

SPECIFICATIONS
FOR
JAMAICA BEACH HURRICANE IKE REPAIR

TEXAS GENERAL LAND OFFICE
COASTAL EROSION & PROTECTION RESPONSE ACT (CEPRA)
PROJECT 1482

CITY OF JAMAICA BEACH, TEXAS



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Division / Section	Title
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CONTRACTOR'S PROPOSAL FORM

Proposing Firm's Name: _____

Address: _____

City, State, Zip: _____

Project Number: 1482

Project Title: Jamaica Beach Hurricane Ike Repair

Owner: Texas General Land Office

Project Location: Jamaica Beach, Texas, 77554

Having carefully examined the RFP, solicitation documents, drawings and specifications for the referenced project, as prepared by Lockwood, Andrews and Newnam, Inc., as well as the premises and conditions affecting the work, we hereby propose to furnish all labor, materials, and equipment necessary to complete the work for the following amounts and times.

I. BASE PRICE

_____ Dollars \$ _____
(Insert amount in Words and Numbers)

II. UNIT PRICES

Respondents shall submit unit pricing on the Unit Pricing form, or a similar format that includes all listed items and quantities. The Unit Pricing shall be attached immediately following this form.

III. CONTRACT TIME

The Respondent, by the signature of their authorized representative below, further agrees that, if awarded the contract, the work will be substantially complete in the calendar day time indicated herein following the date of a Notice to Proceed.

Base Time _____ calendar days

Notes:

- 1) Respondent will be required to provide material, labor and applicable sales tax breakdown on all prices prior to award.

IV. ADDENDA:

Respondent acknowledges receipt of the following Addenda:

Number:	Dated:	Date Received:
_____	_____	_____
_____	_____	_____
_____	_____	_____

RESPECTFULLY SUBMITTED:

Authorized Signature: _____

Printed Name and Title: _____

Telephone: _____

Respondent's Corporate Charter No.: _____

If a Corporation, attach a corporation resolution or other official corporate documentation, which states that person signing this proposal is an authorized person to sign for and legally bind the corporation.

Unit Pricing Form

Item	Description	Unit of Measure	Approx. Quantities	Unit Price	Extended Price
A1	Mobilization and Demobilization	LS	1	\$	\$
A2	Allowance No. 1 – General Conditions and Bonds	AL	1	\$	\$
A3	Construction Surveys (Progress Surveys of Beach Profile)	EA	5	\$	\$
A4	Beach Fill	CY	61,000	\$	\$
A5	Site Restoration & Protection	LS	1	\$	\$

Notes:

- 1) Unit Prices are for installed items, and includes all costs of materials, equipment, labor, profit, overhead and subsidiary costs.
- 2) The price for Mobilization/Demobilization shall be inclusive for the entire project (i.e., for the base bid and any additive/alternate bid(s) that the Contractor elect to submit).

PERFORMANCE BOND

STATE OF TEXAS
COUNTY OF _____

LET IT BE KNOWN BY THIS INSTRUMENT:

That we, _____ as principal
and we _____ a corporation
duly authorized to do business in this State, as Surety(s), are this date held and firmly
bound unto the State of Texas in the amount of _____

_____ Dollars \$ _____
for payment of which indemnity the said Principal and Surety, by this declaration, do firmly bind
themselves, their heirs, executors, administrators, successors and assigns, jointly and individually.

Since a Contract, which by reference is made a part hereof, exists between Principal and the State
of Texas, acting by and through the Texas General Land Office/Veterans Land Board, and dated
_____ for the _____

The conditions of this obligation are, therefore, such that it shall remain in full force and effect unless
and until the Principal shall faithfully perform the Contract in accordance with the Contract
Documents.

In the event of Principal's failure, as defined by the Contract Documents, to faithfully perform the
Contract, Surety(s) will within fifteen (15) days of determination of default, assume full responsibility
for completion of said Contract and become entitled to payment of the balance of the Contract
amount.

The liabilities, rights, limitations, and remedies concerning this Bond shall be determined in
accordance with the provisions of Chapter 2253 of the Texas Government Code, as amended,
pursuant to which Bond is executed.

IN WITNESS TO THIS DECLARATION, the said Principal and Surety(s) have signed and sealed this
instrument

this _____ day of _____

PRINCIPAL

SURETY

By _____

By _____

Bond Identification No. _____

Address of Attorney-In-Fact

Telephone No. of Attorney-In-Fact

PAYMENT BOND

STATE OF TEXAS
COUNTY OF _____

LET IT BE KNOWN BY THIS INSTRUMENT:

That we, _____ as principal

and we _____ a corporation
duly authorized to do business in this State, as Surety(s), are this date held and firmly
bound unto the State of Texas in the amount of _____

_____ Dollars \$ _____

for payment of which indemnity the said Principal and Surety, by this declaration, do firmly bind themselves, their heirs, executors, administrators, successors and assigns, jointly and individually.

Since a Contract, which by reference is made a part hereof, exists between Principal and the State of Texas, acting by and through the Texas General Land Office/Veterans Land Board, and dated _____ for the _____

The conditions of this obligation are, therefore, such that it shall remain in full force and effect unless and until the Principal shall faithfully perform the Contract in accordance with the Contract Documents.

The liabilities, rights, limitations, and remedies concerning this Bond shall be determined in accordance with the provisions of Chapter 2253 of the Texas Government Code, as amended, pursuant to which Bond is executed.

IN WITNESS TO THIS DECLARATION, the said Principal and Surety(s) have signed and sealed this instrument

this _____ day of _____

PRINCIPAL

SURETY

By _____

By _____

Bond Identification No. _____

Address of Attorney-In-Fact

Telephone No. of Attorney-In-Fact



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A :	
	INSURER B :	
	INSURER C :	
INSURER D :		
INSURER E :		
INSURER F :		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY					EACH OCCURRENCE \$
	COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	CLAIMS-MADE <input type="checkbox"/> OCCUR <input type="checkbox"/>					MED EXP (Any one person) \$
						PERSONAL & ADV INJURY \$
						GENERAL AGGREGATE \$
	GEN'L AGGREGATE LIMIT APPLIES PER:					PRODUCTS - COMP/OP AGG \$
	POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/>					\$
	AUTOMOBILE LIABILITY					COMBINED SINGLE LIMIT (Ea accident) \$
	ANY AUTO					BODILY INJURY (Per person) \$
	ALL OWNED AUTOS					BODILY INJURY (Per accident) \$
	SCHEDULED AUTOS					PROPERTY DAMAGE (Per accident) \$
	HIRED AUTOS					\$
	NON-OWNED AUTOS					
	UMBRELLA LIAB					EACH OCCURRENCE \$
	OCCUR <input type="checkbox"/>					AGGREGATE \$
	EXCESS LIAB					\$
	CLAIMS-MADE <input type="checkbox"/>					
	DED <input type="checkbox"/>					
	RETENTION \$ <input type="checkbox"/>					
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					WC STATUTORY LIMITS <input type="checkbox"/> OTHER <input type="checkbox"/>
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? <input type="checkbox"/>					E.L. EACH ACCIDENT \$
	(Mandatory in NH)					E.L. DISEASE - EA EMPLOYEE \$
	If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Uniform General Conditions for Construction Contracts

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Article 1. Definitions

Unless the context clearly requires another meaning, the following terms have the meaning assigned herein.

- 1.1 *Addendum/Addenda* means formally issued written or graphic modifications and/or interpretations of the Construction Documents that may add to, delete from, clarify or correct the description and/or scope of the Work. Addenda are issued during the bidding phase of the project.
- 1.2 *Application for Payment* means Contractor's monthly partial invoice for payment that includes any portion of the Work that has been completed for which an invoice has not been submitted and performed in accordance with the requirements of the Contract Documents. The Application for Payment accurately reflects the progress of the Work, is itemized based on the Schedule of Values, bears the notarized signature of Contractor, and shall not include subcontracted items for which Contractor does not intend to pay.
- 1.3 *Application for Final Payment* means Contractor's final invoice for payment that includes any portion of the Work that has been completed for which an invoice has not been submitted, amounts owing to adjustments to the final Contract Sum resulting from approved change orders, and release of remaining Contractor's retainage.
- 1.4 *Architect/Engineer (A/E)* means a person registered as an architect pursuant to Tex. Occ. Code Ann., Ch. 1051, as a landscape architect pursuant to Tex. Occ. Code Ann., Ch. 1052, a person licensed as a professional engineer pursuant Tex. Occ. Code Ann., Ch. 1001, and/or a firm employed by Owner or Design-Build Contractor to provide professional architectural or engineering services and to exercise overall responsibility for the design of a Project or a significant portion thereof, and to perform the contract administration responsibilities set forth in the Contract.
- 1.5 *Authority Having Jurisdiction* means a federal, state, local, or other regional department, or an individual such as a fire marshal, building official, electrical inspector, utility provider or other individual having statutory authority.
- 1.6 *Baseline Schedule* means the initial time schedule prepared by Contractor for Owner's information and acceptance that conveys Contractor's and Subcontractors' activities (including coordination and review activities required in the Contract Documents to be performed by A/E and ODR), durations, and sequence of work related to the entire Project to the extent required by the Contract Documents. The schedule clearly demonstrates the critical path of activities, durations and necessary predecessor conditions that drive the end date of the schedule. The Baseline Schedule shall not exceed the time limit current under the Contract Documents.
- 1.7 *Certificate of Final Completion* means the certificate issued by A/E that documents, to the best of A/E's knowledge and understanding, Contractor's completion of all

- Contractor's Punchlist items and pre-final Punchlist items, final cleanup and Contractor's provision of Record Documents, operations and maintenance manuals, and all other closeout documents required by the Contract Documents.
- 1.8 *Certificate of Substantial Completion* means the certificate executed by the A/E, ODR and Contractor that documents to the best of A/E's and ODR's knowledge and understanding, Contractor's sufficient completion of the work in accordance with the Contract, so as to be operational and fit for the use intended.
- 1.9 *Change Order* means a written modification of the Contract between Owner and Contractor, signed by Owner, Contractor, and A/E.
- 1.10 *Close-out Documents* mean the product brochures, submittals, product/equipment maintenance and operations instructions, manuals, and other documents/warranties, record documents, affidavit of payment, release of lien and claim, and as may be further defined, identified, and required by the Contract Documents.
- 1.11 *Contract* means the entire agreement between Owner and Contractor, including all of the Contract Documents.
- 1.12 *Contract Date* is the date when the agreement between Owner and Contractor becomes effective.
- 1.13 *Contract Documents* mean those documents identified as a component of the agreement (Contract) between Owner and Contractor. These may include, but are not limited to, Drawings; Specifications; General, Supplementary General, and Special Conditions; and all pre-bid and/or pre-proposal addenda.
- 1.14 *Contract Sum* means the total compensation payable to Contractor for completion of the Work in accordance with the terms of the Contract.
- 1.15 *Contract Time* means the period between the start date identified in the Notice to Proceed with construction and the Substantial Completion date identified in the Notice to Proceed or as subsequently amended by a Change Order.
- 1.16 *Contractor* means the individual, corporation, limited liability company, partnership, firm, or other entity contracted to perform the Work, regardless of the type of construction contract used, so that the term as used herein includes a Construction Manager-at-Risk or a Design-Build firm as well as a general or prime Contractor. The Contract Documents refer to Contractor as if singular in number.
- 1.17 *Construction Documents* mean the Drawings, Specifications, and other documents issued to build the Project. Construction Documents become part of the Contract Documents when listed in the Contract or any Change Order.
- 1.18 *Construction Manager-at-Risk*, in accordance with Tex. Gov't Code, Ch. 2166, means a sole proprietorship, partnership, corporation, or other legal entity that assumes the risk for construction, rehabilitation, alteration, or repair of a facility at the

- contracted price as a general contractor and provides consultation to Owner regarding construction during and after the design of the facility.
- 1.19 *Date of Commencement* means the date designated in the Notice to Proceed for Contractor to commence the Work.
- 1.20 *Day* means a calendar day unless otherwise specifically stipulated.
- 1.21 *Design-Build* means a project delivery method in which the detailed design and subsequent construction is provided through a single contract with a Design-Build firm; a team, partnership, or legal entity that includes design professionals and a builder. The Design-Build Project delivery shall be implemented in accordance with Tex. Gov't Code § 2166.2531.
- 1.22 *Drawings* mean that product of A/E which graphically depicts the Work.
- 1.23 *Final Completion* means the date determined and certified by A/E and Owner on which the Work is fully and satisfactorily complete in accordance with the Contract.
- 1.24 *Final Payment* means the last and final monetary compensation made to Contractor for any portion of the Work that has been completed and accepted for which payment has not been made, amounts owing to adjustments to the final Contract Sum resulting from approved change orders, and release of Contractor's retainage.
- 1.25 *Historically Underutilized Business (HUB)* pursuant to Tex. Gov't Code, Ch. 2161, means a business that is at least 51% owned by an Asian Pacific American, a Black American, a Hispanic American, a Native American and/or an American Woman; is an entity with its principal place of business in Texas; and has an owner residing in Texas with proportionate interest that actively participates in the control, operations, and management of the entity's affairs.
- 1.26 *Notice to Proceed* means written document informing Contractor of the dates beginning Work and the dates anticipated for Substantial Completion.
- 1.27 *Open Item List* means a list of work activities, Punchlist items, changes or other issues that are not expected by Owner and Contractor to be complete prior to Substantial Completion.
- 1.28 *Owner* means the State of Texas, and any agency of the State of Texas, acting through the responsible entity of the State of Texas identified in the Contract as Owner.
- 1.29 *Owner's Designated Representative (ODR)* means the individual assigned by Owner to act on its behalf and to undertake certain activities as specifically outlined in the Contract. ODR is the only party authorized to direct changes to the scope, cost, or time of the Contract.

