revolutions (ASTM C535)
5. Clean and free of earth, clay, refuse, or adherent coatings, cracks and seams.
6. Rough, angular quarried material with a shape that assures interlocking with adjacent stone.
7. Rock samples indicative of the color range that will be delivered to the site shall be provided to the Owner, prior to construction, for acceptance.

D. Other tests may be considered necessary to demonstrate to the Engineer that the material is acceptable for use in the Work. Any such tests shall be at the Contractor’s expense. Once the source(s) for imported stone are approved, the Contractor shall not use material from another source without repeating the acceptance and test procedures to qualify the other source(s).

2.3 STONE SIZES

A. The Contractor shall furnish and install new armor stone as part of the revetment construction work. The following size stone shall be required, based on an average design dry unit weight of 165 pcf. At least 50 percent of the stone in each category shall have a diameter equal to or larger than the median size (D_{50}), and a maximum range as specified.

<table>
<thead>
<tr>
<th>Stone Type</th>
<th>Weight Range</th>
<th>Median Weight (W_{50})</th>
<th>Median Size (D_{50})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armor</td>
<td>0.5 – 2.5 T</td>
<td>1.5 T</td>
<td>2.6 ft</td>
</tr>
<tr>
<td>Base</td>
<td>USDOT Class 1 Rip-Rap</td>
<td>10-42 pounds</td>
<td>5-8 inches</td>
</tr>
</tbody>
</table>

Note: 1 Ton = 1 T = 2,000 pounds

B. The least dimension of any stone shall not be less than one-third (1/3) of the greatest dimension of that stone. Square or flat stone shall not be accepted. The stone shall be clean, hard, durable, close grained, free of cracks, and free of seams or other imperfections which might affect the durability of the stone. The inclusion of dirt, sand, clay, and rock fines shall not be permitted and if any is found in a shipment of stone, it shall be excluded when determining the
weight of stone for payment. In addition, the Owner’s Representative may require the Contractor to wash contaminated stone before placement, at the Contractor’s expense.

C. The required stone size and estimated quantities are shown on the Drawings. Nominal dimension/stone size as defined herein is taken to be the average of the stone’s maximum girth measured in each of three perpendicular axes. The in-place stone shall be well graded and represent the range of sizes for each classification of stone specified.

2.4 GEOTEXTILE

A. Geotextile shall be of the type indicated in Section 03530 Beach and Dune Fill, Paragraph 4.0.

3.0 EXECUTION

3.1 ROCK QUALITY CONTROL

A. The Contractor shall stockpile the armor stone, both at the quarry and any approved staging areas, for inspection by the Owner’s Representative during working hours.

B. Reference Rocks. A set of 3 approved armor stones meeting the technical specifications for quality, size, and weight shall be selected and provided as examples of the minimum, average and maximum size rocks specified. The rocks shall be marked with the value of the weight and the set shall be located in a prominent and convenient location to provide easy reference for quarry personnel. The Contractor shall also provide a set of not less than 3 reference rocks at the project site.

C. As a stone quality control check, the Engineer reserves the right to instruct the Contractor to conduct random drop tests on armor stone, at the quarry or the project site. For this test, the selected test stone(s) shall be dropped from a crane, bucket, or other means from a height of one-half the average diameter of the selected stone onto a rigid surface or second stone of comparable size. Stone fracturing as a result of the drop test constitutes test failure. Individual fractured stones will be rejected for use as armor stone. If a stone fractures as a result of the drop test, the Owner’s Representative may elect to test other stones from the same load. If multiple stones from a single load fail the drop test, the Engineer may elect to reject the entire load for use as armor stone. Armor stone that does not meet these specifications may be utilized as chinking or base stone at the Engineer's discretion.

D. The Owner and Engineer reserve the right to reject stone and refuse payment for stones delivered to the site which do not meet these specifications. Stone may be rejected at any time and may require disassembly of the structure in order to replace rejected material. The Contractor shall remove unacceptable stone from the work site at no additional cost to the Owner. Unacceptable stone shall be disposed of in a location acceptable to the Owner. Rejected stone shall be deducted from truck tickets and payment.

3.2 EXCAVATION

A. The Contractor shall perform grading and all filling necessary to construct the revetment to the lines and grades shown on the Drawings.

B. If the Contractor encounters permanent structures which are buried in any location, the Contractor shall contact the Owner’s Representative before proceeding with excavation.

C. No separate payment shall be made for any required excavation and filling, which shall be considered incidental to rock placement.
3.3 EXISTING REVETMENT AND SITE PREPARATION

A. Clearing of existing vegetation, snags, debris, etc. shall only be conducted to the extent required for construction of the revetment return structure. All cleared materials shall be disposed of in a legal manner, off Jekyll Island, unless otherwise directed by the Owner.

B. The Contractor shall only re-work existing scattered stones to the extent required to create a sufficient base to allow placement of the geotextile, base stone, and new armor stone to achieve the lines and grades shown on the Drawings. Any and all excess excavation performed by the Contractor for any purpose or reason, except as may be ordered in writing, and whether or not due to the fault of the Contractor, shall be at the expense of the Contractor.

C. No excavation shall be done into the existing scarp line or landward of that point during construction of the revetment return section, due to the potential presence of historical resources.

3.4 GEOTEXTILE SHIPMENT, STORAGE, AND PLACEMENT

A. Geotextile shipment and storage shall be per Section 03530 Beach and Dune Fill, Paragraph 4.1.

B. Geotextile placement shall be per Section 03530 Beach and Dune Fill, Paragraph 4.2, with the exception of 4.2.C which is replaced with the following:

The geotextile shall be placed in accordance with the manufacturer’s recommendations. Geotextile shall be placed loosely over grade. The geotextile material shall not be pulled or stretched over existing rock, rubble, snags, roots, or bridged over depressions. Caution should be used to ensure the geotextile does not snag on any jagged rocks within the existing revetment. The geotextile may be temporarily secured in place with sand, pins, sandbags, or rock as required by site and weather conditions, or as directed by the Engineer.

and with the exception of the last sentence of 4.2 D which is replaced with the following:

Where overlaps are utilized, they shall be not less than 24 inches in width.

3.5 STONE TRANSPORT AND PLACEMENT

A. STONE TRANSPORT

1. The Contractor shall provide transportation of stone to the project area. Owner shall make no payment for stone spillage or loss during transport to the project site. The Contractor shall be responsible for providing and maintaining barricades, warning lights, signals, buoys, and flagmen as required to ensure safety as directed by the regulatory agencies and the Owner. Contractor shall submit all truck tickets to the Engineer in daily reports.

2. Staging Area(s): Construction staging areas shall be provided as indicated on the Drawings and directed by the Owner. Other staging areas may be available however they are subject to Owner’s written approval.

3. Ingress and Egress to Site: Entry and exit from construction areas shall be only through those points indicated on the Drawings or specifically approved by the Owner. Initial improvement, maintenance, and final restoration of the ingress and egress routes, including all public and private infrastructure and haul roads, is the responsibility of the Contractor. Other access areas may be available however they are subject to Owner and Engineer written approval. Any GDOT or local (JIA or Glynn County) permits for Contractor’s use of the roadways and access areas are the responsibility of the Contractor.
4. Contractor is responsible to ensure no rock remains landward of the proposed template after construction, to the extent practical.

B. STONE PLACEMENT

1. The rock structures shall be constructed to the lines, grades, and thicknesses indicated on the Drawings.

2. Where a geotextile is placed under the rock, the geotextile shall be protected from damage during stone placement. This shall be accomplished by limiting the height of stone drop to less than 1 foot. In the event that this method damages the geotextile, the stone shall be placed directly on the geotextile with zero height of drop. Any geotextile that is damaged or rejected shall be replaced by the Contractor at no additional cost to the Owner.

3. Stone shall be placed to minimize voids between stones and to provide a relatively uniform surface. Begin placement at the bottom of the area to be covered and continue up slope. Place subsequent loads of material against previously placed material to ensure a relatively homogenous mass. Stone shall be placed in such a manner as to prevent rolling or sliding. The armor stone shall be placed to firmly interlock and result in a compact, stable mass. Stone shall not be dropped into place; all stone shall be lowered to rest before releasing.

4. A tolerance of ±6 inches from the lines, grades and slopes shown on the Drawings will be allowed in the finished surface of the armor stone, except that the extreme of this tolerance shall not be continuous over an area greater than 200 square feet. The Contractor will not be paid for stone lying outside the allowable tolerance. The Contractor shall relocate any unsatisfactorily placed stone within the specified limits.

5. Placement of stone during periods of increased wave or current energy sufficient to cause displacement of the stone shall be at the Contractor’s risk. The Contractor shall not be compensated for material which is lost or displaced as a result of the above. Contractor shall ensure rock work on the seaward slope of the revetment is timed to occur during lower tides.

6. Contractor shall tie the ends of the rehabilitated revetment structures into the existing adjacent grades or structures, as applicable, via a field-fit. Submit shop drawings to the Engineer for approval.

3.6 PROJECT AREA RESTORATION

A. At the completion of the Work, the Contractor shall return the Project area to the pre-project conditions or better.

1. The Contractor shall remove all material debris from the site. The Contractor shall remove all construction and grade stakes as installed by the Contractor during the execution of the Work.

2. Contractor is specifically responsible to document pre-existing conditions of the beach access routes from Beachview Drive. Contractor shall repair all damage to the parking, roadways, and adjacent areas along the access routes to pre-project conditions.

3. Additional project restoration details are described in Section 01060 ENVIRONMENTAL PROTECTION.

B. Contractor shall use due diligence in the construction and handling of all stone to ensure that rock pieces do not end up on the beach or in the water beyond the limits of each structure.
Contractor shall inspect the area of Work and pick up and remove any isolated pieces of rock resulting from the construction project that are detached from any of the structures on a daily basis. Small shards or pieces of rock can easily be covered by sand and difficult to retrieve with hauling and equipment movement. Upon completion of Work each day, the Contractor shall walk the project area and nearshore area to remove any such isolated pieces of rock resulting from construction.

3.7 SUBSTANTIAL COMPLETION AND FINAL ACCEPTANCE

A. Engineer will not approve final acceptance of the rock structure until all sections as shown on the Drawings have been placed and accepted, and site restoration has been completed. The Contractor shall be responsible for maintaining the rock structures located within the limits of the project area until final acceptance, at no additional charge to the Owner.

3.8 SURVEYS

A. Compliance Surveys: The Contractor shall establish a survey baseline prior to construction and furnish pre- and post-construction survey profiles (sections) at not greater than 25 ft intervals along the length of the revetment structure. Sections shall be perpendicular to the structure’s length at all locations and extend landward to not less than 10 ft landward of the dune escarpment, permanent vegetation line, or landward toe of revetment; and seaward not less than 10 ft waterward of the toe of the revetment.

B. The compliance surveys shall be used to document compliance with the lines, grades, and tolerances shown on the Drawings and described in these Specifications, with the following requirements:

1. Survey profiles shall include the design template shown on the Drawings, pre-construction profile, and completed rock profile.

2. Spot elevations shall be at not greater than 2.5 ft intervals along sections and taken in locations that represent average rock elevations. Surveys of the finished rock surface shall be performed with a probe with a spherical end of diameter not less than 15 inches. The probe shall be connected to a rod/staff.

3. The vertical tolerance on any two consecutive mean actual transects shall not be negative.

4. Limits of rock placement, or offsets, shall be staked at all times by the Contractor for the Engineer’s inspection.

5. The cross-section measurements of the rock structures shall be observed by the Engineer to check conformance with the design lines and grades. Rock lying outside the allowable tolerances may result in non-payment or deductions.

C. Progress Surveys: Progress surveys shall be taken along the identified stations and baselines in the Drawings. Progress surveys shall be completed as required by the Contractor in advancing the Work and shall include a sufficient number of data points to develop an envelope of the high and low elevations of the irregular surface of the rock. Additional elevations may be requested by the Engineer or Owner. These progress surveys, legible truck tickets, and other means presented by Contractor and approved in the Work Plan shall be submitted to the Owner and Engineer as part of each payment request which includes payment for rock placement.

D. Progress surveys deemed acceptable by the Engineer and Owner may be utilized as a portion of the post construction survey. The post construction survey scope shall be along the same profiles as the pre-construction and progress surveys.
3.9 VIBRATION MONITORING AND CONTROL

A. Refer to Section 03530 Beach and Dune Fill, Paragraph 7.0.

3.10 PAYMENT

A. Payment for rock structures and geotextile shall be per the terms of the Contract Agreement and Schedule of Values, inclusive of all materials, labor, hauling, grading, surveys, monitoring, and earthwork which is incidental to the construction. Truck weight tickets shall be provided to the Engineer at weekly intervals for all rock materials delivered to the site. Truck tickets must be clear and easily legible.

B. Progress Payments: Progress payments will be monthly, based on completion of sections not less than 50 ft in length, and shall be supported by truck weight tickets, geotextile quantities, and progress or post-construction surveys. Surveys will be used to verify compliance with lines, grades, and tolerances described herein.

END OF SECTION
SECTION 03530
BEACH AND DUNE FILL

1.0 GENERAL

1.1 DESCRIPTION OF WORK

A. The Work consists of: (i) furnishing all plant, labor, equipment, supplies and material; (ii) performing all operations in connection with installation of a geotextile separator along the landward portion of the revetment; (iii) excavating and transporting beach quality sand from the borrow area to Jekyll Island, (iv) placing and tilling (where required) up to approximately 118,450 cubic yards (cy) of beach fill material on Jekyll Island; (v) vegetative planting of the newly placed beach fill material along Jekyll Island, and (vi) installation of sand fencing and post and rope fencing along Jekyll Island, in the locations shown on the Drawings. All excavation and placement of sand shall be accomplished using approved land-based equipment. All transport of materials shall be accomplished using approved land- or barge-based methods and equipment.