- 1.30 *Project* means all activities necessary for realization of the Work. This includes design, contract award(s), execution of the Work itself, and fulfillment of all Contract and warranty obligations.
- 1.31 *Progress Assessment Report (PAR)* means the monthly compliance report to Owner verifying compliance with the HUB subcontracting plan (HSP).
- 1.32 *Proposed Change Order (PCO)* means a document that informs Contractor of a proposed change in the Work and appropriately describes or otherwise documents such change including Contractor's response of pricing for the proposed change.
- 1.33 *Punchlist* means a list of items of Work to be completed or corrected by Contractor after Substantial Completion. Punchlists indicate items to be finished, remaining Work to be performed, or Work that does not meet quality or quantity requirements as required in the Contract Documents.
- 1.34 *Record Documents* mean the drawing set, Specifications, and other materials maintained by Contractor that documents all addenda, Architect's Supplemental Instructions, Change Orders and postings and markings that record the as-constructed conditions of the Work and all changes made during construction.
- 1.35 *Request for Information (RFI)* means a written request by Contractor directed to A/E or ODR for a clarification of the information provided in the Contract Documents or for direction concerning information necessary to perform the Work that may be omitted from the Contract Documents.
- 1.36 *Samples* mean representative physical examples of materials, equipment, or workmanship used to confirm compliance with requirements and/or to establish standards for use in execution of the Work.
- 1.37 *Schedule of Values* means the detailed breakdown of the cost of the materials, labor, and equipment necessary to accomplish the Work as described in the Contract Documents, submitted by Contractor for approval by Owner and A/E.
- 1.38 *Shop Drawings* mean the drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data prepared by Contractor or its agents which detail a portion of the Work.
- 1.39 *Site* means the geographical area of the location of the Work.
- 1.40 *Special Conditions* mean the documents containing terms and conditions which may be unique to the Project. Special Conditions are a part of the Contract Documents and have precedence over the Uniform General Conditions and Supplementary General Conditions.
- 1.41 *Specifications* mean the written product of A/E that establishes the quality and/or performance of products utilized in the Work and processes to be used, including testing and verification for producing the Work.

- 1.42 *Subcontractor* means a business entity that enters into an agreement with Contractor to perform part of the Work or to provide services, materials, or equipment for use in the Work.
- 1.43 *Submittal Register* means a list provided by Contractor of all items to be furnished for review and approval by A/E and Owner and as identified in the Contract Documents including anticipated sequence and submittal dates.
- 1.44 *Substantial Completion* means the date determined and certified by Contractor, A/E, and Owner when the Work, or a designated portion thereof, is sufficiently complete, in accordance with the Contract, so as to be operational and fit for the use intended.
- 1.45 *Supplementary General Conditions* mean procedures and requirements that modify the Uniform General Conditions. Supplementary General Conditions, when used, have precedence over the Uniform General Conditions.
- 1.46 *Unit Price Work* means the Work, or a portion of the Work, paid for based on incremental units of measurement.
- 1.47 *Unilateral Change Order (ULCO)* means a Change Order issued by Owner without the complete agreement of Contractor, as to cost and/or time.
- 1.48 *Work* means the administration, procurement, materials, equipment, construction and all services necessary for Contractor, and/or its agents, to fulfill Contractor's obligations under the Contract.
- 1.49 *Work Progress Schedule* means the continually updated time schedule prepared and monitored by Contractor that accurately indicates all necessary appropriate revisions as required by the conditions of the Work and the Project while maintaining a concise comparison to the Baseline Schedule.

Article 2. Wage Rates and Other Laws Governing Construction

- 2.1 Environmental Regulations. Contractor shall conduct activities in compliance with applicable laws and regulations and other requirements of the Contract relating to the environment and its protection at all times. Unless otherwise specifically determined, Owner is responsible for obtaining and maintaining permits related to stormwater run-off. Contractor shall conduct operations consistent with stormwater run-off permit conditions. Contractor is responsible for all items it brings to the Site, including hazardous materials, and all such items brought to the Site by its Subcontractors and suppliers, or by other entities subject to direction of Contractor. Contractor shall not incorporate hazardous materials into the Work without prior approval of Owner, and shall provide an affidavit attesting to such in association with request for Substantial Completion inspection.
- 2.2 Wage Rates. Contractor shall not pay less than the wage scale of the various classes of labor as shown on the prevailing wage schedule provided by Owner in the bid or proposal specifications. The specified wage rates are minimum rates only. Owner is

not bound to pay any claims for additional compensation made by any Contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Contract. The prevailing wage schedule is not a representation that qualified labor adequate to perform the Work is available locally at the prevailing wage rates.

2.2.1 Notification to Workers. Contractor shall post the prevailing wage schedule in a place conspicuous to all workers on the Project Site When requested by Owner, Contractor shall furnish evidence of compliance with the Texas Prevailing Wage Law and the addresses of all workers.

2.2.1.1 Pursuant to Tex. Gov't Code § 2258.024, Contractor shall keep, on site, true and accurate records showing the name and occupation of each worker employed by the Contractor or subcontractors and the actual per diem wages paid to each worker. The record shall be open to inspection by the ODR and their agents at all reasonable hours for the duration of the contract.

2.2.1.2 With each application for progress payment, Contractor shall make available upon request certified payroll records, including from subcontractors of any tier level, on Form WH-347 as promulgated by the U.S. Department of Labor, as may be revised from time to time and in unlocked and unprotected Excel format, along with copies of any and all Contract Documents between Contractor and any Subcontractors. Pursuant to Tex. Penal Code §§ 37.02 and 37.10, Employees of Contractor and subcontractors, including all tier levels, shall be subject to prosecution for submitting certified payroll records that contain materially false information.

2.2.1.3 The prevailing wage schedule is determined by Owner in compliance with Tex. Gov't Code, Ch. 2258. Should Contractor at any time become aware that a particular skill or trade not reflected on Owner's prevailing wage schedule will be or is being employed in the Work, whether by Contractor or by Subcontractor, Contractor shall promptly inform ODR of the proposed wage to be paid for the skill along with a justification for same and ODR shall promptly concur with or reject the proposed wage and classification.

2.2.1.4 Contractor is responsible for determining the most appropriate wage for a particular skill in relation to similar skills or trades identified on the prevailing wage schedule. In no case, shall any worker be paid less than the wage indicated for laborers.

2.2.1.5 Pursuant to Tex. Labor Code § 214.008, Misclassification of Workers; Penalty. The Owner requires Contractor and all subcontractors properly classify individuals as Employees or Independent Contractors.

- 2.2.2 Penalty for Violation. Contractor, and any Subcontractor, will pay to the State a penalty of sixty dollars (\$60) for each worker employed for each day, or portion thereof, that the worker is paid less than the wage rates stipulated in the prevailing wage schedule
- 2.2.3 Complaints of Violations.
- 2.2.3.1 Owner's Determination of Good Cause. Upon receipt of information concerning a violation, Owner will conduct an investigation in accordance with Tex. Gov't Code, Ch. 2258 and make an initial determination as to whether good cause exists that a violation occurred. Upon making a good cause finding, Owner will retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the prevailing wage schedule and any supplements thereto, together with the applicable penalties in accordance with Tex. Gov't Code § 2258.023, such amounts being subtracted from successive progress payments pending a final decision on the violation.
- 2.2.3.2 No Extension of Time. If Owner's determination proves valid that good cause existed to believe a violation had occurred, Contractor is not entitled to an extension of time for any delay arising directly or indirectly from the arbitration procedures.
- 2.2.3.3 Cooperation with Owner's Investigation. Contractor shall cooperate with Owner during any investigations hereunder. Such cooperation shall include, but not necessarily be limited to, timely providing the information and/or documentation requested by Owner, which may include certified payroll records on Form WH-347 as promulgated by the U.S. Department of Labor, as may be revised from time to time and in unlocked and unprotected Excel format; and copies of any and all Contract Documents between Contractor and any Subcontractors.
- 2.2.3.4 Notification to Owner. In the event Contractor or Subcontractor elect to appeal an initial determination made pursuant to Paragraph 2.2.3.1, the Contractor and/or Subcontractor, as applicable, shall deliver notice thereof to Owner.
- 2.3 Venue for Suits. The venue for any suit arising from the Contract will be in a court of competent jurisdiction in Travis County, Texas, or as may otherwise be designated in the Supplementary General Conditions.
- 2.4 Licensing of Trades. Contractor shall comply with all applicable provisions of State law related to license requirements for skilled tradesmen, contractors, suppliers and or laborers, as necessary to accomplish the Work. In the event Contractor, or one of its Subcontractors, loses its license during the term of performance of the Contract, Contractor shall promptly hire or contract with a licensed provider of the service at no additional cost to Owner.

- 2.5 Royalties, Patents, and Copyrights. Contractor shall pay all royalties and license fees, defend suits or claims for infringement of copyrights and patent rights, and shall hold Owner harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications or other documents prepared by Owner or A/E. However, if Contractor has reason to believe that the required design, process, or product is an infringement of a copyright or a patent, Contractor shall be responsible for such loss unless such information is promptly furnished to A/E.
- 2.6 State Sales and Use Taxes. Owner qualifies for exemption from certain State and local sales and use taxes pursuant to the provisions of Tex. Tax Code, Ch. 151. Upon request from Contractor, Owner shall furnish evidence of tax exempt status. Contractor may claim exemption from payment of certain applicable State taxes by complying with such procedures as prescribed by the State Comptroller of Public Accounts. Owner acknowledges not all items qualify for exemption. Owner is not obligated to reimburse Contractor for taxes paid on items that qualify for tax exemption.

Article 3. General Responsibilities of Owner and Contractor

- 3.1 Owner's General Responsibilities. Owner is the entity identified as such in the Contract and referred to throughout the Contract Documents as if singular in number.
- 3.1.1 Preconstruction Conference. Prior to, or concurrent with, the issuance of Notice to Proceed with construction, a conference will be convened for attendance by Owner, Contractor, A/E and appropriate Subcontractors. The purpose of the conference is to establish a working understanding among the parties as to the Work, the operational conditions at the Project Site, and general administration of the Project. Topics include communications, schedules, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, maintaining required records and all other matters of importance to the administration of the Project and effective communications between the Project team members.
- 3.1.2 Owner's Designated Representative. Prior to the start of construction, Owner will identify Owner's Designated Representative (ODR), who has the express authority to act and bind Owner to the extent and for the purposes described in the various Articles of the Contract, including responsibilities for general administration of the Contract.
- 3.1.2.1 Unless otherwise specifically defined elsewhere in the Contract Documents, ODR is the single point of contact between Owner and Contractor. Notice to ODR, unless otherwise noted, constitutes notice to Owner under the Contract.

- 3.1.2.2 All directives on behalf of Owner will be conveyed to Contractor and A/E by ODR in writing.
 - 3.1.2.3 Owner will furnish or cause to be furnished, free of charge, the number of complete sets of the Drawings, Specifications, and addenda as provided in the Supplementary General Conditions or Special Conditions.
 - 3.1.2.4 The ODR will establish the protocol for planning, scheduling and documenting progress meetings with provisions for absence of various project team members that have a key role in these duties.
- 3.1.3 Owner Supplied Materials and Information.
- 3.1.3.1 Owner will furnish to Contractor those surveys describing the physical characteristics, legal description, limitations of the Site, Site utility locations, and other information used in the preparation of the Contract Documents.
 - 3.1.3.2 Owner will provide information, equipment, or services under Owner's control to Contractor with reasonable promptness.
- 3.1.4 Availability of Lands. Owner will furnish, as indicated in the Contract, all required rights to use the lands upon which the Work occurs. This includes rights-of-way and easements for access and such other lands that are designated for use by Contractor. Contractor shall comply with all Owner identified encumbrances or restrictions specifically related to use of lands so furnished. Owner will obtain and pay for easements for permanent structures or permanent changes in existing facilities,
- 3.1.5 Limitation on Owner's Duties.
- 3.1.5.1 Owner will not supervise, direct, control or have authority over or be responsible for Contractor's means, methods, technologies, sequences or procedures of construction or the safety precautions and programs incident thereto. Owner is not responsible for any failure of Contractor to comply with laws and regulations applicable to the Work. Owner is not responsible for the failure of Contractor to perform or furnish the Work in accordance with the Contract Documents. Except as provided in Section 2.5, Owner is not responsible for the acts or omissions of Contractor, or any of its Subcontractors, suppliers or of any other person or organization performing or furnishing any of the Work on behalf of Contractor.
 - 3.1.5.2 Owner will not take any action in contravention of a design decision made by A/E in preparation of the Contract Documents, when such actions are in conflict with statutes under which A/E is licensed for the protection of the public health and safety.

3.2 Role of Architect/Engineer. Unless specified otherwise in the Contract between Owner and Contractor, A/E shall provide general administration services for Owner during the construction phase of the project. Written correspondence, requests for information, and Shop Drawings/submittals shall be directed to A/E for action. A/E has the authority to act on behalf of Owner to the extent provided in the Contract Documents, unless otherwise modified by written instrument, which will be furnished to Contractor by ODR, upon request.

3.2.1 Site Visits.

3.2.1.1 A/E will make visits to the Site at intervals as provided in the A/E's Contract with Owner, to observe the progress and the quality of the various aspects of Contractor's executed Work and report findings to Owner.

3.2.1.2 A/E has the authority to interpret Contract Documents and inspect the Work for compliance and conformance with the Contract. Except as referenced in Paragraph 3.1.5.2, Owner retains the sole authority to accept or reject Work and issue direction for correction, removal, or replacement of Work.

3.2.2 Clarifications and Interpretations. It may be determined that clarifications or interpretations of the Contract Documents are necessary. Upon direction by ODR, such clarifications or interpretations will be provided by A/E consistent with the intent of the Contract Documents. A/E will issue these clarifications with reasonable promptness to Contractor as A/E's supplemental instruction ("ASI") or similar instrument. If Contractor believes that such clarification or interpretation justifies an adjustment in the Contract Sum or the Contract Time, Contractor shall so notify Owner in accordance with the provisions of Article 11.

3.2.3 Limitations on Architect/Engineer Authority. A/E is not responsible for:

3.2.3.1 Contractor's means, methods, techniques, sequences, procedures, safety, or programs incident to the Project, nor will A/E supervise, direct, control or have authority over the same;

3.2.3.2 The failure of Contractor to comply with laws and regulations applicable to the furnishing or performing the Work;

3.2.3.3 Contractor's failure to perform or furnish the Work in accordance with the Contract Documents; or

3.2.3.4 Acts or omissions of Contractor, or of any other person or organization performing or furnishing any of the Work.

3.3 Contractor's General Responsibilities. Contractor is solely responsible for implementing the Work in full compliance with all applicable laws and the Contract Documents and shall supervise and direct the Work using the best skill and attention

to assure that each element of the Work conforms to the Contract requirements. Contractor is solely responsible for all construction means, methods, techniques, safety, sequences, coordination, procedures and protection of the installed work as part of the contract until substantial completion of the project. Contractor remains responsible for the care and protection of materials and Work in the areas where punch list items are completed until Final Completion.

- 3.3.1 Project Administration. Contractor shall provide Project administration for all Subcontractors, vendors, suppliers, and others involved in implementing the Work and shall coordinate administration efforts with those of A/E and ODR in accordance with these general conditions and other provisions of the Contract, and as outlined in the preconstruction conference. Contractor's Project Administration includes periodic daily reporting on weather, work progress, labor, materials, equipment, obstructions to prosecution of the work, accidents and injuries in accordance with the Contract and transmitted no less frequently than on a weekly basis.
- 3.3.2 Contractor's Management Personnel. Contractor shall employ a competent person or persons who will be present at the Project Site during the progress of the Work to supervise or oversee the work. The competent persons are subject to the approval of ODR. Contractor shall not change approved staff during the course of the project without the written approval of ODR unless the staff member leaves the employment of Contractor. Contractor shall provide additional quality control, safety and other staff as stated in the Supplementary General Conditions.
- 3.3.3 Labor. Contractor shall provide competent, suitably qualified personnel to survey, lay-out, and construct the Work as required by the Contract Documents and maintain good discipline and order at the Site at all times.
- 3.3.4 Services, Materials, and Equipment. Unless otherwise specified, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities, incidentals, and services necessary for the construction, performance, testing, start-up, inspection and completion of the Work.
- 3.3.5 Contractor General Responsibility. For Owner furnished equipment or material that will be in the care, custody, and control of Contractor, Contractor is responsible for damage or loss. Owner shall deliver to Contractor a complete list and respective values of such materials or equipment and make an equitable adjustment to the contract amount for any increase in cost of Builder's Risk insurance.
- 3.3.6 Non-Compliant Work. Should A/E and/or ODR identify Work as non-compliant with the Contract Documents, A/E and/or ODR shall communicate the finding to Contractor, and Contractor shall correct such Work at no additional cost to the Owner. The approval of Work by either A/E or

ODR does not relieve Contractor from the obligation to comply with all requirements of the Contract Documents.

3.3.7 Subcontractors. Contractor shall not employ any Subcontractor, supplier or other person or organization, whether initially or as a substitute, against whom Owner shall have reasonable objection. Owner will communicate such objections in writing within ten (10) days of receipt of Contractor's intent to use such Subcontractor, supplier, or other person or organization. Contractor is not required to employ any Subcontractor, supplier or other person or organization to furnish any of the work to whom Contractor has reasonable objection. Contractor shall not substitute Subcontractors without the acceptance of Owner. Pursuant to Tex. Gov't Code § 2269.256(b), if the Contractor reviews, evaluates and recommends that the Owner accept a bid or proposal from a Subcontractor but the Owner requires another bid or proposal to be accepted, Owner shall compensate the Contractor by a change in price, time or guaranteed maximum cost for any additional cost or risk the Contractor will incur because of Owner's requirement to select another bid or proposal rather than the one recommended.

3.3.7.1 All Subcontracts and supply contracts shall be consistent with and bind the Subcontractors and suppliers to the terms and conditions of the Contract Documents including provisions of the Contract between Contractor and Owner.

3.3.7.2 Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor. Require all Subcontractors, suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner only through Contractor. Contractor shall furnish to Owner a copy, at Owner's request, of each first-tier subcontract promptly after its execution. Contractor agrees that Owner has no obligation to review or approve the content of such contracts and that providing Owner such copies in no way relieves Contractor of any of the terms and conditions of the Contract, including, without limitation, any provisions of the Contract which require the Subcontractor to be bound to Contractor in the same manner in which Contractor is bound to Owner.

3.3.8 Continuing the Work. Contractor shall carry on the Work and adhere to the progress schedule during all disputes, disagreements, or alternative resolution processes with Owner. Contractor shall not delay or postpone any Work because of pending unresolved disputes, disagreements or alternative resolution processes, except as Owner and Contractor may agree in writing.

3.3.9 Cleaning. Contractor shall at all times, keep the Site and the Work clean and free from accumulation of waste materials or rubbish caused by the construction activities under the Contract. Contractor shall ensure that the entire Project is thoroughly cleaned prior to requesting Substantial Completion inspection and, again, upon completion of the Project prior to the final inspection.

3.3.10 Acts and Omissions of Contractor, its Subcontractors, and Employees. Contractor shall be responsible for acts and omissions of his employees and all its Subcontractors, their agents and employees. Owner may, in writing, require Contractor to remove from the Project any of Contractor's or its Subcontractor's employees whom ODR finds to be careless, incompetent, unsafe, uncooperative, disruptive, or otherwise objectionable.

3.3.11 Acts or Omissions. Contractor shall indemnify and hold harmless the State of Texas and Customers, AND/OR THEIR OFFICERS, AGENTS, EMPLOYEES, REPRESENTATIVES, CONTRACTORS, ASSIGNEES, AND/OR DESIGNEES FROM ANY AND ALL LIABILITY, ACTIONS, CLAIMS, DEMANDS, OR SUITS, AND ALL RELATED COSTS, ATTORNEY FEES, AND EXPENSES arising out of, or resulting from any acts or omissions of Contractor or its agents, employees, subcontractors, Order Fulfillers, or suppliers of subcontractors in the execution or performance of the Contract and any Purchase Orders issued under the Contract. THE DEFENSE SHALL BE COORDINATED BY CONTRACTOR WITH THE OFFICE OF THE ATTORNEY GENERAL WHEN TEXAS STATE AGENCIES ARE NAMED DEFENDANTS IN ANY LAWSUIT AND CONTRACTOR MAY NOT AGREE TO ANY SETTLEMENT WITHOUT FIRST OBTAINING THE CONCURRENCE FROM THE OFFICE OF THE ATTORNEY GENERAL. CONTRACTOR AND OWNER AGREE TO FURNISH TIMELY WRITTEN NOTICE TO EACH OTHER OF ANY SUCH CLAIM.

3.3.12 Infringements.

3.3.12.1 Contractor shall indemnify and hold harmless the State of Texas and Customers, AND/OR THEIR EMPLOYEES, AGENTS, REPRESENTATIVES, CONTRACTORS, ASSIGNEES, AND/OR DESIGNEES from any and all third party claims involving infringement of United States patents, copyrights, trade and service marks, and any other intellectual or intangible property rights in connection with the PERFORMANCES OR ACTIONS OF CONTRACTOR PURSUANT TO THIS CONTRACT. CONTRACTOR AND THE CUSTOMER AGREE TO FURNISH TIMELY WRITTEN NOTICE TO EACH OTHER OF ANY SUCH CLAIM. CONTRACTOR SHALL BE LIABLE TO PAY ALL COSTS OF DEFENSE INCLUDING ATTORNEYS' FEES. THE DEFENSE SHALL BE COORDINATED BY CONTRACTOR WITH THE OFFICE OF THE ATTORNEY GENERAL WHEN TEXAS STATE AGENCIES ARE NAMED DEFENDANTS IN

ANY LAWSUIT AND CONTRACTOR MAY NOT AGREE TO ANY SETTLEMENT WITHOUT FIRST OBTAINING THE CONCURRENCE FROM THE OFFICE OF THE ATTORNEY GENERAL.

3.3.12.2 Contractor shall have no liability under this section if the alleged infringement is caused in whole or in part by: (i) use of the product or service for a purpose or in a manner for which the product or service was not designed, (ii) any modification made to the product without Contractor's written approval, (iii) any modifications made to the product by Contractor pursuant to Customer's specific instructions, (iv) any intellectual property right owned by or licensed to Customer, or (v) any use of the product or service by Customer that is not in conformity with the terms of any applicable license agreement.

3.3.12.3 If Contractor becomes aware of an actual or potential claim, or Customer provides Contractor with notice of an actual or potential claim, Contractor may (or in the case of an injunction against Customer, shall), at Contractor's sole option and expense; (i) procure for the Customer the right to continue to use the affected portion of the product or service, or (ii) modify or replace the affected portion of the product or service with functionally equivalent or superior product or service so that Customer's use is non-infringing.

3.3.12.4 Taxes/Workers' Compensation/Unemployment Insurance-Including Indemnity.

3.3.12.4.1 CONTRACTOR AGREES AND ACKNOWLEDGES THAT DURING THE EXISTENCE OF THIS CONTRACT, CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR THE LIABILITY AND PAYMENT OF CONTRACTOR'S AND CONTRACTOR'S EMPLOYEES' TAXES OF WHATEVER KIND, ARISING OUT OF THE PERFORMANCES IN THIS CONTRACT. CONTRACTOR AGREES TO COMPLY WITH ALL STATE AND FEDERAL LAWS APPLICABLE TO ANY SUCH PERSONS, INCLUDING LAWS REGARDING WAGES, TAXES, INSURANCE, AND WORKERS' COMPENSATION. THE CUSTOMER AND/OR THE STATE SHALL NOT BE LIABLE TO CONTRACTOR, ITS EMPLOYEES, AGENTS, OR OTHERS FOR THE PAYMENT OF TAXES OR THE PROVISION OF UNEMPLOYMENT INSURANCE AND/OR WORKERS' COMPENSATION OR ANY BENEFIT

AVAILABLE TO A STATE EMPLOYEE OR EMPLOYEE OF ANOTHER GOVERNMENTAL ENTITY CUSTOMER.

3.3.12.4.1 CONTRACTOR AGREES TO INDEMNIFY AND HOLD HARMLESS OWNER, THE STATE OF TEXAS AND/OR THEIR EMPLOYEES, AGENTS, REPRESENTATIVES, CONTRACTORS, AND/OR ASSIGNEES FROM ANY AND ALL LIABILITY, ACTIONS, CLAIMS, DEMANDS, OR SUITS, AND ALL RELATED COSTS, ATTORNEYS' FEES, AND EXPENSES, RELATING TO TAX LIABILITY, UNEMPLOYMENT INSURANCE AND/OR WORKERS' COMPENSATION IN ITS PERFORMANCE UNDER THIS CONTRACT. CONTRACTOR SHALL BE LIABLE TO PAY ALL COSTS OF DEFENSE INCLUDING ATTORNEYS' FEES. THE DEFENSE SHALL BE COORDINATED BY CONTRACTOR WITH THE OFFICE OF THE ATTORNEY GENERAL WHEN TEXAS STATE AGENCIES ARE NAMED DEFENDANTS IN ANY LAWSUIT AND VENDOR MAY NOT AGREE TO ANY SETTLEMENT WITHOUT FIRST OBTAINING THE CONCURRENCE FROM THE OFFICE OF THE ATTORNEY GENERAL. CONTRACTOR AND OWNER AGREE TO FURNISH TIMELY WRITTEN NOTICE TO EACH OTHER OF ANY SUCH CLAIM.