B. The work is defined by three (3) discrete project segments as indicated on the Bid Form. It is the intent of the Owner to construct all 3 segments as a single construction event. However, each segment is being Bid as a separate line item and the Owner may elect to award one, two, or all three segments at the discretion of the Town.

1.2 EQUIPMENT

A. The Contractor shall keep on the Project equipment which shall meet the requirements of the Work. All equipment for use during beach fill transport and placement shall be capable of operating in the conditions of the project area located on the Atlantic Ocean shoreline of Jekyll Island. All equipment used on this project must follow existing OSHA and State requirements for safety and proper working condition. The equipment shall be subject to inspection by the Owner or Engineer at all times. No reduction in the capacity of the equipment employed on the Work shall be made except by written permission of the Engineer. It is the Contractor’s responsibility for safekeeping of all equipment at the beach and borrow areas for the duration of the Project. All internal combustion engines shall be muffled to diminish noise.

1.3 WORK PLAN

A. The Contractor shall provide the Owner and Engineer with a detailed work plan and schedule at the pre-construction conference. Submit methods and equipment plan on how fill is to be placed onto the dune and berm fill template, such as obtaining fill, transporting fill, stockpiling fill, managing stock pile, placement of fill onto the dune and berm from stockpile, and final grading. No work shall begin until the work plan is approved by the Engineer.

B. Contractor shall establish construction zone perimeters around beach and dune fill areas, stockpile areas, vehicular access routes, and all related construction areas accessible to the public to ensure adequate safety. Disruption to public beach access shall be limited to the extent practical, and coordinated with the Owner’s Representative. Perimeters shall be of typical construction net fencing or other high visibility elements approved by the Owner. Material and work for the establishment of construction zone perimeters shall be at the Contractor’s expense.

C. The project Work will be done along the beach and dune system, landward of the existing revetment, except where noted on the Drawings. This area includes habitat for endangered species and is also used by the public. For the protection of this resource, the Owner and regulatory permits may require limits on access and timing restrictions for delivery of materials, equipment, and daily monitoring Work. These shall be coordinated prior to Construction. Work waterward of the existing revetment must be completed during the period November 1 through April 30 only.
1.4 SUBSURFACE CONDITIONS

A. Limited site-specific geotechnical investigations were conducted as part of this project on Jekyll Island and at the borrow area. Site observations indicate that the areas proposed for access and construction along the Jekyll Island shoreline, landward of the existing revetment are generally characterized as existing sandy substrate, backed by dunes, maritime forest, and upland areas. At the borrow area, the existing and proposed dikes areas are off limits and no excavation shall occur within 100 ft of the centerline of the dikes. Sandy materials are generally expected within the permitted borrow area limits, but the Contractor shall anticipate pockets or layers of unsuitable materials, including silts, clays, and rock, which shall not be transported to Jekyll Island. Such materials may require side casting or stockpiling and avoidance.

B. Underground water, fiber optic, and potentially other utility lines are known to exist within the vicinity of the access locations shown on the Drawings, and may exist in other areas. The Contractor shall conduct any investigations or surveys necessary to satisfy himself of the site conditions.

C. Materials within the project work areas may be unsuitable to support construction equipment. Contractor shall satisfy itself as to the nature of these materials and the types of equipment and methods that will be suitable for construction. Any timber matting or other improvements Contractor requires to temporarily improve access and work areas shall be in conformance with all regulatory permits and approved by the Owner’s Representative.

1.5 SUBMITTALS

A. Contractor shall submit the following to the Owner’s Representative in accordance with the requirements indicated in Section 01000 GENERAL PROJECT REQUIREMENTS Specification.

1. Contractor’s proposed schedule and method of construction, including sequence of materials delivery and placement, transportation and handling, sand material chain of custody, placement method, and equipment to be used for each portion of the construction. This shall include any proposed temporary site improvements for access and construction.

2. Sand material samples and test and certification reports as described herein.

3. Copies of the records of inspections and reports of operations as well as any corrective actions taken.

4. Surveys to document pre-construction, progress, and post-construction conditions, including final as-built survey.

5. Contractor plans and compliance reports as outlined elsewhere in the Specifications.

1.6 ALTERNATE CONSTRUCTION METHODS AND BORROW AREA(S)

A. The Contractor may propose additional or alternate construction methods or sequences, as long as they satisfy the technical, functional, and aesthetic requirements established in these Drawings and Specifications, and comply with all regulatory permits. Any Contractor proposal for alternate or additional construction methods or sequences shall be presented to the Owner and Engineer for consideration and approval. Contractor’s submittal shall include drawings and specifications of sufficient detail and clarity to satisfy the Owner and Engineer of the validity of the alternate proposal. The Owner is under no obligation to accept alternative designs or methods submitted by the Contractor.

B. The Contractor may propose alternate upland borrow area(s), if they meet the technical requirements indicated in Paragraph 2.0 of this specification, and subject to approval of the
regulatory agencies. If any alternate borrow area is accepted by the Owner, the Owner will need to process a permit modification with the State and Federal regulatory agencies for any alternate borrow area, and the Contractor shall factor this into their Work Plan and Schedule.

1.8 WATERBORNE OPERATIONS AND TRANSPORT

A. The Contractor shall obtain any and all U.S. Coast Guard vessel certifications and/or approvals. The Contractor shall be responsible for procuring any necessary U.S. Coast Guard permits for Contractor’s operations and work, as well as Local Notification to Mariners. Copies of all required U.S. Coast Guard certifications and approvals must be provided at the Pre-Construction Meeting.

B. Navigation and Obstruction of Channels. The Contractor shall operate in full compliance with pertinent U.S. Coast Guard regulations and conduct the work in such a manner as to minimize any obstruction to navigation. If the Contractor’s plant obstructs any navigation channel or endangers other vessels, the plant shall be promptly moved as necessary to afford a practicable passage of other vessels. Upon completion of the work, the Contractor shall promptly remove the plant, including ranges, buoys, piles and other marks or objects placed in navigable waters or on shore. Marking and lighting of all vessels shall be in accordance with Federal regulations as defined by the U.S. Coast Guard.

C. Transport. All barges and scows must be kept in good condition, the coamings repaired, and the pockets provided with proper doors or appliances to prevent leakage of material. No overflow shall be permitted during loading and transport of borrow area materials. Crew boats, fuel barges and all other necessary work boats as required for the waterborne operation shall be provided by the Contractor and maintained in a sea-worthy, safe, and an environmentally-sound condition. The Contractor shall supply an Equipment Location Plan detailing the typical setup of all on-site equipment during the construction process as well as planned relocation efforts during specified times of work stoppage. The use of any public area for proposed relocation areas or temporary mooring locations during times of work stoppage or inclement weather must be approved by the Owner prior to relocation/mooring operations occurring.

D. The Contractor shall display signal lights, day marks, and conduct operations in accordance with the U.S. Army Corps of Engineers and U.S. Coast Guard (33 C.F.R. 80.18 - 8-31a: 33 C.F.R. 95.51 - 95.66; 33 C.F.R. 9.22 - 90.36; 33 C.F.R. 82 and C.G. Pub. 169, Navigation Rules, International-Inland dated May 1, 1977) (DAR 7-603.33). All applicable regulations shall be observed by the Contractor including protocol for towing vessels with tows on which no signals can be displayed, barges, and vessels of more than 65 feet in length moored or anchored in a fairway or channel.

2.0 EXCAVATION

2.1 GENERAL PLAN

A. All excavation of material shall be performed in accordance with the approved Work plans and requirements specified herein. Excavation from approved borrow areas shall be accomplished using land-based earth moving equipment provided by the Contractor.

2.2 BORROW AREA

A. The Federal and State permits list one authorized borrow site for this project, the GA DOT/US Army Corps of Engineers (USACE) dredge material management area at Jones-Oysterbed Island, on the Savannah River just downriver from Savannah, GA. The permitted limits of excavation within this site are delineated on the Drawings, and include two (2) subareas where recent dredging projects have disposed of mainly sandy materials. The Contractor shall not remove borrow material and/or disturb the sediments beyond the stated excavation limits. Contractor shall clear all existing vegetation prior to removal of sand to be brought to Jekyll Island. Owner and Engineer
acknowledge that there may be areas of unacceptable material within the limits of excavation, and relocation within the borrow area to avoid unacceptable materials shall be anticipated by the Contractor during construction. Permit conditions require strict monitoring of sediment quality and compatibility, as outlined herein.

B. Acceptable sediment parameters for removal from the borrow area and transport to Jekyll Island are indicated in Table 1. Sand, silt, shell, stumps, debris, rock, and other obstacles may be encountered within the limits of the borrow area. The majority of the materials are fine to medium sands. The Contractor is cautioned, however, that lenses or pockets of unsuitable material for placement may exist in the borrow area.

<table>
<thead>
<tr>
<th>Sediment Parameter</th>
<th>Parameter Definition</th>
<th>Compliance Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Silt Content</td>
<td>passing #200 sieve</td>
<td>10%</td>
</tr>
<tr>
<td>Max. Fine Gravel/Coarse Content</td>
<td>retained on #4 sieve</td>
<td>5%</td>
</tr>
<tr>
<td>Sediment Median Grain Size</td>
<td>$D_{50}$</td>
<td>$0.15 - 0.46$ mm</td>
</tr>
<tr>
<td>Max. Carbonate (Shell) Content</td>
<td>Visual; confirm with lab test if required</td>
<td>15% by volume</td>
</tr>
<tr>
<td>Munsell Color Value</td>
<td>moist Value (chroma = 1)</td>
<td>10YR6/1 to 10YR7/1</td>
</tr>
</tbody>
</table>

The beach fill material shall not contain construction debris, toxic material, other foreign matter, coarse gravel, or rocks.

* The above values are taken to be “on average” for materials considered.

C. Non-beach compatible material will not be accepted for beach fill. If rock, rubble, debris or undesirable sediment (based on color, texture, grain size or fines content) is encountered in the areas of excavation, the Contractor shall immediately coordinate with the Owner’s Representative. Adjustments to the excavation shall be made at the discretion of the Owner’s Representative or Engineer. Stockpiling or relocating to another section of the borrow area as dictated by the Owner’s Representative shall not be construed as a change of conditions and this relocation shall be executed at no additional cost to the Owner.

D. Contractor acknowledges that the Engineer and Owner’s Representative retain the authority to reject sediment, excavated from within the approved limits, for placement within the fill area. Samples of the fill may be collected and tested by the Owner periodically throughout the construction project at Owner’s expense. In the event that unsuitable material is detected as part of these procedures, the Contractor shall immediately stop furnishing such material and shall be responsible for immediately removing any loaded or stockpiled unsuitable material and relocating to another portion of the borrow area.

E. Excavation of the borrow area shall be within the allowable limits provided by the USACE. Such limits may be adjusted by the USACE, via the Engineer, at any time during construction. The Contractor shall provide a written borrow area operations and excavation plan to the Engineer for review and approval prior to construction. Contractor shall not excavate borrow material from one small area and create isolated pits or holes within the borrow area. Excavated areas shall be generally sloped or graded toward the interior of the Jones Island site so that drainage following the project is directed toward the dewatering weirs and does not create any potential stormwater ponding or retention areas within the limits of the Contractor’s work area.

F. The Contractor is advised that the USACE may have one or more contractors working in and around Jones Oysterbed Island concurrently with this project. This may include others working
within the limits of the borrow area and/or access ramp/vessel temporary staging area shown on the Drawings. The Contractor shall conduct his operations in harmony with any USACE contractors. Contractor shall coordinate with USACE and their contractor and Owner if any conflicts arise. The USACE contractor's work shall take precedence according to the MOA between GADOT and Owner dated November 30, 2018. This may require the Contractor to avoid specific areas of the borrow area, share the access and temporary vessel staging area with the USACE contractors, and/or adjust their work plan to avoid conflict with the USACE contractor. Any necessary, Owner-approved temporary suspensions of Work at the borrow area which cannot be reasonably accommodated by the Contractor due to requirements of the USACE or their contractor(s), shall be subject to unit price rate for Contractor Standby Time as provided in the Schedule of Values.

G. If Contractor proposes alternative borrow source(s), Contractor must provide existing, valid mining permit and sufficient geotechnical information indicating that the site contains a sufficient volume of beach compatible material to complete the beach fill project. Any proposed alternate borrow area(s) is subject to the approval of the Owner, Engineer, and permitting agencies.

1. The Contractor shall submit a Representative sample (15 in±) of the proposed sand with his bid within a sealed, air-tight container or bag with a certified independent testing laboratory analysis results report. The report to be submitted with the Contractor’s bid shall include grain size analysis and other testing to document compliance with the parameters listed in Table 1, Paragraph 2.2.B.

2. The Contractor shall also submit with the Bid a report identifying the specific stockpiles(s) and/or site(s) to be used for the project, and an estimate of the volume of sand available from each stockpile or source. Upon request, Contractor shall arrange for Owner’s and/or Engineer’s staff to inspect the stockpile(s) and/or source(s) during evaluation of Bids.

3. The Owner may select the Bid that provides sand that meets the required minimum quality parameters specified herein, is most economical, and meets the Owner’s desired milestones. The grain size distribution, color, and texture of the typical fill material provided by the Contractor shall be equivalent to the data and fill samples provided by the Contractor as part of the bidding process.