3.3.12.5 The provisions of this indemnification are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity.

3.3.12.6 Contractor shall promptly advise Owner in writing of any claim or demand against Owner or against Contractor which involves Owner and known to Contractor and related to or arising out of Contractor's activities under this Contract.

3.3.13 Ancillary Areas. Operate and maintain operations and associated storage areas at the site of the Work in accordance with the following:

3.3.13.1 Confine all Contractor operations, including storage of materials and employee parking upon the Site of Work, to areas designated by Owner.

- 3.3.13.2 Contractor may erect, at its own expense, temporary buildings that will remain its property. Remove such buildings and associated utility service lines upon completion of the Work, unless Contractor requests and Owner provides written consent that it may abandon such buildings and utilities in place.
- 3.3.13.3 Use only established roadways or construct and use such temporary roadways as may be authorized by Owner. Do not allow load limits of vehicles to exceed the limits prescribed by appropriate regulations or law. Provide protection to road surfaces, curbs, sidewalks, trees, shrubbery, sprinkler systems, drainage structures and other like existing improvements to prevent damage and repair any damage thereto at the expense of Contractor.
- 3.3.13.4 Owner may restrict Contractor's entry to the Site to specifically assigned entrances and routes.
- 3.3.14 Separate Contracts. Owner reserves the right to award other contracts in connection with other portions of the Project under these same or substantially similar contract conditions, including those portions related to insurance and waiver of subrogation. Owner reserves the right to perform operations related to the Project with Owner's own forces.
- 3.3.15 Under a system of separate contracts, the conditions described herein continue to apply except as may be amended by change order.
- 3.3.16 Contractor shall cooperate with other contractors or forces employed on the Project by Owner, including providing access to Site and Project information as requested.
- 3.3.17 Owner shall be reimbursed by Contractor for costs incurred by Owner which are payable to a separate contractor because of delays, improperly timed activities, or defective construction by Contractor. Owner will equitably adjust the Contract by Change Order for costs incurred by Contractor because of delays, improperly timed activities, damage to the Work or defective construction by a separate contractor.

Article 4. Historically Underutilized Business (HUB) Subcontracting Plan

- 4.1 General Description. The purpose of the Historically Underutilized Business (HUB) program is to promote equal business opportunities for economically disadvantaged persons (as defined by Tex. Gov't Code, Ch. 2161) to contract with the State of Texas in accordance with the goals specified in the State of Texas Disparity Study. The HUB program annual procurement utilization goals are defined in 34 T.A.C. § 20.13(b).
 - 4.1.1 State agencies are required by statute to make a good faith effort to assist HUBs in participating in contract awards issued by the State. 34 T.A.C. §

20.13(b) outlines the State's policy to encourage the utilization of HUBs in State contracting opportunities through race, ethnic and gender neutral means.

- 4.1.2 A Contractor who contracts with the State in an amount of \$100,000 or greater is required to make a good faith effort to award subcontracts to HUBs in accordance with 34 T.A.C. § 20.14(a)(2)(A) by submitting a HUB subcontracting plan within twenty-four (24) hours after the bid or response is due and complying with the HUB subcontracting plan after it is accepted by Owner and during the term of the Contract.
- 4.2 Compliance with Approved HUB Subcontracting Plan. Contractor, having been awarded this Contract in part by complying with the HUB program statute and rules, hereby covenants to continue to comply with the HUB program as follows:
- 4.2.1 Prior to adding or substituting a Subcontractor, promptly notify Owner in the event a change is required for any reason to the accepted HUB subcontracting plan.
 - 4.2.2 Conduct the good-faith effort activities required and provide Owner with necessary documentation to justify approval of a change to the approved HUB subcontracting plan.
 - 4.2.3 Cooperate in the execution of a Change Order or such other approval of the change in the HUB subcontracting plans as Contractor and Owner may agree to.
 - 4.2.4 Maintain and make available to Owner upon request business records documenting compliance with the accepted HUB subcontracting plan.
 - 4.2.5 Upon receipt of payment for performance of Work, submit to Owner a compliance report, in the format required by Owner that demonstrates Contractor's performance of the HUB subcontracting plan.
 - 4.2.5.1 Progress Assessment Report (PAR): monthly compliance reports to Owner (contracting agency), verifying their compliance with the HUB subcontracting plan, including the use/expenditures they have made to Subcontractors. (The PAR is available in the Index Forms Library on the Facilities Design & Construction page of the Texas Facilities Commission website.
 - 4.2.6 Promptly and accurately explain and provide supplemental information to Owner to assist in Owner's investigation of Contractor's good-faith effort to fulfill the HUB subcontracting plan and the requirements under 34 T.A.C. § 20.14(a)(1).
- 4.3 Failure to Demonstrate Good-Faith Effort. Upon a determination by Owner that Contractor has failed to demonstrate a good-faith effort to fulfill the HUB subcontracting plan or any Contract covenant detailed above, Owner may, in addition to all other remedies available to it, report the failure to perform to the Comptroller of

Public Accounts, Texas Procurement and Support Services Division, Historically Underutilized Business Program and may bar Contractor from future contracting opportunities with Owner.

Article 5. Bonds and Insurance

5.1 Construction Bonds. Contractor is required to tender to Owner, prior to commencing the Work, performance and payment bonds, as required by Tex. Gov't Code, Ch. 2253. On Construction Manager-at-Risk and Design-Build Projects the Owner shall require a security bond, as described in Subsection 5.1.2 below.

5.1.1 Bond Requirements. Each bond shall be executed by a corporate surety or sureties authorized to do business in the State of Texas and acceptable to Owner, on Owner's form, and in compliance with the relevant provisions of the Texas Insurance Code. If any bond is for more than ten (10) percent of the surety's capital and surplus, Owner may require certification that the company has reinsured the excess portion with one or more reinsurers authorized to do business in the State. A reinsurer may not reinsure for more than ten (10) percent of its capital and surplus. If a surety upon a bond loses its authority to do business in the State, Contractor shall, within thirty (30) days after such loss, furnish a replacement bond at no added cost to Owner.

5.1.1.1 A Performance bond is required if the Contract Sum is in excess of \$100,000. The performance bond is solely for the protection of Owner. The performance bond is to be for the Contract Sum to guarantee the faithful performance of the Work in accordance with the Contract Documents. The form of the bond shall be approved by the Office of the Attorney General of Texas. The performance bond shall be effective through Contractor's warranty period.

5.1.1.2 A Payment bond is required if the Contract price is in excess of \$25,000. The payment bond is to be for the Contract Sum and is payable to Owner solely for the protection and use of payment bond beneficiaries. The form of the bond shall be approved by the Office of the Attorney General of Texas.

5.1.2 Security Bond. The security bond provides protection to Owner if Contractor presents an acceptable guaranteed maximum price ("GMP") to Owner and 1) fails to execute the GMP; or 2) fails to deliver the required payment and performance bonds within the time period stated below.

5.1.3 When Bonds Are Due.

5.1.3.1 Security bonds are due within ten (10) days of signing a Construction Manager-at-Risk or Design-Build Contract.

- 5.1.3.2 Payment and performance bonds are due within ten (10) days of Contractor's receipt of a fully executed GMP on a Construction Manager-at-Risk project or the Contract Sum for a Design-Build project, or within ten (10) days of Contractor's receipt of a fully executed Contract on competitively bid or competitive sealed proposal projects.
- 5.1.4 Power of Attorney. Each bond shall be accompanied by a valid power of attorney (issued by the surety company and attached, signed and sealed with the corporate embossed seal, to the bond) authorizing the attorney-in-fact who signs the bond to commit the company to the terms of the bond, and stating any limit in the amount for which the attorney can issue a single bond.
- 5.1.5 Bond Indemnification. The process of requiring and accepting bonds and making claims there under shall be conducted in compliance with Tex. Gov't Code, Ch. 2253. IF FOR ANY REASON A STATUTORY PAYMENT OR PERFORMANCE BOND IS NOT HONORED BY THE SURETY, CONTRACTOR SHALL FULLY INDEMNIFY AND HOLD OWNER HARMLESS OF AND FROM ANY COSTS, LOSSES, OBLIGATIONS OR LIABILITIES IT INCURS AS A RESULT.
- 5.1.6 Furnishing Bond Information. Owner shall furnish certified copies of the payment bond and the related Contract to any qualified person seeking copies who complies with Tex. Gov't Code § 2253.026.
- 5.1.7 Claims on Payment Bonds. Claims on payment bonds must be sent directly to Contractor and his surety in accordance with Tex. Gov't Code § 2253.041. All payment bond claimants are cautioned that no lien exists on the funds unpaid to Contractor on such Contract, and that reliance on notices sent to Owner may result in loss of their rights against Contractor and/or his surety. Owner is not responsible in any manner to a claimant for collection of unpaid bills, and accepts no such responsibility because of any representation by any agent or employee.
- 5.1.8 Payment Claims when Payment Bond not Required. The rights of Subcontractors regarding payment are governed by Tex. Prop. Code §§ 53.231 – 53.239 when the value of the Contract between Owner and Contractor is less than \$25,000.00. These provisions set out the requirements for filing a valid lien on funds unpaid to Contractor as of the time of filing the claim, actions necessary to release the lien and satisfaction of such claim.
- 5.1.9 Sureties. A surety shall be listed on the US Department of the Treasury's Listing of Approved Sureties maintained by the Bureau of Financial Management Service (FMS), www.fms.treas.gov/c570, stating companies holding Certificates of Authority as acceptable sureties on Federal bonds and acceptable reinsuring companies (FMS Circular 570).

5.2 Insurance Requirements. Contractor shall carry insurance in the types and amounts indicated in this Article for the duration of the Contract. The insurance shall be evidenced by delivery to Owner of certificates of insurance executed by the insurer or its authorized agent stating coverages, limits, expiration dates and compliance with all applicable required provisions. Upon request, Owner, and/or its agents, shall be entitled to receive without expense, copies of the policies and all endorsements. Contractor shall update all expired policies prior to submission for monthly payment. Failure to update policies shall be reason for withholding of payment until renewal is provided to Owner.

5.2.1 Contractor shall provide and maintain all insurance coverage with the minimum amounts described below until the end of the warranty period unless otherwise stated in Supplementary General Conditions or Special Conditions. Failure to maintain insurance coverage, as required, is grounds for suspension of Work for cause pursuant to Article 14.

5.2.2 Contractor shall deliver to Owner true and complete copies of certificates and corresponding policy endorsements prior to the issuance of any Notice to Proceed.

5.2.3 Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

5.2.4 The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.2.5 The insurance coverage and limits established herein shall not be interpreted as any representation or warranty that the insurance coverage and limits necessarily will be adequate to protect Contractor.

5.2.6 Coverage shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A or better by A.M. Best Company or similar rating company or otherwise acceptable to Owner.

5.2.2.1 Insurance Coverage Required.

5.2.2.1.1 Workers' Compensation. Insurance with limits as required by the Texas Workers' Compensation Act, with the policy endorsed to provide a waiver of subrogation in favor of Owner, employer's liability insurance of not less than:

\$1,000,000 each accident;

\$1,000,000 disease each employee; and

\$1,000,000 disease policy limit.

5.2.2.1.2 Commercial General Liability Insurance. Including premises, operations, independent contractor's liability, products and completed operations and contractual liability, covering, but not limited to, the liability assumed under the indemnification provisions of this Contract, fully insuring Contractor's liability for bodily injury (including death) and property damage with a minimum limit of:

\$1,000,000 per occurrence;

\$2,000,000 general aggregate;

\$5,000 Medical Expense each person;

\$1,000,000 Personal Injury and Advertising Liability;

\$2,000,000 products and completed operations aggregate;

\$50,000 Damage to Premises Rented to You; and

Coverage shall be on an "occurrence" basis.

The policy shall include coverage extended to apply to completed operations and explosion, collapse, and underground hazards. The policy shall include endorsement CG2503 Amendment of Aggregate Limits of Insurance (per Project) or its equivalent.

If the Work involves any activities within fifty (50) feet of any railroad, railroad protective insurance as may be required by the affected railroad, written for not less than the limits required by such railroad.

5.2.2.1.3 Asbestos Abatement Liability Insurance, including coverage for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos containing materials. *This requirement applies if the Work or the Project includes asbestos containing materials.

The combined single limit for bodily injury and property damage will be a minimum of \$1,000,000 per occurrence.

*Specific requirement for claims-made form: Required period of coverage will be determined by the following formula: continuous coverage for life of the Contract, plus one (1) year (to provide coverage for the warranty period), and an extended discovery period for a minimum of five (5) years which shall begin at the end of the warranty period.

Employer's liability limits for asbestos abatement will be:

\$500,000 each accident;

\$500,000 disease each employee; and

\$500,000 disease policy limit.