2.3 BORROW AREA SITE OBSERVATIONS

A. The Contractor shall have on-site personnel to visually monitor the sand being stockpiled and/or loaded into barges and/or trucks at the borrow area for transport to Jekyll Island, at all times that loading or stockpiling is occurring. The selected individual shall have training or experience in beach and dune nourishment, construction inspection and testing, and be knowledgeable of the contract requirements and permit conditions. The Contractor shall perform daily visual observation of the fill material during construction by personnel who can identify obvious changes in beach fill sand quality and has the authority to reject material that does not visually match the acceptable quality requirements. The Contractor shall conduct testing and sampling at the borrow area at an interval not to exceed 5,000 cubic yards to confirm compliance of fill material with the specifications.

B. The Contractor shall provide at least one benchmark sample labeled “Benchmark Sample”, date collected, site name, and information on where the sample was attained. The Contractor shall also retain a portion of the benchmark sample for his personnel’s reference on site. If any material appears to be non-compliant, it shall be set aside for testing and/or further processing and not transported to from the borrow area.

C. The Contractor shall collect 3 Representative samples from approximately every 5,000 cubic yards of stockpiled and/or loaded material to visually assess grain size, Munsell color, shell content, and silt content against the benchmark sample. The sample shall be a minimum of 1 U.S. pint.
(approximately 200 grams). This assessment will consist of handling the fill material to ensure that it is predominantly sand to note the physical characteristics and assure the material meets the sediment compliance parameters specified herein. If deemed necessary by the Owner or Engineer, Contractor shall conduct quantitative assessments of the sand for grain size, silt content, visual shell content and Munsell color using the methods outlined herein. Each sample shall be archived with the date, time, and location of the sample. The results of these daily inspections, regardless of the quality of the sediment, shall be appended to or notated on the Contractor’s Daily Report. All samples shall be stored until at least 30 days beyond project completion.

D. If a sample does not meet the Sediment Compliance Specifications in Table 1, Paragraph 2.2.B, then the 5,000 cubic yards of material represented by that sample shall not be transported to the Jekyll Island placement area or any interim storage and staging area(s). The material may undergo further processing to meet the Sediment Compliance Specifications with additional testing to verify the additional processing produce material that meets the Sediment Compliance Specifications, or the material shall be set aside and not used.

3.0 EXCAVATED MATERIAL TRANSPORT

3.1 GENERAL

A. The Contractor shall transport excavated material from the borrow area to the fill area using a combined method of barge and truck haul transport. The extent of barge use, other than to initially remove the borrow materials from the Jones-Oysterbed Island source, is at the discretion of the Contractor. The allowable location for a temporary barge landing and access on Jekyll Island is shown on the Drawings at the west tip of the island. Truck access to Jekyll Island shall be via Jekyll Island Road (bridge and causeway). Placement at the fill site shall be by truck dumping, pan equipment, or other method approved by the Engineer and Owner’s Representative.

3.2 TRANSPORT ROUTES

A. The most efficient, permissible route from the borrow area to Jekyll Island fill placement areas shall be utilized. Contractor shall submit his proposed transport route to the Owner as part of the Bid and submit a detailed transportation plan for approval prior to construction. Final haul routes are subject to Owner approval. The Contractor is responsible for complying with all GA DOT, County and other local regulations regarding weight limits for roads and bridges utilized for transport of the fill material. The Contractor is likewise responsible for complying with all applicable traffic, safety and speed laws. Trucks shall be maintained in a safe and legal condition, obey all traffic laws and remain within the delineated project route.

B. The haul route(s) utilized on Jekyll Island shall be approved by the Owner. No storage or parking of trucks is allowed on Jekyll Island with the exception of equipment within the immediate work area required for the prosecution of the work. Limited equipment storage is provided in staging areas delineated on the Drawings.

C. Following approval of the transportation plan, use of alternate routes is prohibited.

3.3 TRUCK CAPACITY

A. Submit Department of Transportation information for each truck to be utilized for hauling beach fill for inventory tracking purposes. All trucks used for hauling shall be provided with a unique number. A listing of truck numbers and load capacity (in cubic yards) shall be provided to the Owner and Engineer prior to construction and updated as necessary for the duration of the Project.
B. Owner or Engineer may require each truck utilized by the Contractor to be marked with a red horizontal fill line across the inside of the bed (front to back). This line will represent a minimum fill elevation to which beach compatible material will be loaded so that the volume transported is the specified volume capacity of the truck (e.g. 12 cy, 15 cy, etc.). Truck volume and fill lines, if required by the Owner or Engineer, shall be determined by observation of Contractor counting known size buckets of sand being loaded into the truck bed.

3.4 MATERIAL SPILLAGE

A. No overflow or spill-out of fill shall be permitted during transport to the fill site. All trucks shall be covered (including any GADOT requirements) in order to prevent spillage, and barges and trucks maintained, with any leaks repaired promptly and properly. Failure to modify those methods of operation which are resulting in spillage during transport will result in suspension of transport operations and shall require prompt repair or change of operations so as to prevent spillage as a prerequisite to resumption of transport operations. Failure to repair leaks satisfactorily which results in spillage may result in suspension of construction without additional compensation. No payment will be made for misplaced or spilled borrow materials. The Contractor will be responsible for cleanup of any misplaced or spilled borrow materials.

B. The Contractor is required to maintain state, federal, and local water quality standards throughout project work. Any transfer mechanism conveying excavated material to the temporary barge loading area(s) and during waterborne transport to Jekyll Island shall be free of leaks and kept in good condition at all times and any leaks must be promptly and properly repaired. Failure to repair leaks satisfactorily, resulting in spillage that exceeds turbidity limits and water quality standards, will result in suspension of operations and potential state and federal fines. Should the loss of material or water be observed, the method of transport shall be immediately shut down and the necessary repairs made. Any material lost during transfer or transport will be the Contractor’s responsibility as well as any associated fines and cleanup costs.

C. If, during the progress of the work, the Contractor should lose, dump, throw overboard, sink, or misplace any material, plant, machinery, or appliance which in the opinion of the Owner should be removed, the Contractor shall recover and remove the material(s) immediately. The Contractor shall provide immediate notice to the Owner including a description of and DGPS coordinates for such obstructions. Removal of the obstruction and all associated costs shall be the responsibility of the Contractor. Should the Contractor refuse, neglect, or delay compliance with the above requirements, such obstructions may be removed by the Owner, and the cost of such removal may be deducted from any money due or to become due to the Contractor or may be recovered under the Contractor’s bond. The liability of the Contractor for the removal of a vessel wrecked or sunk without fault or negligence shall be limited to that provided in Sections 15, 19, and 20 of the Rivers and Harbor Act of March 3, 1899 (33-U.S.C. 410 et. seq.).

3.5 LOAD COUNTS

A. The Contractor shall provide to the Owner’s Representative, at daily intervals by 10AM, a tabularized log of load counts by truck number and truck capacity which are successfully hauled to the beach fill area on the previous day. These will be verified by the Owner’s Representative. Truck counts will be used for the purposes of project progress. Pre- and Post-construction surveys in the fill placement area will be used to verify fill placement for project payment and acceptance.

3.6 TRAFFIC CONTROL

A. The Contractor shall be responsible for providing and maintaining public safety and traffic control (vehicular and pedestrian) along the approved haul route(s), access points, and all work areas according to county, state (GA DOT), or federal regulations and as directed by the Owner.
3.7 BEACH ACCESS

A. Owner has designated four (4) beach ingress/egress points shown on the Drawings, which have been approved via the regulatory permits for the project. Entry and exit from construction areas shall be only through those points specifically approved by the Owner. Staging areas provided by the Owner are indicated on the Drawings. Additional access and staging areas, if required by the Contractor, shall be negotiated with the Owner prior to commencement of the Work. Any GA DOT or local (JIA or Glynn County) permits for Contractor’s use of the roadways and access areas are the responsibility of the Contractor.

B. Initial improvement, maintenance, and restoration of the ingress and egress routes and staging areas is the responsibility of the Contractor. Caution shall be used when entering/exiting access and staging areas, and when accessing the beach since the area beaches are frequented by tourists and residents. Existing beach/dune topography, vegetation, and upland improvements shall be disturbed only to the minimum extent necessary for construction and construction access and other authorized activities. To the maximum extent feasible, the Contractor shall limit clearing for the access (from the existing pavement to the beach). The Contractor shall avoid disturbing native vegetation wherever possible; any disturbance of existing native vegetation by the Contractor shall be restored by the Contractor at no additional cost to the Owner.

3.8 DAMAGE TO ROADS AND PROPERTY

A. The Contractor shall be responsible for any damages caused to infrastructure, property, landscaping, or natural resources that occur during the course of excavation, transport, and placement of the borrow materials. The Contractor shall properly photo-documented the pre-construction condition of the fill and borrow areas, and transport route(s) before commencing the Work. The Contractor shall be responsible for maintenance of the haul route for the duration of the project.

4.0 GEOTEXTILE SEPARATOR

A. A geotextile shall be placed as a separator between the landward slope of the rock revetment (including the existing rock revetment and new return section) and the beach and dune fill, as shown on the Drawings. Geotextile shall be placed prior to placement of sand, per method as submitted by the Contractor and approved by the Engineer.

   1. Geotextile separator material quantities in the Bid Form are based on a typical 12 foot roll width and an allowance of 20% contingency to include overlaps and loose placement.

B. Materials: Geotextile separator shall be a Polymeric Triton® Grid Composite System GC654050 by Tensar International Corporation, Inc. (phone 800-TENSAR-1) with integral formed stress resistant polypropylene geogrid, bonded or sewn to a woven, monofilament polypropylene geotextile, or approved equal. The GC654050 product shall be modified as listed below:

   1. The geotextile filter portion of the Grid Composite System shall be US670 by US Fabrics, Inc. (phone 800-518-2290), or approved equal. The filter portion shall be bonded or sewn prior to installation.

   2. Alternate grid composite materials shall not be used unless submitted to the Engineer and approved in writing by the Engineer at least 7 days prior to the commencement of Construction. The Engineer shall have absolute authority to reject or accept alternate materials based on the requirements of this Section and the Engineer’s judgment.

4.1 SHIPMENT AND STORAGE
A. The geotextile shall be shipped and maintained in a heavy-duty protective cover until it is placed. During all periods of shipment and storage, the geotextile shall be protected from direct sunlight, ultraviolet rays, temperatures greater than 140 degrees Fahrenheit, mud, dirt, and other contaminants.

4.2 GEOTEXTILE PLACEMENT

A. Geotextile shall be placed as follows:

B. Prepare surface on which the geotextile will be placed, to a relatively smooth surface condition and shall be free from obstruction, debris, depressions, erosion feature, or vegetation. Remove any irregularities so as to ensure continuous, intimate contact of the geotextile with all the surface. Any loose material, soft or low-density pockets of material, shall be removed; erosion features such as rills, gullies etc. shall be graded out of the surface before geotextile placement.

C. The geotextile shall be placed extending down from elevation +9.0 ft NAVD88, or not more than 6 inches below the final design grade of the beach fill as directed by the Engineer, along the landward slope of the existing revetment. Geotextile shall extend down to existing grade and landward as shown on the Drawings. The top of the geotextile shall be buried in the beach fill at acceptance. Caution should be used to ensure the geotextile does not snag on any jagged rocks within the revetment. The geotextile shall not be pulled or stretched over any rock or debris. The geotextile shall be placed parallel to the revetment structure’s long axis as loosely as possible over landward slope of the rock surface. The geotextile shall be placed with the geogrid side down against the rock and the geotextile filter side up. The geotextile may be temporarily secured in place with sand, pins, sandbags, or rock as required by site and weather conditions, or as directed by the Engineer.

1. Contractor shall coordinate and notify Engineer and Owner’s Representative a minimum of 48 hours prior to placement of any geotextile on the landward slope of the revetment.

2. Contractor shall coordinate and notify Engineer and Owner’s Representative a minimum of 48 hours prior to placement of sand over any geotextile on the landward slope of the revetment.

3. Pending performance and installation characteristics observed in the field, Engineer may coordinate with Contractor regarding placement techniques.

D. The geotextile shall be connected via braided connections or overlaps. Braided connections shall be submitted for Engineer approval and installed according to the manufacturer’s recommendations. Where overlaps are utilized, they shall be not less than 5 feet in width.

E. Tracked construction equipment shall not be operated directly on the geotextile. A minimum fill thickness of 12 inches is required prior to operation of tracked vehicles over the grid composite. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geotextile. Rubber-tired equipment may pass over the geotextile at slow speeds, less than 10 mph. Sudden braking and sharp turning shall be avoided. A minimum fill thickness of 12 inches is required prior to operation of rubber-tired equipment over the geotextile.

F. Protect the geotextile at all times during construction from contamination by surface runoff; remove any geotextile so contaminated and replaced with uncontaminated geotextile. Replace any geotextile damaged during its installation at no cost to the Owner. Schedule the work so that the covering of the geotextile with a layer of the specified material is accomplished within 3 calendar days after placement of the geotextile. Failure to comply shall require replacement of geotextile. Before placement of material, demonstrate that the placement technique will not cause damage to the geotextile. In no case shall any type of equipment be allowed on the unprotected geotextile.
G. The Contractor shall coordinate for a qualified Tensar representative to be present at the job site during the first week of installation to provide technical assistance as needed. The Contractor shall remain solely responsible for the quality of installation.

5.0 PLACEMENT OF BEACH FILL

5.1 GENERAL

A. Placement of the beach fill material shall be within the assigned reaches as shown on the Drawings. Cross-sections shown on the Drawings are based on the placement of up to approximately 118,450 cy of fill material within the design template indicated along Jekyll Island. Contractor is notified that the Owner or Engineer may exclude portions of these reaches for construction or alter the construction sequencing, based on available sediment quantities and the construction time limits established in the applicable State and Federal regulatory permits.

5.2 CONSTRUCTION SEQUENCE

A. The Contractor shall carry out construction according to the sequence submitted to the Owner and approved prior to the start of the Work. The Work on the beach, seaward of the existing revetment, must be completed outside the sea turtle nesting season as described in the project regulatory permits.

5.3 SITE PREPARATION AND BEACH DEBRIS REMOVAL

A. The Contractor shall carefully remove all dead vegetation, rock, snags, driftwood, wrack, and miscellaneous debris lying within the construction limits of the beach fill sections prior to commencement of any Construction activity. All materials removed shall be disposed of at sites approved by the Owner. Removal of dead vegetation shall not include removal of large trees in the Driftwood Beach Transition Section. Such trees will need to be filled around according to instructions of the Owner.

B. Contractor shall avoid, to the extent practical, damage to the existing dune/beach overwalks within the project area. Some dune/beach overwalks may require full or partial demolition for project construction. Contractor shall submit any required demolition plans to Owner’s Representative for approval prior to commencement. Any and all demolition and material disposal of dune/beach overwalks performed by the Contractor for any purpose or reason and whether or not due to the fault of the Contractor, shall be at the expense of the Contractor.

C. Any required excavation and other works adjacent to existing dune overwalks and all other beachfront structures shall not compromise the integrity of the existing structure. Any required alterations to existing structures must be approved by the Owner or Engineer. Any required alterations or incidental damage to existing structures or their foundations must be restored to pre-project conditions at the Contractor’s expense.

5.4 BEACH FILL TEMPLATE

A. The excavated and transported material shall be placed and brought to rest on the terrace berm and/or beach area to the lines, grades, and cross section indicated on the Drawings, unless otherwise provided for herein or directed by the Engineer. The beach fill site is subject to changes and the elevations in the fill placement areas at the time the work is done may vary from the elevations shown on the Drawings. The beach fill cross sections shown on the Drawings are for the purpose of estimating the theoretical amount of fill needed and will be used by the Engineer in making any change in the lines and grades.
B. Design cross-sections call for a fill elevation graded from +9.5 ft NAVD88 at the landward side of the revetment sloping gently to +10 ft NAVD88 at the upland scarp line as shown on the Drawings. An additional dune is proposed with 2H:1V seaward and landward slopes, and a crest elevation of +12 ft NAVD88. Landward limit of fill placement shall be field marked prior to construction of each beach section by the Contractor, via walking the limits with the Engineer and Owner. A field fit may be required due to the variation of landward existing upland scarp or vegetation lines.

C. Where the fill extends seaward of the existing rock revetment, Contractor is not required to perform grading seaward of the mean high water (MHW) line (+). However, Contractor shall conduct grading of the lower profile during times of low tide to the extent practical. The slope from MHW to the existing profile will be generally shaped by waves and tidal currents.

D. The Contractor shall seek to minimize compaction of the existing and newly placed beach fill to the maximum extent possible.

E. The Contractor shall avoid impact to existing native dune vegetation.

5.5 BEACH SURVEYS AND LAYOUTS

A. The Contractor shall contract with a third party, Georgia professional surveyor to perform pre- and post- construction payment surveys of the fill areas. Not earlier than 30 days prior to construction of any acceptance section of the beach fill placement area, the Contractor’s third party surveyor shall perform the pre-construction survey and install dimensional staking of the fill areas to establish the berm and dune locations for the Contractor. The surveyor shall set stakes and markers along the baseline indicated in the Drawings at maximum 50 ft internals. Contractor shall be responsible for maintaining dimensional staking throughout the Project. The Contractor shall furnish at his own expense any such additional stakes, templates, platforms, equipment, tools and material, and all labor as may be required to layout and execute the work. It shall be the responsibility of the Contractor to maintain and preserve all grade stakes until project completion.

B. Beach profiles shall be conducted by differential leveling techniques or using RTK GPS from the back beach or dune (not less than 20 ft landward of the existing scarp or permanent vegetation line) across the dune and berm profile to not less than than 30 ft seaward of the design fill section or 10 ft beyond the existing rock revetment seaward crest, whichever occurs first. Contractor shall close all level loops and said closure shall be less than 0.04 ft. All survey notes and control points utilized shall be documented in field books with copies supplied, upon request, to the Engineer or Owner. Spot elevations shall be surveyed at not greater than 10 ft intervals along the profile line, and at all fixed structures, escarpments, or other grade breaks (i.e., at toe, crest, and inflection points of any existing or constructed fill areas) to accurately represent the existing profile at the time of the survey. A tolerance of no more than 5 ft either side of the theoretical azimuth of the profile shall be allowed.

5.6 TEMPLATE ADJUSTMENTS AND COMPLETION

A. The Engineer reserves the right to alter the cross-section dimensions from the lines and grades shown on the plans in order to establish a uniform berm and dune for the entire length of the shoreline and to adjust to changing site conditions. All beach filling shall progress continuously from the initiation of construction to completion. Completion of construction includes final dressing to prescribed cross-sections and uniformity along reach.

B. If problems arise during construction regarding site conditions that preclude the dune or berm configuration per the Drawings, the Contractor shall notify the Owner immediately to discuss alternatives. The Owner shall initiate a Field Order or Change Order as may be appropriate. Upon approval by the Owner, work may proceed accordingly.
C. The Contractor shall monitor the excavation and fill operations and shall notify the Owner if and when the quantity to be placed appears to exceed the Contract quantities. Any changes in Contract quantities shall require a Change Order. The quantity of sand specified on the Bid Form is the maximum sand quantity the Contractor will be paid for, unless otherwise authorized by a Change Order.

5.7 TOLERANCES

A. Following Contractor’s notification to Owner that beach sections of not less than 1,000 ft (acceptance sections) have been completed, the Contractor’s third party surveyor shall conduct post-construction surveys at the same baseline stations surveyed for the pre-construction survey. The post-construction survey shall be for payment purposes and to verify that Contractor’s beach fill is in accordance with lines and grades described in the Drawings and these Specifications. Vertical tolerance on the terrace berm and dune shall be minus (-) 6 inches from the design grades indicated on the Drawings. Final retainage for progress payments will not be released unless beach fill templates are accepted by Owner based on the surveys.

5.8 GRADING AND DRESSING

A. Upon completion of all filling operations, the Contractor shall remove any large or unsightly debris (e.g., tires, large stone, large metal objects, etc.) and shall grade and dress the fill. Any pockets, bumps, or depressions in the beach fill surface shall be graded to provide a uniform surface between adjacent sections of beach. Grade stakes used in the placement of the fill shall be removed intact, without breaking. The Contractor may use whatever equipment deemed necessary to achieve a uniform grade, which may include “back blading” or tow dressing with a large diameter metal pipe.

5.9 TILLING

A. Following acceptance of fill placement and prior to final completion, Contractor shall till the newly constructed beach fill, where required by the State and Federal permits. Tilling is not anticipated for the beach fill areas landward of the existing revetment. If any tilling is required, it shall be completed prior to May 1 or as indicated in the regulatory permits, whichever is earlier.

5.10 BEACHFRONT STRUCTURES

A. Contractor shall adequately ramp over or bury sand bags, or other shorefront structures encountered during beach fill construction to prevent damage by the Contractor’s equipment. Construction equipment shall not be permitted outside the construction limits of the Project reaches except for the specific ingress and egress areas approved by the Owner. Following construction, the beach in the area of any ramps shall be leveled and dressed. Backfilling around such structures shall be performed by appropriate construction equipment, or by hand if required.

5.11 WIND BLOWN SAND

A. The Contractor shall take measures to control wind-blown sand. The Contractor is responsible for cleanup expenses that result from wind-blown sand.

5.12 BEACH FILL SITE OBSERVATION

A. The Contractor shall continuously visually monitor the sediment being placed on the beach. An assessment shall be made during placement at a minimum of once every day. This assessment shall consist of handling the fill material to ensure that it is predominantly sand and to note the physical characteristics, and assure the material meets the Sediment Compliance Specifications in Table 1, Paragraph 2.2.B. If noncompliant sediment is placed on the beach, the Contractor shall
immediately cease placement until any stockpiled material at the beach construction staging area can be verified as beach compatible and verbally notify the Owner’s Representative, providing the time, location, and description of the noncompliant sediment. The Contractor shall take the appropriate remediation actions as directed by the Owner or Engineer.

5.13 REMEDIATION ACTIONS

A. The Owner or Engineer shall have the authority to determine whether the material placed on the beach is compliant or noncompliant. If placement of noncompliant material occurs, the Contractor will be directed by the Owner or Engineer on the necessary corrective actions. Should a situation arise during construction that cannot be corrected by the remediation methods described within this Specification, the GA DNR and USACE will be notified. The remediation actions for each sediment parameter are as follows:

1. Silt: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value, or removing the noncompliant fill material and replacing it with compliant fill material.

2. Shell: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.

3. Munsell color: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.

4. Coarse gravel: screening and removing the noncompliant fill material and replacing it with compliant fill material.

5. Construction debris, toxic material, or other foreign matter: removing the noncompliant fill material and replacing it with compliant fill material.

B. All noncompliant fill material removed from the beach will be transported to an appropriate upland disposal facility located landward of the GA DNR SPA line. Re-testing of any remediated sections will be conducted as outlined in Paragraph 5.12.A above.

6.0 VEGETATION PLANTING

6.1 ORDER OF WORK

A. Planting shall follow the direction of beach and dune fill placement. After obtaining acceptance of completed beach fill sections, the Contractor shall plant the terrace berm and dune as shown on the Drawings. The purpose of the vegetation is to keep sand from being blown onto adjacent properties and further enhance and stabilize the berm and dune.

6.2 SUBMITTALS

A. Watering Plan - The Contractor shall furnish to the Engineer a plan for watering the plants and an itemized list of equipment that will be used during watering operations.

B. Certificates of Compliance - Before delivery, certificates of compliance shall be submitted to the Engineer certifying that the plant materials meet the required specification.
C. Final Planting Plan – The Contractor shall coordinate with the Owner following award and provide a final planting plan for Owner review and approval. Owner must submit the final planting plan to the regulatory agencies prior to installation of plants.

6.3 MATERIALS

A. The source of all planting units delivered under this bid item shall be limited to seeds and propagated plants collected from the Georgia coast or Florida east coast. Source material collected from areas other than these noted locations will be rejected. The Contractor will be required to provide written documentation as to the source of the planting units. Documentation shall include collection permits or contracts from the GADNR, the U.S. Department of Agriculture, or other comparable documents.

6.4 METHODS

A. Liners - All plant materials shall be grown in multi-well trays (liners) of approximately 1.5 inches wide by 1.5 inches long and not less than 2.5 inches depth.

B. The number of seeds placed in each liner will be determined through germination experiments by the Contractor such that deliverable, viable planting units with at least two emergent stems are produced. Planting units with fewer than two stems will not be accepted. Prior to shipping, roots should fill the entire volume of the liner, but should not be root bound.

C. Micropropagation - Planting units grown from approved sources via micropropagation techniques may be accepted. However, planting units derived from micropropagation techniques shall not exceed 25% of the total number of planting units delivered.

D. Inspections - The Contractor shall provide the Engineer and Owner with access to all nursery operations in the manner and time frame requested by the Owner for the purpose of performing compliance inspections of the propagation and production methods being employed by the Contractor.

6.5 PLANT SIZE, AGE, AND CONDITION

A. Plant Size - Planting units shall be no less than 8 inches, and not more than 16 inches in height, as measured from the top of the root ball to the apical meristem. The Engineer will reject any plants not meeting these size constraints.

B. Plant Age - Deliverable planting units shall be 90-days to 120-days old, as measured from the approximate time of germination. The Engineer may reject planting units younger or older than this specification.

C. All planting units provided shall have moist, vigorous root systems free of rot, disease, or discoloration at the time of delivery and installation. The Engineer will reject planting units not meeting these specifications. Planting units rejected will not be considered as delivered to the site and will not be eligible for payment for production, delivery, or other costs.

D. Number of Planting Units Delivered - Planting units delivered to the work site shall be contained in consistent, accessible, and uniform packing materials, such as waxed boxes. Each box delivered to a work site will be subject to planting unit inspection and counting. A standard number of within-specification planting units (e.g., 500 per box) for the packaging will be established before the Engineer will accept the delivery of planting units to the work site. The Engineer will reject boxing of planting units, which contain fewer than the established standard number of within-specification planting units. If more than one box is found to contain fewer than the established standard planting unit count, all boxes of plants delivered to the work site with the substandard boxes will be rejected.
Boxes of planting units found to contain more than the standard number of planting units will be considered to contain only the standard number of planting units per box.

6.6 PLANT MATRIX

A. Plants shall be installed in accordance with the matrix below and as shown on the Drawings.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Plant Spacing (ft)</th>
<th>% of total planting area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sea Oats</td>
<td>Uniola paniculata</td>
<td>2</td>
<td>50 (min)</td>
</tr>
<tr>
<td>Bitter Panicum</td>
<td>Panicum amarum</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Salt Meadow Cordgrass</td>
<td>Spartina patens</td>
<td>2</td>
<td>30</td>
</tr>
</tbody>
</table>

The final planting matrix and distribution shall be approved by the Owner and included as part of the planting plan as described in this Specification, Paragraph 6.2.C.