If this Contract is for asbestos abatement only, the Special Form builder's risk or Special Form installation floater (e) is not required.

- 5.2.2.1.4 Comprehensive Automobile Liability Insurance, covering owned, hired, and non-owned vehicles, with a minimum combined single limit for bodily injury (including death) and property damage of \$1,000,000 per accident. No aggregate shall be permitted for this type of coverage.

Such insurance is to include coverage for loading and unloading hazards.

- 5.2.2.1.5 Special Form Builder's Risk Insurance, if applicable (or Special Form installation floater for instances in which the project involves solely the installation of material and/or equipment). Coverage shall be Special Form, including, but not limited to, fire, extended coverage, vandalism and malicious mischief, theft and, if applicable, flood, earth movement and named storm. Builder's risk and installation floater limits shall be equal to 100 percent of the Contract Sum plus, if any, existing property and Owner-furnished equipment specified by Owner. The policy shall be written jointly in the names of Owner and Contractor. Subcontractors shall be named as additional insureds. The policy shall have endorsements as follows:

- 5.2.2.1.5.1 This insurance shall be specific as to coverage and not contributing insurance with any permanent insurance maintained on the property.

- 5.2.2.1.5.2 This insurance shall not contain an occupancy clause suspending or reducing coverage should Owner partially occupy the Site and before the parties have determined Substantial Completion.
 - 5.2.2.1.5.3 Loss, if any, shall be adjusted with and made payable to Owner as trustee for the insureds as their interests may appear. Owner shall be named as loss payee.
 - 5.2.2.1.5.4 For renovation projects or projects that involve portions of Work contained within an existing structure, refer to Supplementary General and Special Conditions for possible additional builder's risk insurance requirements.
 - 5.2.2.1.5.5 For Owner furnished equipment or materials that will be in care, custody or control of Contractor, Contractor will be responsible for damage and loss.
 - 5.2.2.1.5.6 For those properties located within a Tier 1 or 2 windstorm area, named storm coverage must be provided with limits specified by Owner.
 - 5.2.2.1.5.7 For those properties located in flood prone areas, flood insurance coverage must be provided with limits specified by Owner.
 - 5.2.2.1.5.8 Builder's risk insurance policy shall remain in effect until Substantial Completion.
- 5.2.2.1.6 "Umbrella" Liability Insurance. Contractor shall obtain, pay for and maintain umbrella liability insurance during the Contract term, insuring Contractor for an amount of not less than amount specified in the Supplementary General Conditions or Special Conditions that provides coverage at least as broad as and applies in excess and follows form of the primary liability coverages required hereinabove. The policy shall provide "drop down" coverage where underlying primary insurance coverage limits are insufficient or exhausted.

5.2.3 Policies must include the following clauses, as applicable:

- 5.2.3.1 This insurance shall not be canceled, materially changed, or non-renewed except after thirty (30) days written notice has been given to Owner.
 - 5.2.3.2 It is agreed that Contractor's insurance shall be deemed primary with respect to any insurance or self insurance carried by Owner for liability arising out of operations under the Contract with Owner.
 - 5.2.3.3 Owner, its officials, directors, employees, representatives, and volunteers are added as additional insureds as respects operations and activities of, or on behalf of the named insured performed under Contract with Owner. The additional insured status must cover completed operations as well. This is not applicable to workers' compensation policies.
 - 5.2.3.4 A waiver of subrogation in favor of Owner shall be provided in all policies.
- 5.2.4 Without limiting any of the other obligations or liabilities of Contractor, Contractor shall require each Subcontractor performing work under the Contract, at Subcontractor's own expense, to maintain during the term of the Contract, the same stipulated minimum insurance including the required provisions and additional policy conditions as shown above. As an alternative, Contractor may include its Subcontractors as additional insureds on its own coverage as prescribed under these requirements. Contractor's certificate of insurance shall note in such event that Subcontractors are included as additional insureds and that Contractor agrees to provide workers' compensation for Subcontractors and their employees. Contractor shall obtain and monitor the certificates of insurance from each Subcontractor in order to assure compliance with the insurance requirements. Contractor must retain the certificates of insurance for the duration of the Contract plus five (5) years and shall have the responsibility of enforcing these insurance requirements among its Subcontractors. Owner shall be entitled, upon request and without expense, to receive copies of these certificates.
- 5.2.5 Workers' compensation insurance coverage must be provided for all workers at all tier levels and meet the statutory requirements of Tex. Lab. Code § 401.011(44) and specific to construction projects for public entities as required by Tex. Lab. Code § 406.096.

Article 6. Construction Documents, Coordination Documents, and Record Documents

6.1 Drawings and Specifications.

- 6.1.1 Copies Furnished. Contractor will be furnished, free of charge, the number of complete sets of the Drawings, Specifications, and Addenda as provided in the Supplementary General Conditions or Special Conditions. Additional complete sets of Drawings and Specifications, if requested, will be furnished at reproduction cost to the entity requesting such additional sets. Electronic copies of such documents will be provided to Contractor without charge.
- 6.1.2 Ownership of Drawings and Specifications. All Drawings, Specifications and copies thereof furnished by A/E are to remain A/E's property. These documents are not to be used on any other project, and with the exception of the Contract record set and electronic versions needed for warranty operations, are to be returned to the A/E, upon request, following completion of the Work.
- 6.1.3 Interrelation of Documents. The Contract Documents as referenced in the Contract between Owner and Contractor are complimentary, and what is required by one shall be as binding as if required by all.
- 6.1.4 Resolution of Conflicts in Documents. Where conflicts may exist within the Contract Documents, the documents shall govern in the following order: (a) Change Orders, addenda, and written amendments to the Contract; (b) the Contract; (c) Drawings; (d) Specifications (but Specifications shall control over Drawings as to quality of materials and workmanship); and (e) other Contract Documents. Among categories of documents having the same order of precedence, the term or provision that includes the latest date shall control and more specific requirements shall govern over general requirements. Contractor shall notify A/E and ODR for resolution of the issue prior to executing the Work in question.
- 6.1.5 Contractor's Duty to Review Contract Documents. In order to facilitate its responsibilities for completion of the Work in accordance with and as reasonably inferable from the Contract Documents, prior to commencing the Work, Contractor shall examine and compare the Contract Documents, information furnished by Owner, relevant field measurements made by Contractor and any visible or reasonably anticipated conditions at the Site affecting the Work. This duty extends throughout the construction phase prior to commencing each particular work activity and/or system installation.

6.1.6 Discrepancies and Omissions in Drawings and Specifications.

- 6.1.6.1 Promptly report to ODR and to A/E the discovery of any apparent error, omission or inconsistency in the Contract Documents prior to execution of the Work.
- 6.1.6.2 It is recognized that Contractor is not acting in the capacity of a licensed design professional, unless it is performing as a Design-Build firm.
- 6.1.6.3 It is further recognized that Contractor's examination of Contract Documents is to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies or to ascertain compliance with applicable laws, building codes or regulations, unless it is performing as a Design-Build firm or a Construction Manager-at-Risk.
- 6.1.6.4 When performing as a Design-Build firm, Contractor has sole responsibility for discrepancies, errors, and omissions in the Drawings and Specifications.
- 6.1.6.5 When performing as a Construction Manager-at-Risk, Contractor has a shared responsibility with A/E for discovery and resolution of discrepancies, errors, and omissions in the Contract Documents. In such case, Contractor's responsibility pertains to review, coordination, and recommendation of resolution strategies within budget constraints.
- 6.1.6.6 Contractor has no liability for errors, omissions, or inconsistencies unless Contractor knowingly failed to report a recognized problem to Owner or the Work is executed under a Design-Build or Construction Manager-at-Risk Contract as outlined above. Should Contractor fail to perform the examination and reporting obligations of these provisions, Contractor is responsible for avoidable costs and direct and/or consequential damages.

6.2 Requirements for Record Documents. Contractor shall:

- 6.2.1 Maintain at the Site one copy of all Drawings, Specifications, addenda, approved submittals, Contract modifications, and all Project correspondence. Keep current and maintain Drawings and Specifications in good order with postings and markings to record actual conditions of Work and show and reference all changes made during construction. Provide Owner and A/E access to these documents.

- 6.2.2 Maintain the Record Documents including Drawings, Specifications and other materials which reflect the actual field conditions and representations of the Work performed, whether it be directed by addendum, Change Order or otherwise. Make available all records prescribed herein for reference and examination by Owner and its representatives and agents.
- 6.2.3 Update the Record Documents at least monthly prior to submission of periodic partial pay estimates. Failure to maintain current Record Documents constitutes cause for denial of a progress payment otherwise due.
- 6.2.4 Prior to requesting Substantial Completion inspection Contractor shall furnish a copy of its marked-up Record Documents and a preliminary copy of each instructional manual, maintenance and operating manual, parts catalog, wiring diagrams, spare parts, specified written warranties and like publications, or parts for all installed equipment, systems, and like items and as described in the Contract Documents. (Unexecuted samples of the aforementioned documentation may be reviewed by ODR when the absence of substantial completion transactions preclude execution; however, Contractor remains obligated to provide fully executed copies of such materials prior to final payment.)
- 6.2.5 Once determined acceptable by ODR with input from A/E, provide one (1) reproducible copy and one (1) electronic media copy of all Record Documents, unless otherwise required by the Supplementary General Conditions or Special Conditions.
- 6.2.6 Contractor shall be responsible for updating the Record Documents for all Contractor initiated documents and changes to the Contract Documents due to coordination and actual field conditions, including RFIs.
- 6.2.7 A/E shall be responsible for updating the Record Documents for any addenda, Change Orders, A/E supplemental instructions and any other alterations to the Contract Documents generated by A/E or Owner.

Article 7. Construction Safety

- 7.1 General. It is the duty and responsibility of Contractor and all of its Subcontractors to be familiar with, enforce and comply with all requirements of Public Law No. 91-596, 29 U.S.C. § 651 et. seq., the Occupational Safety and Health Act of 1970, (OSHA) and all amendments thereto. Contractor shall prepare a safety plan specific to the Project and submit it to ODR and A/E prior to commencing Work. In addition, Contractor and all of its Subcontractors shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property to protect them from damage, injury or loss and erect and maintain all necessary safeguards for such safety and protection.
- 7.2 Notices. Contractor shall provide notices as follows:

- 7.2.1 Notify owners of adjacent property including those that own or operate utility services and/or underground facilities, and utility owners, when prosecution of the Work may affect them or their facilities, and cooperate with them in the protection, removal, relocation and replacement, and access to their facilities and/or utilities.
- 7.2.2 Coordinate the exchange of material safety data sheets (MSDSs) or other hazard communication information required to be made available to or exchanged between or among employers at the site in connection with laws and regulations. Maintain a complete file of MSDSs for all materials in use on site throughout the construction phase and make such file available to Owner and its agents as requested.
- 7.3 Emergencies. In any emergency affecting the safety of persons or property, Contractor shall act to minimize, mitigate, and prevent threatened damage, injury or loss.
 - 7.3.1 Have authorized agents of Contractor respond immediately upon call at any time of day or night when circumstances warrant the presence of Contractor to protect the Work or adjacent property from damage or to take such action pertaining to the Work as may be necessary to provide for the safety of the public.
 - 7.3.2 Give ODR and A/E prompt notice of all such events.
 - 7.3.3 If Contractor believes that any changes in the Work or variations from Contract Documents have been caused by its emergency response, promptly notify Owner within seventy-two (72) hours of the emergency response event.
 - 7.3.4 Should Contractor fail to respond, Owner is authorized to direct other forces to take action as necessary and Owner may deduct any cost of remedial action from funds otherwise due Contractor.
- 7.4 Injuries. In the event of an incident or accident involving outside medical care for an individual on or near the Work, Contractor shall notify ODR and other parties as may be directed promptly, but no later than twenty-four (24) hours after Contractor learns that an event required medical care.
 - 7.4.1 Record the location of the event and the circumstances surrounding it, by using photography or other means, and gather witness statements and other documentation which describes the event.
 - 7.4.2 Supply ODR and A/E with an incident report no later than thirty-six (36) hours after the occurrence of the event. In the event of a catastrophic incident (one (1) fatality or three (3) workers hospitalized), barricade and leave intact the scene of the incident until all investigations are complete. A full set of incident investigation documents, including facts, finding of cause, and remedial plans shall be provided within one (1) week after occurrence, unless otherwise directed by legal counsel. Contractor shall provide ODR with

written notification within one week of such catastrophic event if legal counsel delays submission of full report.

- 7.5 Environmental Safety. Upon encountering any previously unknown potentially hazardous material, or other materials potentially contaminated by hazardous material, Contractor shall immediately stop work activities impacted by the discovery, secure the affected area, and notify ODR immediately.

7.5.1 Bind all Subcontractors to the same duty.

7.5.2 Upon receiving such notice, ODR will promptly engage qualified experts to make such investigations and conduct such tests as may be reasonably necessary to determine the existence or extent of any environmental hazard. Upon completion of this investigation, ODR will issue a written report to Contractor identifying the material(s) found and indicate any necessary steps to be taken to treat, handle, transport or dispose of the material.