6.7 PLANTING DEPTH

A. All planting units shall be installed at a minimum depth of 6 inches (8 inches preferred), as measured from the top of the root ball to the sand surface. The Owner will reject plants not installed at or below this depth. Planting units which are out-of-specification with regard to the provisions of this planting unit depth specification will be planted solely at the Contractor’s risk, and will be subject to all of the survival criteria and warranty provisions detailed below, in Paragraph 6.11 “SUCCESS CRITERIA”.

6.8 PLANT SPACING

A. Planting units shall be planted in rows, with the most seaward row being along the marked lower limit of the planting zone on the Drawings. Successive rows of sea oats, bitter panicum, and salt meadow cordgrass shall be 24 inches apart and parallel to the seaward row. Planting units in each row shall be planted on 24-inch centers. Planting units in each row shall be staggered mid-way (in the shore-parallel direction) between planting units in the adjacent rows. Planting units which are out-of-specification with regard to the provisions of this planting unit depth specification will be planted solely at the Contractor’s risk, and will be subject to all of the survival criteria and warranty provisions detailed below, in Paragraph 6.11 “SUCCESS CRITERIA.”

6.9 FERTILIZER

A. The Contractor shall place approximately 1-2 tablespoons of Milorgonite, or Engineer-approved substitute, with an N:P:K ratio of 18-6-12, plus trace elements, beneath the root zone of each planting unit during installation. The fertilizer shall conform to the applicable State of Georgia fertilizer laws. The Contractor, if approved by the Engineer, may undertake maintenance fertilizer during the warranty period. Maintenance fertilization shall not be applied within 60 days of the end of the warranty period. The cost of any maintenance fertilization shall be included in the installation unit cost schedule that accompanies the Contractor’s Bid. Maintenance fertilization, if employed, shall be undertaken in a manner that complies with all environmental permits applicable to the project site.

6.10 WATER

A. The Contractor shall water in (initially irrigate) all newly installed planting units such that the root zone of all newly installed planting units is thoroughly saturated. The amount of water needed for the initial irrigation will vary due to site soil texture and exposure. The Contractor shall use 3-4 ounces of pre-expanded Terrasorb, Hortasorb, or similar approved product for the initial “water in”
irrigation. Additional irrigation is not required; however, if the Contractor believes that additional irrigation is needed to meet the required plant survival criteria, the Contractor shall notify the Engineer and Owner. Water shall be fresh and free from injurious amount of oil, acid, alkali salts, or other materials harmful to the growth of the plants. The Contractor will be responsible for obtaining and applying all irrigation water required. The Contractor shall remove irrigation systems and other structures placed during plant installation after the plantings are established. The Contractor shall comply with all applicable permits and ordinances.

6.11 SUCCESS CRITERIA

A. The success of the planting effort will be assessed by the Owner approximately 180 days after completion of the planting unit installation (for the entire project) using three measures: whole-site survival rate, planting unit survival pattern, and planting unit root penetration. The planting effort shall be deemed a success and acceptable if all three of the described criteria are met at the 80% level.

B. Whole-Site Survival Rate - Minimum survival rate of 80% of all planting units installed over the site as a whole shall be achieved. Plants will be considered to be surviving if they show clearly vigorous rhizome and white, turgid roots, even in the absence of vital above ground growth.

C. Survival Pattern - A minimum of 80% of the planting width perpendicular to the shoreline shall be occupied by surviving planting units at all locations. This planting zone closure is needed to minimize the risk of dune overwash during storm events. This success criterion may be waived, at the discretion of the Owner, in areas where plant survival has been adversely impacted by unexpected pedestrian traffic.

D. Root Penetration - A minimum of 24 out of 30 (80%) randomly selected plants shall have achieved root penetration of 9 inches or greater, as measured from the top of the root ball down. The 30 randomly selected plants used to determine this measure of success shall be tagged in the field by the Contractor and the Owner immediately following plant installation. This success criterion may be waived, at the discretion of the Owner, if lesser root penetration is otherwise determined to be acceptable, or if it was caused by factors outside the control of the Contractor (e.g., excessive natural rainfall).

E. Replanting of Units - If any of the above success criteria are not met, as determined by the Owner, the Contractor shall replant with viable, and within specification, planting units in all areas considered to be deficient according to the planting unit success criteria. The replanting of planting units will be the sole responsibility of the Contractor and be completed at no cost to the Owner. All warranty and survival provisions and requirements will apply to replanted planting units.

F. Initial Planting Unit Survival - Planting units that do not survive for a minimum of 10 days after installation will be rejected and not be considered eligible for payment. New, within specification, planting units will be installed by the Contractor in areas that do not survive for a minimum of 10 days. Contractor will be responsible for installing the new replacement planting units within five days of notification by the Owner or Engineer that an area of initial planting units did not survive for 10 days. The replacement planting units will be considered eligible for payment as “original” planting units only after they have survived a minimum of 10 days from installation.

7.0 VIBRATION MONITORING AND CONTROL

A. The Contractor is required to implement a program that protects existing structures from damages that result from construction equipment and vibrations. The purpose of the program is to avoid damages and potential claims that allege damages were caused by construction activities. The Contractor is responsible to document pre-existing conditions, to avoid damaging existing
structures that were determined to be susceptible to vibration damage, and to avoid damaging existing structures that were not determined to be susceptible to vibration damage; related responsibilities include inspection, damage claims, and Work stoppage that results from monitoring. The program will be described in the Vibration Monitoring and Control Plan.

B. Within 20 calendar Days after Notice of Award and prior to Mobilization of equipment, submit a Vibration Control Plan. Submit the Vibration Control Plan for compliance with the requirements in paragraph Vibration Control Plan below. The plan shall include, but not be limited to, the following:

1. List of structures that are susceptible to vibration damage.

2. Number of monitors (seismographs) required for the Project and location of monitors that will operate simultaneously in each Work area.

3. Calibration data for each seismograph that will be used for the Project. Calibrations shall be current, not older than one year, and follow the manufacturer’s recommended procedures.

4. List of methods and procedures to reduce ground vibrations induced by construction activities to below the pre-determined maximum allowable vibration level for the designated vibration sensitive structure(s); i.e., reducing equipment speed, changing Work locations, reducing equipment size, and using manual labor.

5. Plan for each Work area showing the proposed construction equipment in the area, the description of susceptible structure(s) in the Work area, monitors in the Work area, and the list of methods and procedures in subparagraph d. above.

6. The minimum safe working distance that vibration producing equipment may operate from each vibration sensitive structure(s).

7. The maximum allowable ground vibration level that is permissible without causing threshold damage to each vibration sensitive structure(s).

8. Plan to report and monitor noise levels at construction activities.

C. Provide baseline noise levels for initial monitoring report and bi-weekly thereafter or as directed by Engineer.

D. Pre-Construction Structural Survey: The Contractor shall within 15 calendar Days after Notice of Award and prior to Mobilization of equipment, submit a Pre-Construction Structural Survey.


F. Post-Construction Structural Survey: Submit the Post-Construction Structural Survey within 15 calendar Days after completion of the inspection.

G. The Contractor shall process any claim arising from his operation; in particular, all property damage claims shall be acknowledged by the Contractor (or his agent) immediately, and the claimed damage inspected within 30 calendar Days following initial notification, and processed to a conclusion (honored, denied, or compromised) within 90 calendar Days after completion of the contract; but, in no case shall the claim(s) remain unresolved for a period exceeding six months.
8.0 MEASUREMENT FOR PAYMENT

8.1 MOBILIZATION AND DEMOBILIZATION

A. All of the Contractor's labor and equipment costs connected with mobilization and demobilization shall be included within the applicable line items indicated on the Bid Schedule of the Contractor's proposal. The mobilization is payable to the Contractor after 1,000 cubic yards of material have been delivered and placed within the project site beach/dune fill area. Truck tickets will be used to verify the volume. The demobilization will be paid upon final completion and acceptance of the entire project.

B. All costs associated with the work and not specifically included in other Bid items shall be included in the Mobilization/Demobilization line item.

8.2 GEOTEXTILE SEPARATOR

A. Payment for geotextile separator shall be per the terms of the Contract Agreement and Schedule of Values, inclusive of all materials, labor, clearing and grubbing, grading, surveys, and earthwork which is incidental to installation.

8.3 BEACH AND DUNE TEMPLATE FILL

A. In order to document beach and dune template fill progress, the Contractor shall load and count the trucks used to transport the fill from the borrow area or transfer point to Jekyll Island and the beach fill site, whichever is closest to the beach placement area. The trucks shall each be designated with a target capacity, loaded with fill, and bucket loads to fill the truck counted. The Contractor shall have available such equipment as will be necessary to collect the fill, store the fill, and load the transport trucks without interruption. The Contractor shall provide a “load ticket” for each truckload citing the observed volume of material in the truck, the date of delivery, and the project name; these tickets will be the delivered fill quantity. During construction, by 10 AM each day, the Contractor shall provide to the Owner’s Representative a daily log including (1) a summary table of all truck loads of sand delivered to the site during the prior day including the net cubic yardage and the location of delivery for each truckload, and (2) the total estimated cubic yardage of sand delivered through the prior day. With the Contractor’s requests for payment under this bid item, the Contractor shall provide the Owner with copies of all truck tickets and survey profiles for the completed sections.

B. Payment for beach and dune template fill shall be made on the basis of the quantity (cubic yards) of beach compatible sand satisfactorily placed within the lines, grades, and locations indicated on the Drawings (unless modified by the Owner or Engineer), as measured by the Contractor’s pre- and post-construction surveys. Payment calculations shall be made by the Contractor and verified by the Engineer using the average end-area method based on net quantities of beach fill placed, graded, and within the tolerances described in this specification. Any fill above the 6-inch tolerance shall be deducted from the gross fill quantities and payment shall be based on the net fill quantity. Similarly, any fill placement below the 6-inch tolerance may be subject to deductions, at the discretion of the Engineer.

C. Payment for all materials and labor shall be made by the Owner to the Contractor according to the unit prices indicated on the Bid Schedule for materials actually used in the construction and accepted by the Owner.

D. The Contractor is advised that the excavation and beach fill quantities for the purposes of payment may be adjusted by the Owner, prior to delivery to the site, without renegotiation of unit price or terms.
8.4 VEGETATION PLANTING

A. Payment will be made for furnishing and planting the plant matrix specified in this section and all costs in connection therewith or incidental thereto shall be included in the contract per plant price for dune vegetation planting Bid Items. Eighty Percent (80%) of the payment will be made upon Contractor meeting the initial 10-day success criteria outlined in this Specification, Paragraph 6.11. The remaining 20% of the payment will be made upon Contractor meeting the 180 day success criteria outlined in this Specification, Paragraph 6.11.

END OF SECTION
SECTION 03540
SAND-FILLED GEOTEXTILE TUBE

PART 1 – GENERAL

1.1 DESCRIPTION

A. Contractor shall furnish all labor, materials, equipment, and incidentals as shown, specified, and required in connection with manufacture, deployment, anchorage, and filling of the woven geotextile tube container, scour apron, and anchor tube(s) with beach compatible sand, in accordance with the lines, grades, locations, design, and dimensions shown on the Drawings and specified herein.

1.2 QUALITY ASSURANCE AND MANUFACTURER QUALIFICATIONS

A. Manufacturer’s Experience: The manufacturer shall have actively manufactured (not only distributed) woven geotextile tube containers and anti-scour aprons for at least 5 successful coastal projects, with each totaling a minimum of 2,000 linear feet in length over a period of at least the last 10 years.

B. Manufacturer’s References: The manufacturer shall produce a list of three owners and three engineers testifying as to the quality of the manufacturer’s geotextile tubes and the technical support provided.

C. Manufacturer’s Engineer: The manufacturer shall have an engineer on staff possessing a minimum of 10 years experience in the following: 1) the design and manufacture of geotextile tubes and anti-scour aprons; 2) the conceptual design of coastal structures using geotextile tubes; and 3) the preparation/technical support of coastal projects using geotextile tubes. The manufacturer’s engineer’s qualifications shall be provided to the Engineer and Owner for review and approval prior to construction.

D. Manufacturer’s Certification Program: The manufacturer shall have a written certification program for Installers and Inspectors that has been in use for at least 5 years.

E. Local Knowledge: The manufacturer shall demonstrate acceptable knowledge of local conditions to include: tides, currents, soil types and local regulatory agencies; so as to advise the Owner and Engineer on how best to utilize the manufacturer’s product.

F. Production Quality Assurance Program: The manufacturer shall demonstrate an acceptable QA program that has been in use in the production of geotextile tubes for a period of not less than 10 years, under the direction of an engineer specialized in geotextiles who has been working with the manufacturer for a minimum of 5 years.

G. Independent Testing: The geotextile tube manufacturer must utilize the services of an independent bonded laboratory to verify compliance to specified properties. In-house testing is not acceptable.

1.3 SUBMITTALS

A. Fabrication Drawings.

1. Contractor shall submit shop drawings of the materials, equipment and method of installation details for the complete system.
2. Contractor shall submit a Plan of Construction. The plan of construction shall address the approach and techniques required for the following:
   a. Fabrication of the geotextile tubes, scour aprons, and anchor tubes
   b. Construction site preparation
   c. Placement of the scour apron and anchor tubes
   d. Geotextile tube deployment and filling
   e. Equipment to be used for geotextile tube placement and filling
   f. Hydraulic fill characteristics and water control

3. Contractor shall submit geotextile tube container manufacturers shop drawings, product literature and specifications for materials utilized to construct the geotextile tube container and related components, including anticipated filled dimensions.