7.5.3 Owner may hire third-party Contractors to perform any or all such steps.

7.5.4 Should compliance with ODR's instructions result in an increase in Contractor's cost of performance, or delay the Work, Owner will make an equitable adjustment to the Contract Sum and/or the time of completion, and modify the Contract in writing accordingly.

- 7.6 Trenching Plan. When the project requires excavation which either exceeds a depth of four (4) feet, or results in any worker's upper body being positioned below grade level, Contractor is required to submit a trenching plan to ODR prior to commencing trenching operations unless an engineered plan is part of the Contract Documents. The plan is required to be prepared and sealed by a professional engineer registered in the State of Texas, and hired or employed by Contractor or Subcontractor to perform the work. Said engineer cannot be anyone who is otherwise either directly or indirectly engaged on this project.

Article 8. Quality Control

- 8.1 Materials & Workmanship. Contractor shall execute Work in a good and workmanlike manner in accordance with the Contract Documents. Contractor shall develop and provide a quality control plan specific to this Project and acceptable to Owner. Where Contract Documents do not specify quality standards, complete and construct all Work in compliance with generally accepted construction industry standards. Unless otherwise specified, incorporate all new materials and equipment into the Work under the Contract.

8.2 Testing.

8.2.1 Owner is responsible for coordinating and paying for routine and special tests required to confirm compliance with quality and performance requirements, except as stated below or otherwise required by the Contract Documents. Contractor shall provide the following testing:

- 8.2.1.1 Any test of basic material or fabricated equipment included as part of a submittal for a required item in order to establish compliance with the Contract Documents.
 - 8.2.1.2 Any test of basic material or fabricated equipment offered as a substitute for a specified item on which a test may be required in order to establish compliance with the Contract Documents.
 - 8.2.1.3 Preliminary, start-up, pre-functional and operational testing of building equipment and systems as necessary to confirm operational compliance with requirements of the Contract Documents.
 - 8.2.1.4 All subsequent tests on original or replaced materials conducted as a result of prior testing failure.
- 8.2.2 All testing shall be performed in accordance with standard test procedures by an accredited laboratory, or special consultant as appropriate, acceptable to Owner. Results of all tests shall be provided promptly to ODR, A/E, and Contractor.
- 8.2.3 Non-Compliance (Test Results). Should any of the tests indicate that a material and/or system does not comply with the Contract requirements, the burden of proof remains with Contractor, subject to:
- 8.2.3.1 Contractor selection and submission of the laboratory for Owner acceptance.
 - 8.2.3.2 Acceptance by Owner of the quality and nature of tests.
 - 8.2.3.3 All tests taken in the presence of A/E and/or ODR, or their representatives.
 - 8.2.3.4 If tests confirm that the material/systems comply with Contract Documents, Owner will pay the cost of the test.
 - 8.2.3.5 If tests reveal noncompliance, Contractor will pay those laboratory fees and costs of that particular test and all future tests, of that failing Work, necessary to eventually confirm compliance with Contract Documents.
 - 8.2.3.6 Proof of noncompliance with the Contract Documents will make Contractor liable for any corrective action which ODR determines appropriate, including complete removal and replacement of non-compliant work or material.
- 8.2.4 Notice of Testing. Contractor shall give ODR and A/E timely notice of its readiness and the date arranged so ODR and A/E may observe such inspection, testing, or approval.

8.2.5 Test Samples. Contractor is responsible for providing Samples of sufficient size for test purposes and for coordinating such tests with their Work Progress Schedule to avoid delay.

8.2.6 Covering Up Work. If Contractor covers up any Work without providing Owner an opportunity to inspect, Contractor shall, if requested by ODR, uncover and recover the work at Contractor's expense.

8.3 Submittals.

8.3.1 Contractor's Submittals. Contractor shall submit with reasonable promptness consistent with the Project schedule and in orderly sequence all Shop Drawings, Samples, or other information required by the Contract Documents, or subsequently required by Change Order. Prior to submitting, Contractor shall review each submittal for general compliance with Contract Documents and approve submittals for review by A/E and Owner by an approval stamp affixed to each copy. Submittal data presented without Contractor's stamp will be returned without review or comment, and any delay resulting from failure is Contractor's responsibility.

8.3.1.1 Contractor shall within twenty-one (21) days of the effective date of the Notice To Proceed with construction, submit to ODR and A/E, a submittal schedule/register, organized by specification section, listing all items to be furnished for review and approval by A/E and Owner. The list shall include Shop Drawings, manufacturer's literature, certificates of compliance, materials Samples, materials colors, guarantees, and all other items identified throughout the Specifications.

8.3.1.2 Contractor shall indicate the type of item, Contract requirements reference, and Contractor's scheduled dates for submitting the item along with the requested dates for approval answers from A/E and Owner. The submittal register shall indicate the projected dates for procurement of all included items and shall be updated at least monthly with actual approval and procurement dates. Contractor's Submittal Register must be reasonable in terms of the review time for complex submittals. Contractor's submittal schedule must be consistent with the Work Progress Schedule and identify critical submittals. Show and allow a minimum of fifteen (15) calendar days duration after receipt by A/E and ODR for review and approval. If resubmittal required, allow a minimum of an additional fifteen (15) calendar days for review. Submit the updated Submittal Register with each request for progress payment. Owner may establish routine review procedures and schedules for submittals at the preconstruction conference and/or elsewhere in the Contract Documents. If Contractor fails to update and provide the Submittal Register as required, Owner may, after seven (7) days notice to Contractor withhold a reasonable sum of money that would otherwise be due Contractor.

- 8.3.1.3 Contractor shall coordinate the Submittal Register with the Work Progress Schedule. Do not schedule Work requiring a submittal to begin prior to scheduling review and approval of the related submittal. Revise and/or update both schedules monthly to ensure consistency and current project data. Provide to ODR the updated Submittal Register and schedule with each application for progress payment. Refer to requirements for the Work Progress Schedule for inclusion of procurement activities therein. Regardless, the Submittal Register shall identify dates submitted and returned and shall be used to confirm status and disposition of particular items submitted, including approval or other action taken and other information not conveniently tracked through the Work Progress Schedule.
- 8.3.1.4 By submitting Shop Drawings, Samples or other required information, Contractor represents that it has determined and verified all applicable field measurements, field construction criteria, materials, catalog numbers and similar data to the extent possible from existing conditions and design information provided by A/E prior to fabrication; and has checked and coordinated each Shop Drawing and Sample with the requirements of the Work and the Contract Documents.
- 8.3.2 Review of Submittals. A/E and ODR review is only for conformance with the design concept and the information provided in the Contract Documents. Responses to submittals will be in writing. The approval of a separate item does not indicate approval of an assembly in which the item functions. The approval of a submittal does not relieve Contractor of responsibility for any deviation from the requirements of the Contract unless Contractor informs A/E and ODR of such deviation in a clear, conspicuous, and written manner on the submittal transmittal and at the time of submission, and obtains Owner's written specific approval of the particular deviation.
- 8.3.3 Correction and Resubmission. Contractor shall make any corrections required to a submittal and resubmit the required number of corrected copies promptly so as to avoid delay, until submittal approval. Direct attention in writing to A/E and ODR, when applicable, to any new revisions other than the corrections requested on previous submissions.
- 8.3.4 Limits on Shop Drawing Review. Contractor shall not commence any Work requiring a submittal until review of the submittal under Subsection 8.3.2. Construct all such work in accordance with reviewed submittals. Comments incorporated as part of the review in Subsection 8.3.2 of Shop Drawings and Samples is not authorization to Contractor to perform extra work or changed work unless authorized through a Change Order. A/E's and ODR's review, if any, does not relieve Contractor from responsibility for defects in the Work resulting from errors or omissions of any kind on the submittal, regardless of any approval action. A/E or ODR shall not make formal changes to the Contract Documents via the submittal process. Changes

to the Construction Documents shall be accomplished via Section 3.2.2 and Article 11 Changes.

8.3.5 No Substitutions Without Approval. ODR and A/E may receive and consider Contractor's request for substitution when Contractor agrees to reimburse Owner for review costs and satisfies the requirements of this section. If Contractor does not satisfy these conditions, ODR and A/E will return the request without action except to record noncompliance with these requirements. Owner will not consider the request if Contractor cannot provide the product or method because of failure to pursue the Work promptly or coordinate activities properly. Contractor's request for a substitution may be considered by ODR and A/E when:

8.3.5.1 The Contract Documents do not require extensive revisions; and

8.3.5.2 Proposed changes are in keeping with the general intent of the Contract Documents and the design intent of A/E and do not result in an increase in cost to Owner; and

8.3.5.3 The request is timely, fully documented, properly submitted and one or more of the following apply:

8.3.5.3.1 Contractor cannot provide the specified product, assembly or method of construction within the Contract Time;

8.3.5.3.2 The request directly relates to an "or-equal" clause or similar language in the Contract Documents;

8.3.5.3.3 The request directly relates to a "product design standard" or "performance standard" clause in the Contract Documents;

8.3.5.3.4 The requested substitution offers Owner a substantial advantage in cost, time, energy conservation or other considerations, after deducting additional responsibilities Owner must assume;

8.3.5.3.5 The specified product or method of construction cannot receive necessary approval by an authority having jurisdiction, and ODR can approve the requested substitution;

8.3.5.3.6 Contractor cannot provide the specified product, assembly or method of construction in a manner that is compatible with other materials and where Contractor certifies that the substitution will overcome the incompatibility;

8.3.5.3.7 Contractor cannot coordinate the specified product, assembly or method of construction with other materials and where Contractor certifies they can coordinate the proposed substitution; or

8.3.5.3.8 The specified product, assembly or method of construction cannot provide a warranty required by the Contract Documents and where Contractor certifies that the proposed substitution provides the required warranty.

8.3.5.3.9 The manufacture of the specified product has been removed from production due to cancellation or obsolescence.

8.3.6 Unauthorized Substitutions at Contractor's Risk. Contractor is financially responsible for any additional costs or delays resulting from unauthorized substitution of materials, equipment or fixtures other than those specified. Contractor shall reimburse Owner for any increased design or contract administration costs resulting from such unauthorized substitutions.

8.4 Field Mock-up.

8.4.1 Mock-ups shall be constructed prior to commencement of a specified scope of work to confirm acceptable workmanship.

8.4.1.1 As a minimum, field mock-ups shall be constructed for roofing systems, exterior veneer / finish systems, glazing systems, and any other Work requiring a mock-up as identified throughout the Contract Documents. Mock-ups for systems not part of the Project scope shall not be required.

8.4.1.2 Mock-ups may be incorporated into the Work if allowed by the Contract Documents and if acceptable to ODR. If mock-ups are freestanding, they shall remain in place until otherwise directed by Owner.

8.4.1.3 Contractor shall include field mock-ups in their Work Progress Schedule and shall notify ODR and A/E of readiness for review sufficiently in advance to coordinate review without delay.

8.5 Inspection During Construction.

8.5.1 Contractor shall provide sufficient, safe, and proper facilities, including equipment as necessary for safe access, at all reasonable times for observation and/or inspection of the Work by Owner and its agents. "Reasonable times" of inspection allow for sufficient monitoring of the quality of materials and installation without substantially impeding the progress of the Work.

8.5.2 Contractor shall not cover up any Work with finishing materials or other building components prior to providing Owner and its agents an opportunity to perform an inspection of the Work.

8.5.2.1 Should corrections of the Work be required for approval, Contractor shall not cover-up corrected Work until Owner indicates approval.

8.5.2.2 Contractor shall provide notification of at least five (5) working days or otherwise as mutually agreed, to ODR of the anticipated need for a cover-up inspection. Should ODR fail to make the necessary inspection within the agreed period, Contractor may proceed with cover-up Work, but is not relieved of responsibility for Work to comply with requirements of the Contract Documents.

Article 9. Construction Schedules

9.1 Contract Time. **TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT.** The Contract Time is the time between the dates indicated in the Notice to Proceed for commencement of the Work and for achieving Substantial Completion. The Contract Time can be modified only by Change Order. Failure to achieve Substantial Completion within the Contract Time as otherwise agreed to in writing will cause damage to Owner and may subject Contractor to liquidated damages as provided in the Contract Documents. If Contractor fails to achieve Final Completion within thirty (30) calendar days after Substantial Completion or a mutually agreed upon longer period of time between Contractor and Owner, Contractor shall be responsible for Owner's additional inspection, project management, and maintenance cost to the extent caused by Contractor's failure to achieve Final Completion.

9.2 Notice to Proceed. Owner will issue a Notice to Proceed which shall state the dates for beginning Work and for achieving Substantial Completion of the Work.

9.3 Work Progress Schedule. Refer to Supplementary General Conditions or Special Conditions for additional schedule requirements. Unless indicated otherwise in those documents, Contractor shall submit their initial Work Progress Schedule for the Work in relation to the entire Project not later than twenty-one (21) days after the effective date of the Notice to Proceed to ODR and A/E. Unless otherwise indicated in the Contract Documents, the Work Progress Schedule shall be computerized Critical Path Method (CPM) with fully editable logic. This initial schedule shall indicate the dates for starting and completing the various aspects required to complete the Work, including mobilization, procurement, installation, testing, inspection, delivery of Close-out Documents and acceptance of all the Work of the Contract. When acceptable to Owner, the initially accepted schedule shall be the Baseline Schedule for comparison to actual conditions throughout the Contract duration.