B. Laboratory Test Report: The Contractor shall submit a report from an independent lab testifying that the material(s) utilized meet the requirements detailed in Tables 1 and 2 of this specification.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Geotextile tube container and related components shall be delivered to the project site in a protective wrap or cover. Each geotextile tube container shall be clearly labeled for easy identification.

B. No hooks, tongs or other sharp instruments shall be used for handling geotextile tube container, nor should the geotextile tube container be dragged along the ground. Geotextile tube container shall be unrolled into position as recommended by the manufacturer.

C. Geotextile tube container shall be stored in areas where water cannot accumulate, elevated off of the ground and protected from conditions that will affect the properties or performance of the geotextile. Geotextile tube container shall not be exposed to temperatures in excess of 140° F or as specified by the manufacturer, whichever is less. Duration of outdoor storage time shall not exceed manufacturer’s recommendation. Exposure to direct sunlight prior to installation shall not be longer than 14 days.

PART 2 - PRODUCTS

2.1 GEOTEXTILE TUBE CONTAINER MATERIAL

A. Geotextile tube container material: The geotextile tube shall be fabricated from a specially engineered marine textile manufactured from high tenacity polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position to each other and then combined with a non-woven fabric to form a composite. Geotextile tube container material shall be inert to biological degradation and resistant to naturally encountered chemicals, alkalis and acids, and meet the specifications detailed in Table 1. The manufacturer may propose to the Contractor and Engineer alternate specifications according to site conditions. Such proposed deviations from Table 1 require written approval of the Engineer.

B. Geotextile tube container shall be fabricated by sewing together mill widths of the specially
engineered textile to form a tubular shape of lengths to suit Contractor’s installation methods and equipment, in accordance with manufacturer’s recommendations. The seams shall be parallel stitch lines with 0.4” spacing and utilizing a FL 401 stitch. The sewing thread for both the needle as well as the looper shall be a 12 chord “S twist” multi-ply polyester filament yarn.

C. Each geotextile tube container shall be fabricated with one or more 8 inch to 12 inch filling ports located no more than 40 ft intervals along the top centerline of the geotextile tube container, or per manufacturer’s recommendations, whichever is less.

D. Pressure relief ports shall be located no more than 15 ft from each end of geotextile tube container, or as recommended by the manufacturer.

E. Fabric and factory sewn seams utilized in the construction of the geotextile tube container shall meet or exceed the values shown in Table 1.

F. Each geotextile tube container must be fabricated with “flat ends” to maintain tight junctions between adjacent geotextile tube containers and to provide a consistent elevation throughout project length. “Flat ends” shall be fabricated with sewn in end panels that match the cross section of the filled geotextile tube container.

Table 1. Material for Composite Primary Geotextile Tube Container (minimum values)

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Method</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide Width Ultimate Tensile Strength MD/CMD</td>
<td>ASTM D4595</td>
<td>kN/m</td>
<td>83 / 136</td>
</tr>
<tr>
<td>Wide Width Ultimate Elongation</td>
<td>ASTM D4595</td>
<td>%</td>
<td>20/20</td>
</tr>
<tr>
<td>Factory Seam Strength</td>
<td>ASTM D4884</td>
<td>kN/m</td>
<td>88</td>
</tr>
<tr>
<td>Tube Operating Strength Circumferential</td>
<td>ASTM D4595/4884</td>
<td>kN/m</td>
<td>88</td>
</tr>
<tr>
<td>Direction after seaming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tube Operating Strength Axial Direction</td>
<td>ASTM D4595/4884</td>
<td>kN/m</td>
<td>83</td>
</tr>
<tr>
<td>after fabrication at nose &amp; top</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apparent Opening Size (AOS)</td>
<td>ASTM D4751</td>
<td>mm</td>
<td>0.15</td>
</tr>
<tr>
<td>Flow Rate (min)</td>
<td>ASTM D4491</td>
<td>l/min/m²</td>
<td>600</td>
</tr>
<tr>
<td>UV Resistance (% strength retained at 500 hrs)</td>
<td>ASTM D4355</td>
<td>%</td>
<td>99</td>
</tr>
<tr>
<td>Weave Style</td>
<td>n/a</td>
<td>n/a</td>
<td>rip-resistant</td>
</tr>
<tr>
<td>Pressure Relief Band</td>
<td>n/a</td>
<td>inch</td>
<td>4</td>
</tr>
<tr>
<td>Port Design</td>
<td>n/a</td>
<td>n/a</td>
<td>reinforced radial shirt-sleeve</td>
</tr>
<tr>
<td>Color</td>
<td>n/a</td>
<td>n/a</td>
<td>sand</td>
</tr>
</tbody>
</table>

2.2 PRODUCT AND MANUFACTURER

Primary geotextile tube container shall be TITANTube OS550C provided by:

Flint Industries Inc
1040 East Lillian Street, Metter
GA USA 30439
or Engineer approved equal.

2.3 ANTI-SCOUR APRON AND ANCHOR TUBE MATERIAL

A. Anti-scour Apron and Anchor Tube Material: The anti-scour apron and anchor tubes shall be provided by the primary geotextile tube manufacturer and meet the minimum specifications detailed in Table 2.

B. Anti-scour apron shall be fabricated by sewing together multiple mill widths of textile oriented in the longitudinal direction. Anti-scour apron width shall be per the manufacturer’s recommendations relative to the site exposure and main geotextile tube size. Four (4) ft. circumference anchor tubes shall be integral to the anti-scour apron and located along the entire seaward side of the main geotextile tube.

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Method</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide Width Ultimate Tensile Strength</td>
<td>ASTM D4595</td>
<td>kN/m</td>
<td>70 / 53</td>
</tr>
<tr>
<td>MD/CMD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide Width Ultimate Elongation</td>
<td>ASTM D4595</td>
<td>%</td>
<td>20/20</td>
</tr>
<tr>
<td>Factory Seam Strength</td>
<td>ASTM D4884</td>
<td>kN/m</td>
<td>35</td>
</tr>
<tr>
<td>Apparent Opening Size (AOS)</td>
<td>ASTM D4751</td>
<td>mm</td>
<td>0.300</td>
</tr>
<tr>
<td>Flow Rate (min)</td>
<td>ASTM D4491</td>
<td>l/min/m2</td>
<td>600</td>
</tr>
<tr>
<td>UV Resistance (% strength retained at 500 hrs)</td>
<td>ASTM D4355</td>
<td>%</td>
<td>95</td>
</tr>
<tr>
<td>Weave Style</td>
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<td>n/a</td>
<td>rip-resistant</td>
</tr>
<tr>
<td>Rip-Stop Technology</td>
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<td>n/a</td>
<td>yes</td>
</tr>
<tr>
<td>Reinforced Seaming Band</td>
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<td>inch</td>
<td>4</td>
</tr>
<tr>
<td>Open-End Ports</td>
<td>n/a</td>
<td>n/a</td>
<td>yes</td>
</tr>
<tr>
<td>Color</td>
<td>n/a</td>
<td>n/a</td>
<td>sand</td>
</tr>
</tbody>
</table>

2.4 UV SHROUD PROTECTION

If Contractor proposes an alternate to the primary geotextile tube specified in Paragraph 2.2, the manufacturer shall provide protection of the main geotextile tube from ultraviolet (UV) exposure degradation during a period typical of the life span of the main geotextile tube via a UV shroud attached to the top portion of the geotextile tube container, corresponding to a 90-deg arc with apex located at the approximated center of the tube or any portion of the tube that is exposed to direct sunlight.

A. UV Shroud Material: The UV shroud shall be fabricated from materials of minimum requirements as detailed in Table 2. Other alternatives, which are documented to provide similar, 100 percent protection from UV during a period typical of the life span of the specified geotextile tube may be proposed by the Contractor, and shall be included in the Plan of Construction. Alternative UV protection must be approved by the Engineer, in writing, prior to its use.
B. The UV Shroud shall be sewn to the geotextile tube unit along longitudinal and end seams and fill ports so that the shroud has no loose edges. The UV Shroud shall be sized so that upon completed filling of the geotextile tube units, the UV Shroud is taut and flush with the geotextile tube unit and the entire bottom surface of the UV Shroud is in contact with the outer surface of the geotextile tube unit. The composite seam, which includes both the geotextile tube material and the UV Shroud material, shall be designed and manufactured so that it complies with the wide width strength requirement for seams of the geotextile tube material.

2.5 ALTERNATE GEOTEXTILE MATERIALS

A. Alternate geotextile container materials shall not be used unless submitted to the Engineer and approved in writing by the Engineer prior to award of the contract. The Engineer shall have absolute authority to reject or accept alternate materials based on the requirements of this Section and the Engineer’s judgment. Certain material properties of the container are critical to the fabrication and serviceability of this application. In order to be considered, submittal packages for alternate geotextile tube materials must include:

1. A list of 10 comparable projects, in terms of size and applications, in the United States, where the results of using the specific alternate material can be verified after a minimum of 3 years of service life.
2. A sample of the alternate container material and certified specification sheets. The alternate material must meet or exceed the specifications in Tables 1 and 2.
3. Recommended fabrication and installation instructions.
4. Additional information as required at the discretion of the Engineer.

2.6 FILL MATERIAL

A. Fill material utilized to fill geotextile tube container shall consist of beach compatible sand from the approved upland site for the project.

B. Testing of fill material. Gradation testing of geotextile tube sand fill materials shall only be necessary if required by the Engineer. Gradation testing, if required, shall be conducted by the Contractor at no cost to the Owner, in accordance with ASTM D 422 and ASTM D 1140. The sample of fill material should be taken near the center of each tube and should be representative of material throughout the tube. The sample should be obtained from a filling port as a core taken through the vertical extent of material in the tube. The geotextile tube fabric shall not be punctured. Results of gradation testing shall be provided to the Engineer within 3 days after the sample is taken. If sampling proves the fill materials to be not beach compatible, to the satisfaction of the Engineer, the Contractor shall replace the geotextile tube.

PART 3 - EXECUTION

Prior to performing any work, the Contractor shall submit a Plan of Construction describing the sequences of operations for the installation of the geotextile tube container and scour aprons. The plan shall address site preparation, deployment and filling of the geotextile tube container and scour aprons, and anchoring methods. Equipment used for these operations shall also be outlined.
3.1 SITE PREPARATION

A. Areas in which geotextile tube containers are to be placed shall be constructed to the lines and grades shown on the Drawings. Where such areas are below the allowable grades, they shall be brought to grade as shown in the Drawings. No excavation shall be done in the area within 20 ft of the existing erosion scarp line at the time of construction. All obstructions, which could damage the anti-scour apron, anchor tubes, and/or geotextile tube containers, such as roots, debris, and projecting stones, shall be removed. Any damage to the geotextile tube components, resulting from the Contractor’s failure to remove obstructions, shall be repaired or replaced at no additional cost to the Owner.

B. Immediately prior to placing the anti-scour apron and geotextile tube container, the prepared area shall be inspected by the Engineer. No aprons or geotextile tube containers shall be placed thereon, until the area has been approved by the Engineer.

3.2 PLACEMENT OF ANTI-SCOUR APRON

Place the anti-scour apron and anchor tubes in accordance with the lines, grades and dimensions shown on the Drawings. The ends of each apron shall be overlapped a minimum of 5 feet. Anti-scour apron shall be held in position as directed by the manufacturer, until the anchor tube(s) are filled and the geotextile tube is in place. In no case shall any stakes be driven through the anti-scour apron.

3.3 PLACEMENT OF GEOTEXTILE TUBE CONTAINER

A. Place geotextile tube container within the limits shown on the Drawings.

B. No portion of the geotextile tube container shall be filled until the entire geotextile tube container segment has been fully anchored to the foundation along the correct alignment. Means of assuring that the geotextile tube container are properly aligned and anchored shall be incorporated into the placement methodology presented in the Plan of Construction.

C. Before injection of fill material, adjacent geotextile tube containers shall be butted together so that there are no gaps between the geotextile tube containers, unless shown otherwise in the Plan of Construction. Beneath the geotextile tube container, the ends of each anti-scour apron shall be overlapped a minimum of 5 feet.

3.4 INJECTION OF FILL MATERIAL

A. Following the apron and geotextile tube container placement, filling with beach compatible sand materials from the approved upland sand source shall be accomplished in accordance with the approved Plan of Construction.

1. Geotextile tubes shall be hydraulically or gravity filled with equipment appropriately sized for above-water filling activities and the tube sizes utilized. Fill material shall be slurried and pumped into the tube. Water for creation of a sand slurry may be obtained by extending an intake into the ocean. Such intake shall be floating and properly screened to exclude any benthic organisms or other wildlife. Any intake hose or pipe extending into the ocean shall be brought to shore and secured above the intertidal zone at the end of each work day. Any excess discharge shall be directed away from the geotextile tube container into a designated area.
2. Typically, the fill pipe should be limited to 8 inches diameter or smaller. Fill pipes below 6 inches diameter may be too small to adequately fill the geotextile tube container to the proper height. A reducer may be required to fill the anchor tubes. Care should be taken not to overfill or over pressurize the anchor tube that is incorporated into the anti-scour apron.

3. The fill pipe shall be free of protrusions that could damage the scour apron or geotextile tube container. Excessive movement of the fill pipe during filling can result in damage. The Contractor shall consult with the geotextile tube manufacturer as to the best method to affix the fill pipe to the fill port. The fill/discharge line shall be fitted with a "Y" valve to allow control of the rate of filling. The “Y” valve system shall be fitted with an internal mechanism such as a gate, butterfly valve, ball valve, or pinch valve, to allow the Contractor to regulate the discharge into the geotextile tube and anchor tubes.

4. Upon filling the geotextile tube container, the fill port sleeves shall be tied off and pushed through the mechanical port to the inside of the geotextile tube container. The fill port cover plate shall then be attached with stainless steel screws.

B. The geotextile tube container shall be filled as evenly as possible until the design height has been achieved, and excess water shall be allowed to drain adequately. The desired height is generally no more than 50% of the tube width or as specified by the manufacturer.

C. The geotextile tube container shall be prevented from shifting or “rolling” during the inflation process by securing the geotextile tube container in place as recommended by the manufacturer.

D. Once the geotextile tube containers have been properly installed, the area surrounding them is ready to be backfilled to the lines and grade as indicated on the Drawings. Contractor shall consult with the geotextile tube manufacturer for recommendations related to operation of heavy equipment near the completed tubes and scour aprons, as well as recommendations for minimum fill placement over the geotextile tubes and scour aprons prior to operation of tracked or rubber wheeled construction equipment for the purposes of sand fill placement and grading. Contractor shall closely follow and not deviate from the minimum requirements provided by the geotextile tube manufacturer.

E. Any anchor tube or geotextile tube damaged or ruptured due to the Contractor’s failure to control injection rates, pressures, or defective materials shall be repaired or replaced at no additional cost to the Owner.

3.5 FINAL ACCEPTANCE

A. The geotextile tube structure shall be surveyed by the Contractor’s approved third party surveyor for acceptance as an as-built documentation within 10 days following completion of the geotextile tube installation, and prior to burial in sand fill. The survey shall include sufficient spot elevations to clearly document final filled geotextile tube and scour apron locations, elevations, and adjacent grades.

B. Any subsidence of the crest elevation of the geotextile tubes below the planned elevation shall be corrected by supplemental filling or replacement of the tubes that are below the specified elevation at no additional cost to the Owner. After the completion of final surveys for acceptance, the completed reach shall be examined for acceptance by the Engineer and Owner. The Contractor may then proceed with any backfill or burial with sand, according to the Drawings.
3.6 MEASUREMENT FOR PAYMENT

A. Measurement for payment of the geotextile tube shall be made at the unit rate (per linear foot installed) indicated in the Contract Agreement and Schedule of Values. The unit cost for the sand-filled geotextile tube shall include all materials, labor, transport, handling, and installation necessary and incidental to the complete sand-filled geotextile tube, including the anti-scour apron and anchor tubes.

B. No separate payment will be made for foundation preparation, placement of the anti-scour apron and anchor tubes, UV protection, excavation and transportation of borrow material, filling of the tubes, disposal of waste material, surveying, and any other incidental items associated with the proper installation of the sand-filled geotextile tubes or compliance with required permits and these specifications.

END OF SECTION
J EKYLL ISLAND
PHASE 2 SHORELINE
REHABILITATION PROJECT

SECTION E

REGULATORY APPROVALS
NOV 28 2018
Heath Hansell
Applied Technology and Management, Inc.
PO Box 20336
Charleston, SC 29413-0336


Dear Mr. Hansell:

The Shore Protection Committee considered and approved permit #465 referenced above under the Shore Protection Act O.C.G.A. §12-5-230 et. seq. The permit placard and permit conditions are attached to this letter. All decision documents, as well as all other plans, documents, and materials submitted during the application process become terms of this permit and are now enforceable conditions.

This letter and attachments are to be held by you for your files and for inspection by any authorized persons. The expiration date for the permit is five (5) years from the date of issuance. However, no construction may commence within the area of jurisdiction of the SPA until the expiration of thirty (30) days following the date of issuance, provided there is no legal appeal of this permit, you have all other necessary federal, state, and local authorizations, and you have met all of the standard and special conditions as required by this permit.

Permitted Project Description:
The proposed Phase 2 Shoreline Rehabilitation consists of approximately 16,000 ft. along the Jekyll Island oceanfront. The southern project limits are approximately 2,000 ft. south of Captain Wylly Road. The northern project limit is the Driftwood Beach Access Trail. The project is divided into two sections, the southern ~15,000 ft. area and the northern ~1,000 ft. located just north of the rehabilitated rock revetment (“transitional shoreline”). Proposed activities include the limited removal of debris, sand placement, dune construction, construction of a rock revetment return, installation of a Geotextile Tube, and construction of public access paths and crossovers.

Limited Removal of Debris

1. To insure adequate and efficient placement of sand fill material, the applicant is proposing to remove downed and dead trees, limbs, vegetation, and other natural debris. The focus will be on areas landward of the rehabilitated rock revetment.

2. The large dead trees along the transitional shoreline (northern section of the project area) are considered, by the applicant, to be important to public recreation, local culture, and island history. The large trees in this area are proposed to be left in place, to the extent
practical. A representative from the JIA Conservation Office will guide and observe this effort.

3. Debris removal will utilize typical earthmoving equipment capable of selectively removing debris.

Sand Placement

4. The applicant is proposing to fill areas landward of the rehabilitated rock revetment with beach compatible sand taken from sources approved by the Department and Army Corps of Engineers (ACOE).

5. Prior to filling the area landward of the rehabilitated rock revetment, the applicant will install a geotextile filter material on the landward side of the revetment. The filter material will allow upland runoff/groundwater and overtopping during extreme events to flow through, while retaining the proposed sand materials landward of the revetment.

6. The filter material will extend down the landward slope of the rehabilitated revetment from +8 ft. NAVD to the base of the existing rock and then extend approximately 5 ft. landward on existing grade and then will be buried by the proposed sand.

7. Along the southern section of the proposed project area, sand will be placed to restore the terrace berm and dune areas that have been lost to recent erosion. The proposed terrace berm will be constructed with a mild crest slope to mimic typical existing profiles, with elevations up to +9.5 ft. NAVD88 at the landward end of the revetment and sloping up to approximately +10.0 ft. NAVD88 at the landward limit, to tie into the upland topography along the existing scarp line. Any slopes necessary to meet adjacent interface grades will be at 1V:3H or flatter.

8. The temporary/emergency sand bags placed at Villas by the Sea and The Cottages at Jekyll Island are proposed to remain in place and be buried under the beach fill as a “backstop” level of protection for extreme storm events in the future. Sand will be placed using trucks or conveyors.

9. Along the northern ~1,000 ft. of the proposed project area, a limited scale sand placement is proposed to replace eroded upper berm material to help offset the historical erosion along the shoreline and provide a more appropriate transition from the large rehabilitated rock revetment shoreline to the south and the natural Driftwood Beach shoreline area existing over 1 mile to the north.

10. The fill will generally be placed landward and directly on top of the existing scatter rocks in the area, with a 1V:10H foreshore slope to mimic typical profiles. The berm crest elevation will match the existing upland topography of approximately +7.0 ft. NAVD88.

11. The berm and fill toe will extend across the existing rock to a point near Mean Low Low Water (MLLW), this being the practical limit for land-based beach fill projects.

Dune Construction

12. The applicant is proposing to construct a dune along the length of the restored terrace berm in areas that have undergone extensive erosion and vegetation losses. Activities include construction of the dune, planting of dune vegetation, installation of post-rope railing, and sand fencing.

13. The proposed dune will be constructed, as project beach compatible materials quantities will allow, to add approximately a 2 ft. tall dune (above the constructed terrace berm), with a typical 10 ft. crest width and maximum side slopes of 1V:2H to provide additional storm protection and dune habitat.
14. The proposed dune (and approximately 50% of the width of the terrace berm, north of Albright Lane and up to approximately 90-100% of the width of the terrace berm south of Albright Lane) will be planted with approved early succession dune vegetation to mimic natural, existing vegetation in the area.

15. Initial planting of the new dune area would likely include: Sea Oats (Uniola paniculate), Bitter panicum (Panicum amarum), Salt meadow cordgrass (Spartina patens), and Spanish bayonet (Yucca aloifolia). After these plants become fully established, the applicant may plant additional larger species in future growing seasons, including, but not limited to, Silverleaf croton (Croton punctatus), Yaupon holly (Ilex vomitoria), Saw palmetto (Sereno repens), Tough bully (Brumelia tenax) and Sand Live Oak (Quercus geminata). Specific planting types and spacing will be coordinated closely with the applicant and the Department.

16. The applicant is proposing to install post-rope railing to delineate the vegetated areas and discourage foot traffic into the revegetated berm and dune area.

17. In addition, sand fencing is proposed along the landward limit of the fill/vegetated area to help minimize sand loss to landward areas of the residential properties and assist in containing the sand project area.

18. The applicant is requesting that sand fencing placed landward of the rehabilitated rock revetment be installed in a manner not specifically outlined in the Department’s Sand Fencing Guidelines.

**Rock Revetment Return**

19. Along the northern portion of the project (where the Phase 1 rehabilitated rock revetment terminates), the applicant proposes the construction of a rock revetment return. The return would be constructed of similar armor stone used in Phase 1.

20. Return sections of coastal structures are a critical component to ensure the integrity of the structure is not compromised due to water and wave energy coming around the back of the structure leading to erosion, scouring, and instability.

21. The proposed rock revetment return is designed in accordance with the USACE’s Coastal Engineering Manual to provide protection under a range of extreme storm conditions. The portion of the return section not lying over exiting rock, will be underlain with geotextile composite or a similar marine foundation to reduce potential for settlement over time, as well as, limit ground disturbance.

**Geotextile Tube**

22. Along the northern portion of the project area (north of the rehabilitated rock revetment), the applicant is proposing to install a sand filled geotextile tube product along the existing erosional scarp line.

23. The tube will be 22.5 ft. in circumference or smaller and will be buried by the proposed beach fill described above. It will be installed approximately where the proposed rock revetment return section meets the upland/scarp line and extend north to the approximate terminus of the project area. This protection measure will provide additional erosion protection for the end of the return section, as well as, the upland areas.

24. Typically, geotextile tubes are required to be filled with wet sand slurry. The applicant has proposed to fill the tube by mixing the upland imported fill material with a small hopper pump placed offshore. The small pump will include a float to ensure it remains off the sea bottom, and guards/grills to ensure no marine life is affected by the pump. As the tube is
filled, the clear excess water exits the tube through the geotextile perforations and drains onto the beach and back to the ocean.

Public Access Paths and Crossovers

25. At available locations, dune paths and/or wooden dune crossovers are proposed to provide public access to both the proposed upper terrace area, as well as, the low water beach seaward of the rock revetment.

26. New crossover structures are proposed at the following street end locations: Barron, Bliss, Nelson, Tyler, Porter, Ellis, Albright, Stewart, Austin, Gould, and at the proposed rock revetment return. The applicant is proposing crosswalks to be 6 ft. wide with a 15 ft. x 15 ft. overlook. All new crosswalks will be constructed approximately 36 in. above the proposed dune and terrace sand area.

27. All existing crossovers will remain. Existing crossovers are located at Oceanview Park, Holiday Inn, Brice, King, Dexter, Thorne, the Cottages at Jekyll, and Villas by the Sea.

**Standard and Special conditions apply to this permit.**

**Permit Placard:**
Enclosed is the permit placard to be posted at the work site (within 24 hours) for the duration of the construction activity.

**Post Construction Requirements: Compliance Certification and File Maintenance**
Also enclosed is a Certification of Compliance that must be submitted to us within 30 days following completion of the permitted activity. Please include this compliance form with the post-construction survey, if required under the special conditions. Department staff will assess compliance and provide you with a written verification of project completion and compliance.

**Conveyance of Ownership Interest:**
If you as the permit holder sell, lease, rent, or otherwise convey the land or any portion of the land for which the permit was issued, you must notify the Department within 30 days of this transfer or conveyance. The permit shall continue in force in favor of the new owner, lessee, tenant, or other assignee so long as there is no change in the use of the land as set forth in the original application. The Department will transfer the permit to the new owner with all of the original terms and conditions.

We ask that you carefully read through this document and attachments and comply with the terms and conditions of this permit. Feel free to contact me if you need clarification of any of these conditions or for assistance with this project.

Sincerely,

[Signature]

Jill Andrews
Chief, Coastal Management Section

**Enclosures:** SPC Permit #465 and Permit Conditions, Revocable License, Compliance Certificate, Permit Placard, Drawings

**File:** SPA20180008
Shore Protection Committee Permit #465
Final Conditions
November 9, 2018

Jekyll Island State Park Authority
Shore Protection Act Permit #465
Jekyll Island, Glynn County, Georgia

Project Description: The proposed Phase 2 Shoreline Rehabilitation consists of approximately 16,000 ft. along the Jekyll Island oceanfront. The southern project limits are approximately 2,000 ft. south of Captain Wyly Road. The northern project limit is the Driftwood Beach Access Trail. The project is divided into two sections, the southern ~15,000 ft. area and the northern ~1,000 ft. located just north of the rehabilitated rock revetment ("transitional shoreline"). Proposed activities include the limited removal of debris, sand placement, dune construction, construction of a rock revetment return, installation of a Geotextile Tube, and construction of public access paths and crossovers. Standard and Special conditions apply to this permit.