9.3.1 Schedule Requirements. Contractor shall submit electronic and paper copy of the initial Work Progress Schedule reflecting accurate and reliable representations of the planned progress of the Work, the Work to date if any, and of Contractor's actual plans for its completion. Contractor shall organize

and provide adequate detail so the schedule is capable of measuring and forecasting the effect of delaying events on completed and uncompleted activities.

9.3.1.1 Contractor shall resubmit initial schedule as required to address review comments from A/E and ODR until such schedule is accepted as the Baseline Schedule.

9.3.1.2 Submittal of a schedule, schedule revision or schedule update constitutes Contractor's representation to Owner of the accurate depiction of all progress to date and that Contractor will follow the schedule as submitted in performing the Work.

9.3.2 Schedule Updates. Contractor shall update the Work Progress Schedule and the Submittal Register monthly, as a minimum, to reflect progress to date and current plans for completing the Work, while maintaining original schedule as Baseline Schedule and submit paper and electronic copies of the update to A/E and ODR as directed, but as a minimum with each request for payment. Owner has no duty to make progress payments unless accompanied by the updated Work Progress Schedule. Show the anticipated date of completion reflecting all extensions of time granted through Change Order as of the date of the update. Contractor may revise the Work Progress Schedule when in Contractor's judgment it becomes necessary for the management of the Work. Contractor shall identify all proposed changes to schedule logic to Owner and to A/E via an executive summary accompanying the updated schedule for review prior to final implementation of revisions into a revised Baseline Schedule. Schedule changes that materially impact Owner's operations shall be communicated promptly to ODR and shall not be incorporated into the revised Baseline Schedule without ODR's consent.

9.3.3 The Work Progress Schedule is for Contractor's use in managing the Work and submittal of the schedule, and successive updates or revisions, is for the information of Owner and to demonstrate that Contractor has complied with requirements for planning the Work. Owner's acceptance of a schedule, schedule update or revision constitutes Owner's agreement to coordinate its own activities with Contractor's activities as shown on the schedule.

9.3.3.1 Acceptance of the Work Progress Schedule, or update and/or revision thereto does not indicate any approval of Contractor's proposed sequences and duration.

9.3.3.2 Acceptance of a Work Progress Schedule update or revision indicating early or late completion does not constitute Owner's consent, alter the terms of the Contract, or waive either Contractor's responsibility for timely completion or Owner's right to damages for Contractor's failure to do so.

9.3.3.3 Contractor's scheduled dates for completion of any activity or the entire Work do not constitute a change in terms of the Contract.

Change Orders are the only method of modifying the Substantial Completion Date(s) and Contract Time.

- 9.4 Ownership of Float. Unless indicated otherwise in the Contract Documents, Contractor shall develop its schedule, pricing, and execution plan to provide a minimum of ten (10) percent total float at acceptance of the Baseline Schedule. Float time contained in the Work Progress Schedule is not for the exclusive benefit of Contractor or Owner, but belongs to the Project and may be consumed by either party as needed on a first-used basis.
- 9.5 Completion of Work. Contractor is accountable for completing the Work within the Contract Time stated in the Contract, or as otherwise amended by Change Order.
- 9.5.1 If, in the judgment of Owner, the work is behind schedule and the rate of placement of work is inadequate to regain scheduled progress to insure timely completion of the entire work or a separable portion thereof, Contractor, when so informed by Owner, shall immediately take action to increase the rate of work placement by:
- 9.5.1.1 An increase in working forces.
 - 9.5.1.2 An increase in equipment or tools.
 - 9.5.1.3 An increase in hours of work or number of shifts.
 - 9.5.1.4 Expedite delivery of materials.
 - 9.5.1.5 Other action proposed if acceptable to Owner.
- 9.5.2 Within ten (10) days after such notice from ODR, Contractor shall notify ODR in writing of the specific measures taken and/or planned to increase the rate of progress. Contractor shall include an estimate as to the date of scheduled progress recovery and an updated Work Progress Schedule illustrating Contractor's plan for achieving timely completion of the Project. Should ODR deem the plan of action inadequate, Contractor shall take additional steps or make adjustments as necessary to its plan of action until it meets with ODR's approval.
- 9.6 Modification of the Contract Time.
- 9.6.1 Delays and extension of time as hereinafter described are valid only if executed in accordance with provisions set forth in Article 11.
- 9.6.2 When a delay defined herein as excusable prevents Contractor from completing the Work within the Contract Time, Contractor is entitled to an extension of time. Owner will make an equitable adjustment and extend the number of days lost because of excusable delay or Weather Days, as measured by Contractor's progress schedule. All extensions of time will be granted in calendar days. In no event, however, will an extension of time be granted for

delays that merely extend the duration of non-critical activities, or which only consume float without delaying the project Substantial Completion date(s).

9.6.2.1 A “Weather Day” is a day on which Contractor’s current schedule indicates Work is to be done, and on which inclement weather and/or related site conditions prevent Contractor from performing seven (7) continuous hours of Work on the critical path between the hours of 7:00 a.m. and 6:00 p.m. Weather days are excusable delays. When weather conditions at the site prevent work from proceeding, Contractor shall immediately notify ODR for confirmation of the conditions. At the end of each calendar month, submit to ODR and A/E a list of Weather Days occurring in that month along with documentation of the impact on critical activities. Based on confirmation by ODR, any time extension granted will be issued by Change Order. If Contractor and Owner cannot agree on the time extension, Owner may issue a ULCO for fair and reasonable time extension.

9.6.2.2 Excusable Delay. Contractor is entitled to an equitable adjustment of the Contract Time, issued via change order, for delays caused by the following:

9.6.2.2.1 Errors, omissions and imperfections in design, which A/E corrects by means of changes in the Drawings and Specifications.

9.6.2.2.2 Unanticipated physical conditions at the Site, which A/E corrects by means of changes to the Drawings and Specifications or for which ODR directs changes in the Work identified in the Contract Documents.

9.6.2.2.3 Failure of Owner to have secured property, right-of-way or easements necessary for Work to begin or progress.

9.6.2.2.4 Changes in the Work that effect activities identified in Contractor’s schedule as “critical” to completion of the entire Work, if such changes are ordered by ODR or recommended by A/E and ordered by ODR.

9.6.2.2.5 Suspension of Work for unexpected natural events, Force Majeure (sometimes called “acts of God”), civil unrest, strikes or other events which are not within the reasonable control of Contractor.

9.6.2.2.6 Suspension of Work for convenience of ODR, which prevents Contractor from completing the Work within the Contract Time.

9.6.2.2.7 Administrative delays caused by activities or approval requirements related to an Authority Having Jurisdiction.

9.6.3 Contractor's relief in the event of such delays is the time impact to the critical path as determined by analysis of Contractor's schedule. In the event that Contractor incurs additional direct costs because of the excusable delays other than described in Subparagraph 9.6.2.2.4 and within the reasonable control of Owner, the Contract price and Contract Time are to be equitably adjusted by Owner pursuant to the provisions of Article 11.

9.7 No Damages for Delay. Contractor has no claim for monetary damages for delay or hindrances to the work from any cause, including without limitation any act or omission of Owner.

9.8 Concurrent Delay. When the completion of the Work is simultaneously delayed by an excusable delay and a delay arising from a cause not designated as excusable, Contractor may not be entitled to a time extension for the period of concurrent delay.

9.9 Other Time Extension Requests. Time extensions requested in association with changes to the Work directed or requested by Owner shall be included with Contractor's proposed costs for such change. Time extensions requested for inclement weather are covered by Paragraph 9.6.2.1 above. If Contractor believes that the completion of the Work is delayed by a circumstance other than for changes directed to the Work or weather, they shall give ODR written notice, stating the nature of the delay and the activities potentially affected, within five (5) days after the onset of the event or circumstance giving rise to the excusable delay. Contractor shall provide sufficient written evidence to document the delay. In the case of a continuing cause of delay, only one claim is necessary. State claims for extensions of time in numbers of whole or half days.

9.9.1 Within ten (10) days after the cessation of the delay, Contractor shall formalize its request for extension of time in writing to include a full analysis of the schedule impact of the delay and substantiation of the excusable nature of the delay. All changes to the Contract Time or made as a result of such claims is by Change Order, as set forth in Article 11.

9.9.2 No extension of time releases Contractor or the Surety furnishing a performance or payment bond from any obligations under the Contract or such a bond. Those obligations remain in full force until the discharge of the Contract.

9.9.3 Contents of Time Extension Requests. Contractor shall provide with each Time Extension Request a quantitative demonstration of the impact of the delay on project completion time, based on the Work Progress Schedule. Contractor shall include with Time Extension Requests a reasonably detailed narrative setting forth:

- 9.9.3.1 The nature of the delay and its cause; the basis of Contractor's claim of entitlement to a time extension.
- 9.9.3.2 Documentation of the actual impacts of the claimed delay on the critical path indicated in Contractor's Work Progress Schedule, and any concurrent delays.
- 9.9.3.3 Description and documentation of steps taken by Contractor to mitigate the effect of the claimed delay, including, when appropriate, the modification of the Work Progress Schedule.
- 9.9.4 Owner's Response. Owner will respond to the Time Extension Request by providing to Contractor written notice of the number of days granted, if any, and giving its reason if this number differs from the number of days requested by Contractor.
 - 9.9.4.1 Owner will not grant time extensions for delays that do not affect the Contract Substantial Completion date.
 - 9.9.4.2 Owner will respond to each properly submitted Time Extension Request within fifteen (15) days following receipt. If Owner cannot reasonably make a determination about Contractor's entitlement to a time extension within that time, Owner will notify Contractor in writing. Unless otherwise agreed by Contractor, Owner has no more than fifteen (15) additional days to prepare a final response. If Owner fails to respond within forty-five (45) days from the date the Time Extension Request is received, Contractor is entitled to a time extension in the amount requested.
- 9.10 Failure to Complete Work Within the Contract Time. **TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT.** Contractor's failure to substantially complete the Work within the Contract Time or to achieve Substantial Completion as required will cause damage to Owner. These damages shall be liquidated by agreement of Contractor and Owner, in the amount per day as set forth in the Contract Documents.
- 9.11 Liquidated Damages. Owner may collect liquidated damages due from Contractor directly or indirectly by reducing the Contract Sum in the amount of liquidated damages stated in the Supplementary General Conditions or Special Conditions.

Article 10. Payments

- 10.1 Schedule of Values. Contractor shall submit to ODR and A/E for acceptance a Schedule of Values accurately itemizing material and labor for the various classifications of the Work based on the organization of the specification sections and of sufficient detail acceptable to ODR. The accepted Schedule of Values will be the basis for the progress payments under the Contract.

- 10.1.1 No progress payments will be made prior to receipt and acceptance of the Schedule of Values, provided in such detail as required by ODR, and submitted not less than twenty-one (21) days prior to the first request for payment. The Schedule of Values shall follow the order of trade divisions of the Specifications and include itemized costs for general conditions, costs for preparing close out documents, fees, contingencies, and Owner cash allowances, if applicable, so that the sum of the items will equal the Contract price. As appropriate, assign each item labor and/or material values, the subtotal thereof equaling the value of the work in place when complete.
- 10.1.1.1 Owner requires that the Work items be inclusive of the cost of the Work items only. Any contract markups for overhead and profit, general conditions, etc., shall be contained within separate line items for those specific purposes which shall be divided into at least two(2) lines, one (1) for labor and one (1) for materials.
- 10.1.2 Contractor shall retain a copy of all worksheets used in preparation of its bid or proposal, supported by a notarized statement that the worksheets are true and complete copies of the documents used to prepare the bid or proposal. Make the worksheets available to ODR at the time of Contract execution. Thereafter Contractor shall grant Owner during normal business hours access to said copy of worksheets at any time during the period commencing upon execution of the Contract and ending one year after final payment.
- 10.2. Progress Payments. Contractor will receive periodic progress payments for Work performed, materials in place, suitably stored on Site, or as otherwise agreed to by Owner and Contractor. Payment is not due until receipt by ODR or his designee of a correct and complete Pay Application in electronic and/or hard copy format as set forth in Supplementary General Conditions, Special Conditions, and certified by A/E. Progress payments are made provisionally and do not constitute acceptance of work not in accordance with the Contract Documents. Owner will not process progress payment applications for Change Order Work until all parties execute the Change Order.
- 10.2.1 Preliminary Pay Worksheet. Once each month that a progress payment is to be requested, the Contractor shall submit to A/E and ODR a complete, clean copy of a preliminary pay worksheet or preliminary pay application, to include the following:
- 10.2.1.1 Contractor's estimate of the amount of Work performed, labor furnished and materials incorporated into the Work, using the established Schedule of Values;
- 10.2.1.2 An updated Work Progress Schedule including the executive summary and all required schedule reports;
- 10.2.1.3 HUB subcontracting plan Progress Assessment Report as required in Paragraph 4.2.5.1;

10.2.1.4 Such additional documentation as Owner may require as set forth in the Supplementary General Conditions or elsewhere in the Contract Documents; and

10.2.1.5 Construction payment affidavit.

10.2.2 Contractor's Application for Payment. As soon as practicable, but in no event later than seven (7) days after receipt of the preliminary pay worksheet, A/E and ODR will meet with Contractor to review the preliminary pay worksheet and to observe the condition of the Work. Based on this review, ODR and A/E may require modifications to the preliminary pay worksheet prior to the submittal of an Application for Payment, and will promptly notify Contractor of revisions necessary for approval. As soon as practicable, Contractor shall submit its Application for Payment on the appropriate and completed form, reflecting the required modifications to the Schedule of Values required by A/E and/or ODR. Attach all additional documentation required by ODR and/or A/E, as well as an affidavit affirming that all payrolls, bills for labor, materials, equipment, subcontracted work and other indebtedness connected with Contractor's Application for Payment are paid or will be paid within the time specified in Tex. Gov't Code, Ch. 2251. No Application for Payment is complete unless it fully reflects all required modifications, and attaches all required documentation including Contractor's affidavit.