SHORE PROTECTION ACT O.C.G.A. § 12-5-230
STANDARD PERMIT CONDITIONS

1. The project must comply, as applicable, for areas permitted herein, with all other Federal, State, and local statutes, ordinances, and regulations, and the applicant must obtain all licenses and permits prior to commencement of construction.
2. This permit does not resolve actual or potential disputes regarding ownership of or rights in or over the property upon which the subject project is proposed, and shall not be construed as recognizing or denying any such rights or interests.
3. All plans, documents, and materials contained in this permit application, required by the Shore Protection Act O.C.G.A. 12-5-230 et. seq. are a part of this permit and conformance to such plans, documents, and materials are a condition of this permit. No change or deviation from these plans, documents, and materials shall be permitted without prior notification and approval by the Department or Committee.
4. No further encroachment or construction shall take place within State jurisdiction, except as permitted by the Shore Protection Committee. Any modification of the plans or structure in the jurisdictional area must be reviewed and approved by the Department prior to construction.
5. A construction placard will be required to be obtained from the Department up to 30 days prior to the start of project construction and must be posted at the site. This placard will include...
certain steps in the construction of the permitted project that must be approved by the Department prior to construction.

6. The exact location and configuration of this project must be reviewed onsite and approved by Department staff immediately prior to beginning construction. Minor changes to the location may be allowed or required in areas that have eroded or accreted subsequent to the original jurisdictional determination.

7. No construction materials may be disposed of in the jurisdictional area of the Shore Protection Act.

8. Any incidental impacts associated with the construction of this project must be rectified by restoring areas to their pre-construction topographic and vegetative states.

9. The public shall maintain rights of ingress and egress on the foreshore beach area seaward of the ordinary high water mark.

10. If the permitted improvements are damaged, fall into disrepair, become dilapidated, are not meeting their expected usefulness, or are not maintained at a serviceable level, then it is the responsibility of the owner to remove the improvements. A new permit will be required to retain and repair the structure, improvement or asset if it loses its structural integrity and is no longer serviceable.

11. The Shore Protection Committee is not bound in the future to protect any asset or improvements authorized by the permit.

12. The permit must be posted onsite within twenty-four (24) hours of beginning construction.

13. A copy of the above conditions must be supplied to the person in charge of construction.

**SHORE PROTECTION ACT O.C.G.A. 12-5-230**

**STANDARD PERMIT CONDITIONS FOR DUNE CROSSWALKS**

Only one crosswalk structure shall be allowed on a parcel. In considering the design and routing of a crosswalk, the shortest route over the lowest area of the dunes shall be plotted to minimize impacts to the sand sharing system. For new construction, no decks or viewing platforms will be approved in the jurisdictional area. Previously permitted and grandfathered structures may be maintained provided they are serviceable. Additionally, the applicant requesting the structure must own 100% of the private lands through which the structure crosses or have the express written permission of the owner.

The following standard conditions shall apply to dune crosswalks:

1. The height of the structure shall be at least 36” above the grade of the sand dune and the width shall be no greater than 6’ as measured from the outside posts, to allow for sand movement or accretion in the dynamic dune field.

2. The terminal point of the crosswalk shall be seaward of the seaward most dune but shall not encroach seaward of the ordinary high water line in the active intertidal beach.

3. If the shoreline erodes and the crosswalk extends seaward of the ordinary high water line, it will be the responsibility of the applicant to move the permitted improvements back to the dry sand beach, landward of the ordinary high water line.

4. The structure shall begin at the toe of the landward most dune.

5. Heavy equipment is prohibited in the Shore Protection Act jurisdiction. This project must be constructed using hand tools.
6. Clearing and grading of dunes is not authorized in conjunction with the construction of this project; stockpiling of materials in the dunes is prohibited.

7. Vegetation may be cleared only for the width of the permitted structure. The maintenance trimming of jurisdictional vegetation will only be allowed within 6” of the sides of the structure and 7” high over the structure.

8. No motorized vehicles are permitted on the crosswalk structure, except for motorized wheelchairs for handicapped persons.

9. Any sand needed to restore the site to pre-project vegetated and topographic conditions, or for backfilling, must be beach quality and obtained from an upland source and not from the beach.

**SPECIAL CONDITIONS**

1. The permittee shall submit sediment samples of the borrow sand material to the Department for approval prior to installation. Only beach quality sand suitable for sea turtle nesting, successful incubation and hatchling emergence shall be used on the project site. Fill material must be comparable in both coloration and grain size to the native beach of Jekyll Island.

2. Permittee shall coordinate with the Department and obtain approval prior to the commencement of maintenance and sand recycling events.

3. Permittee must provide a pre-construction survey of the “transitional shoreline” area to the Department prior to the commencement of construction. Post-construction cross-sectional surveys of the “transitional shoreline” area taken every 100 ft. shall be submitted to the department semi-annually.

4. A geotube monitoring plan to ensure the geotube is serviceable and remains covered with sand shall be submitted to the Department for approval prior to the installation. The monitoring plan shall include inspections done quarterly and after major storm events (as determined by the Department).

5. A geotube remediation or removal plan shall be submitted to the Department for approval prior to the installation. Such plan shall include the availability of beach quality sand stockpiled in an appropriate location in the vicinity of the island. The stockpile must be located landward of the jurisdiction of the SPA.

6. All permitted activities that would occur seaward of the rehabilitated revetment shall occur outside of sea turtle nesting season (May-October).

7. A final landscape plan must be submitted to the Department for approval prior to installation. The plan shall consist of native species to be used in the dune restoration component of the project. Landscaped trees will not change the Shore Protection Area jurisdiction and must be noted as landscaped on the final landscape plan.

8. The native landscaping may be irrigated and fertilized to establish the plants, but may not be trimmed or maintained in the future without appropriate approval from the Department or the Shore Protection Committee.

9. Sand fencing shall be implemented in conjunction with the vegetation plan to promote dune stability. Sand fencing landward of the rehabilitated revetment is not required to be installed in accordance with the Department’s guidelines.

10. The Department shall be notified prior to any maintenance performed on the permitted crosswalk structures. Should the Department determine the structure needs too frequent maintenance and/or creates excessive marine debris, the portion of the structures seaward of the OHWM shall be removed.
11. Permittee shall be required to provide a post-construction survey that locates the permitted structures as indicated in the application materials. Such survey shall comply with the Georgia Plat Act, O.C.G.A. § 15-6-67 et seq.
STATE OF GEORGIA

REVOCABLE LICENSE REQUEST FOR THE USE OF TIDAL WATERBOTTOMS

APPLICANTS NAME(S): Jekyll Island State Park Authority

MAILING ADDRESS: 100 James Rd, Jekyll Island, GA 31527

PROJECT ADDRESS/LOCATION: Jekyll Island

COUNTY: Glynn

WATERWAY: Atlantic Ocean

LOT, BLOCK & SUBDIVISION NAME FROM DEED: __________________________

DATE: 5/31/18

Georgia Department of Natural Resources
Coastal Resources Division
One Conservation Way
Brunswick, Georgia 31520-8687

I am requesting that I be granted a revocable license from the State of Georgia to encroach on the beds of tidewaters, which are state owned property. Attached hereto and made a part of this request is a copy of the plans and description of the project that will be the subject of such a license. I certify that all information submitted is true and correct to the best of my knowledge and understand that willful misrepresentation or falsification is punishable by law.

I understand that if permission from the State is granted, it will be a revocable license and will not constitute a license coupled with an interest. I acknowledge that this revocable license does not resolve any actual or potential disputes regarding the ownership of, or rights in, or over the property upon which the subject project is proposed, and shall not be construed as recognizing or denying any such rights or interests. I acknowledge that such a license would relate only to the property interests of the State and would not obviate the necessity of obtaining any other State license, permit or authorization required by State law. I recognize that I waive my right of expectation of privacy and I do not have the permission of the State of Georgia to proceed with such project until the Commissioner of DNR or his/her designee has signed a copy of this request.

Sincerely,

By: Ben Carrwell, Director of Conservation
   Jekyll Isl. State Park Auth.

By: ______________________
   (Applicant), title if applicable

The State of Georgia hereby grants you a revocable license not coupled with an interest as provided in your request. This area may now or in the future be utilized by boats employing power drawn nets under the provisions for commercial or sport bait shrimp fishing. In its occupancy and use of the premises, licensee shall not discriminate against any person on the basis of race, gender, color, national origin, religion, age, or disability. This covenant by licensee may be enforced by termination of this license, by injunction, and by any other remedy available at law to the Department. The project proposed for this license must be constructed and completed within the specified timeframe associated with the authorization and/or transmittal letter associated with this revocable license and must be maintained in serviceable condition. Otherwise, action will be initiated to revoke this license and all structures must be removed immediately at the licensee’s expense.

STATE OF GEORGIA
Office of the Governor

By: ____________
   For: Mark Williams, Commissioner-DNR
   Date: NOV 09 2018
CERTIFICATION OF COMPLIANCE
FOR THE CONSTRUCTION AND MAINTENANCE
OF PROJECTS PERMITTED UNDER
THE SHORE PROTECTION ACT

PERMITTEE:
Name: Jekyll Island State Park Authority
City or Town: Jekyll Island
Island or Waterway: Atlantic Ocean
County: Glynn
Permit Number: SPA#465

Within 30 days of completion of the activity authorized by this permit, sign this certification and return to the Marsh and Shore Management Program of the Coastal Management Section at the address listed above.

Please note that your permitted activity is subject to compliance inspections by DNR representatives before and after completion of the project. If you fail to comply with the permit terms and conditions it may be subject to suspension, modification, or revocation.

Permittee Statement
"I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit."

Signature of Permittee: ________________________________

Date: ____________________
The Georgia Shore Protection Committee

PERMIT

Issued Pursuant to O.C.G.A. 12-5-230

To: Jekyll Island State Park Authority

For: The proposed Phase 2 Shoreline Rehabilitation consists of approximately 16,000 ft. along the Jekyll Island oceanfront. The southern project limits are approximately 2,000 ft. south of Captain Wylly Road. The northern project limit is the Driftwood Beach Access Trail. The project is divided into two sections, the southern ~15,000 ft. area and the northern ~1,000 ft. located just north of the rehabilitated rock revetment ("transitional shoreline"). Proposed activities include the limited removal of debris, sand placement, dune construction, construction of a rock revetment return, installation of a Geotextile Tube, and construction of public access paths and crossovers. **Standard and Special conditions apply to this permit.**

Date: November 9, 2018
Expiration Date: November 9, 2023
Permit Number: 465
Authorized By: [Signature]

For further information, please contact the DNR Coastal Resources Division at (912) 264-7218.
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**SUMMARY OF PROJECT QUANTITIES LANDWARD OF REHABILITATED REVETMENT**

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**SUMMARY OF PROJECT QUANTITIES AT TRANSITIONAL SHORELINE**

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**NOTES:**
1. QUANTITIES ARE ESTIMATES BASED ON CONDITIONS AT TIME OF SURVEY.
2. QUANTITIES AND CONDITIONS ARE EXPECTED TO VARY AT TIME OF CONSTRUCTION.
TYPICAL PROFILE OF GEOTUBE AT TRANSITIONAL SHORELINE
J EKYLL ISLAND
PHASE 2 SHORELINE
REHABILITATION PROJECT

SECTION F

BORROW AREA SAND ANALYSIS
### Soil Description

Light Brownish Gray to Pale Brown, Poorly Graded SAND, Trace Shell Fragments

### Atterberg Limits

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<th>Atterberg Limit</th>
<th>PL</th>
<th>LL</th>
<th>PI</th>
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### Coefficients

- $D_{90} = 1.0061$
- $D_{50} = 0.4268$
- $D_{10} = 0.2252$
- $C_u = 2.21$
- $C_p = 0.93$

### Classification

- USCS: SP
- AASHTO: 

### Remarks

Visual Estimate of Shell Content < 5%
F.M.=2.12

---

**Location:** WPLA 11  
**Sample Number:** S-1  
**Date:** 7/25/18

---

**Client:** Applied Technology & Management  
**Project:** Jeckyll Island Revetment Rehabilitation - Jones Oyster Bed  
**Project No:** 26966  
**Figure**
**Soil Description**

Light Brownish Gray to Pale Brown, Poorly Graded SAND, trace Shell Fragments

**Atterberg Limits**

\[ \text{PL} = \frac{D_{90}}{D_{10}} \]

\[ \text{LL} = \frac{D_{60}}{D_{10}} \]

\[ \text{PI} = 2.5 \times (\text{LL} - \text{PL}) \]

**Coefficients**

- \( D_{90} = 1.1279 \)
- \( D_{85} = 0.8930 \)
- \( D_{60} = 0.4565 \)
- \( D_{50} = 0.3852 \)
- \( D_{30} = 0.2827 \)
- \( D_{15} = 0.2106 \)
- \( C_U = 2.51 \)
- \( C_D = 0.96 \)

**Classification**

USCS = SP

AASHTO =

**Remarks**

Visual Estimate of Shell Content < 5%

F.M. = 2.00

---

**Location:** WPLA 16  
**Sample Number:** S-2  
**Date:** 7/25/18

---

**Client:** Applied Technology & Management  
**Project:** Jekyll Island Revetment Rehabilitation - Jones Oyster Bed  
**Project No:** 26966  
**Figure**
**Soil Description**

Light Brownish Gray to Pale Brown, Poorly Graded SAND, trace Shell Fragments

**Atterberg Limits**

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**Classification**

USCS = SP

**Remarks**

Visual Estimate of Shell Content < 5%

F.M. = 2.21

---

**Location:** WPLA 17

**Sample Number:** S-3

---

**Client:** Applied Technology & Management

**Project:** Jeckyll Island Revetment Rehabilitation - Jones Oyster Bed

**Project No:** 26966

---

**Tested By:** EG

**Checked By:** KEL
### Soil Descriptions and Munsell Color

**Date:** 7/25/2018  
**Project Name:** Jeckyll Island Revetment Rehabilitation - Jones Oyster Bed  
**Project Number:** 26966

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<td>S-3</td>
<td>Light Brownish Gray to Pale Brown, Poorly Graded SAND</td>
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