10.2.3 Certification by Architect/Engineer. Within five (5) days or earlier following A/E's receipt of Contractor's formal Application for Payment, A/E will review the Application for Payment for completeness, and forward it to ODR. A/E will certify that the application is complete and payable, or that it is incomplete, stating in particular what is missing. If the Application for Payment is incomplete, Contractor shall make the required corrections and resubmit the Application for Payment for processing.

10.3 Owner's Duty to Pay. Owner has no duty to pay the Contractor except on receipt by ODR of: 1) a complete Application for Payment certified by A/E; 2) Contractor's updated Work Progress Schedule; and 3) confirmation that Contractor's record documentation at the Site is kept current.

10.3.1 Payment for stored materials and/or equipment confirmed by Owner and A/E to be on-site or otherwise properly stored is limited to eighty-five (85) percent of the invoice price or eighty-five (85) percent of the scheduled value for the materials or equipment, whichever is less.

10.3.2 Retainage. Owner will withhold from each progress payment, as retainage, five (5) percent of the total earned amount, the amount authorized by law, or as otherwise set forth in the Supplementary General Conditions or Special Conditions. Retainage is managed in conformance with Tex. Gov't Code, Ch. 2252, Subch. B.

- 10.3.2.1 Contractor shall provide written consent of its surety for any request for reduction or release of retainage.
 - 10.3.2.2 At least sixty-five (65) percent of the Contract, or such other discrete Work phase as set forth in Subsection 12.1.6 or Work package delineated in the Contract Documents, must be completed before Owner can consider a retainage reduction or release.
 - 10.3.2.3 Contractor shall not withhold retainage from their Subcontractors and suppliers in amounts that are any percentage greater than that withheld in its Contract with Owner under this subsection, unless otherwise acceptable to Owner.
- 10.3.3 Price Reduction to Cover Loss. Owner may reduce any Application for Payment, prior to payment to the extent necessary to protect Owner from loss on account of actions of Contractor including, but not limited to, the following:
- 10.3.3.1 Defective or incomplete Work not remedied;
 - 10.3.3.2 Damage to Work of a separate Contractor;
 - 10.3.3.3 Failure to maintain scheduled progress or reasonable evidence that the Work will not be completed within the Contract Time;
 - 10.3.3.4 Persistent failure to carry out the Work in accordance with the Contract Documents;
 - 10.3.3.5 Reasonable evidence that the Work cannot be completed for the unpaid portion of the Contract Sum;
 - 10.3.3.6 Assessment of fines for violations of prevailing wage rate law; or
 - 10.3.3.7 Failure to include the appropriate amount of retainage for that periodic progress payment.
- 10.3.4 Title to all material and Work covered by progress payments transfers to Owner upon payment.
- 10.3.4.1 Transfer of title to Owner does not relieve Contractor and its Subcontractors of the sole responsibility for the care and protection of materials and Work upon which payments have been made until substantial completion, responsibility for the care and protection of materials and Work in areas where punch list items are completed until final completion or the restoration of any damaged Work, or waive the right of Owner to require the fulfillment of all the terms of the Contract.

- 10.4 Progress Payments. Progress payments to Contractor do not release Contractor or its surety from any obligations under the Contract.
- 10.4.1 Upon Owner's request, Contractor shall furnish manifest proof of the status of Subcontractor's accounts in a form acceptable to Owner.
- 10.4.2 Pay estimate certificates must be signed by a corporate officer or a representative duly authorized by Contractor.
- 10.4.3 Provide copies of bills of lading, invoices, delivery receipts or other evidence of the location and value of such materials in requesting payment for materials.
- 10.4.4 For purposes of Tex. Gov't Code § 2251.021(a)(2), the date the performance of service is complete is the date when ODR approves the Application for Payment.
- 10.5 Off-Site Storage. With prior approval by Owner and in the event Contractor elects to store materials at an off-site location, abide by the following conditions, unless otherwise agreed to in writing by Owner.
- 10.5.1 Store materials in a commercial warehouse meeting the criteria stated below.
- 10.5.2 Provide insurance coverage adequate not only to cover materials while in storage, but also in transit from the off-site storage areas to the Project Site. Copies of duly authenticated certificates of insurance, made out to insure the State agency which is signatory to the Contract, must be filed with Owner's representative.
- 10.5.3 Inspection by Owner's representative is allowed at any time. Owner's inspectors must be satisfied with the security, control, maintenance, and preservation measures.
- 10.5.4 Materials for this Project are physically separated and marked for the Project in a sectioned-off area. Only materials which have been approved through the submittal process are to be considered for payment.
- 10.5.5 Owner reserves the right to reject materials at any time prior to final acceptance of the complete Contract if they do not meet Contract requirements regardless of any previous progress payment made.
- 10.5.6 With each monthly payment estimate, submit a report to ODR and A/E listing the quantities of materials already paid for and still stored in the off-site location.
- 10.5.7 Make warehouse records, receipts and invoices available to Owner's representatives, upon request, to verify the quantities and their disposition.

10.5.8 In the event of Contract termination or default by Contractor, the items in storage off-site, upon which payment has been made, will be promptly turned over to Owner or Owner's agents at a location near the jobsite as directed by ODR. The full provisions of performance and payment bonds on this Project cover the materials off-site in every respect as though they were stored on the Project Site.

10.6 Time for Payment by Contractor Pursuant to Tex. Gov't Code § 2255.022.

10.6.1 Contractor who receives a payment from a governmental entity shall pay Subcontractor the appropriate share of the payment not later than the tenth (10th) day after the date Contractor receives the payment.

10.6.2 The appropriate share is overdue on the eleventh (11th) day after the date Contractor receives the payment.

Article 11. Changes

11.1 Change Orders. A Change Order issued after execution of the Contract is a written order to Contractor, signed by ODR, Contractor, and A/E, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time can only be changed by Change Order. A Change Order signed by Contractor indicates his agreement therewith, including the adjustment in the Contract Sum and/or the Contract Time. ODR may issue a written authorization for Contractor to proceed with Work of a Change Order in advance of final execution by all parties in accordance with Section 11.9.

11.1.1 Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, and the Contract Sum and the Contract Time will be adjusted accordingly. All such changes in the Work shall be authorized by Change Order or ULCO, and shall be performed under the applicable conditions of the Contract Documents. If such changes cause an increase or decrease in Contractor's cost of, or time required for, performance of the Contract, an equitable adjustment shall be made and confirmed in writing in a Change Order or a ULCO.

11.1.2 It is recognized by the parties hereto and agreed by them that the Specifications and Drawings may not be complete or free from errors, omissions and imperfections or that they may require changes or additions in order for the Work to be completed to the satisfaction of Owner and that, accordingly, it is the express intention of the parties, notwithstanding any other provisions in this Contract, that any errors, omissions or imperfections in such Specifications and Drawings, or any changes in or additions to same or to the Work ordered by Owner and any resulting delays in the Work or increases in Contractor's costs and expenses arising out of such errors, shall not constitute or give rise to any claim, demand or cause of action of any nature whatsoever in favor of Contractor, whether for breach of Contract, or otherwise; provided, however, that Owner shall be liable to Contractor for the

sum stated to be due Contractor in any Change Order approved and signed by both parties, it being agreed hereby that such sum, together with any extension of time contained in said Change Order, shall constitute full compensation to Contractor for all costs, expenses and damages to Contractor, as permitted under Tex. Gov't Code, Ch. 2260.

11.1.3 Procedures for administration of Change Orders shall be established by Owner and stated in Supplementary General Conditions, Special Conditions, or elsewhere in the Contract Documents.

11.1.4 No verbal order, verbal statement, or verbal direction of Owner or his duly appointed representative shall be treated as a change under this article or entitle Contractor to an adjustment.

11.1.5 Contractor agrees that Owner or any of its duly authorized representatives shall have access and the right to examine any directly pertinent books, documents, papers, and records of Contractor. Further, Contractor agrees to include in all its subcontracts a provision to the effect that Subcontractor agrees that Owner or any of its duly authorized representatives shall have access to and the right to examine any directly pertinent books, documents, papers and records of such Subcontractor relating to any claim arising from the Contract, whether or not the Subcontractor is a party to the claim. The period of access and examination described herein which relates to appeals under the Disputes article of the Contract, litigation, or the settlement of claims arising out of the performance of the Contract shall continue until final disposition of such claims, appeals or litigation.

11.2 Unit Prices. If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a Proposed Change Order that application of the agreed unit prices to the quantities of work proposed will cause substantial inequity to Owner or Contractor, the applicable unit prices shall be equitably adjusted as provided in the Supplementary General Conditions or Special Conditions or as agreed to by the parties and incorporated into a Change Order.

11.3 Claims for Additional Costs.

11.3.1 If Contractor wishes to make a claim for an increase in the Contract Sum not related to a requested change, they shall give Owner and A/E written notice thereof within twenty-one (21) days after the occurrence of the event giving rise to such claim, but, in any case before proceeding to execute the Work considered to be additional cost or time, except in an emergency endangering life or property in which case Contractor shall act in accordance with Subsection 7.2.1. No such claim shall be valid unless so made. If Owner and Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined as set forth under Article 15. Any change in the Contract Sum resulting from such claim shall be authorized by a Change Order or a ULCO.

- 11.3.2 If Contractor claims that additional cost is involved because of, but not limited to, 1) any written interpretation of the Contract Documents, 2) any order by Owner to stop the Work pursuant to Article 14 where Contractor was not at fault, or 3) any written order for a minor change in the Work issued pursuant to Section 11.4, Contractor shall make such claim as provided in Subsection 11.3.1.
- 11.3.3 Should Contractor or his Subcontractors fail to call attention of A/E to discrepancies or omissions in the Contract Documents, but claim additional costs for corrective Work after Contract award, Owner may assume intent to circumvent competitive bidding for necessary corrective Work. In such case, Owner may choose to let a separate Contract for the corrective Work, or issue a ULCO to require performance by Contractor. Claims for time extensions or for extra cost resulting from delayed notice of patent Contract Document discrepancies or omissions will not be considered by Owner.
- 11.4 Minor Changes. A/E, with concurrence of ODR, will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time. Such changes shall be effected by written order which Contractor shall carry out promptly and record on as-built record documents.
- 11.5 Concealed Site Conditions. Contractor is responsible for visiting the Site and being familiar with local conditions such as the location, accessibility, and general character of the Site and/or building. If, in the performance of the Contract, subsurface, latent, or concealed conditions at the Site are found to be materially different from the information included in the Contract Documents, or if unknown conditions of an unusual nature are disclosed differing materially from the conditions usually inherent in Work of the character shown and specified, ODR and A/E shall be notified in writing of such conditions before they are further disturbed or subsequent related work proceeds. Upon such notice, or upon its own observation of such conditions, A/E, with the approval of ODR, will promptly make such changes in the Drawings and Specifications as they deem necessary to conform to the different conditions, and any increase or decrease in the cost of the Work, or in the time within which the Work is to be completed, resulting from such changes will be adjusted by Change Order, subject to the prior approval of ODR.
- 11.6 Extension of Time. All changes to the Contract Time shall be made as a consequence of requests as required under Section 9.6, and as documented by Change Order as provided under Section 11.1.
- 11.7 Administration of Change Order Requests. All changes in the Contract shall be administered in accordance with procedures approved by Owner, and when required, make use of such electronic information management system(s) as Owner may employ.
- 11.7.1 Routine changes in the construction Contract shall be formally initiated by A/E by means of a PCO form detailing requirements of the proposed change for pricing by Contractor. This action may be preceded by communications

between Contractor, A/E and ODR concerning the need and nature of the change, but such communications shall not constitute a basis for beginning the proposed Work by Contractor. Except for emergency conditions described below, approval of Contractor's cost proposal by A/E and ODR will be required for authorization to proceed with the Work being changed. Owner will not be responsible for the cost of Work changed without prior approval and Contractor may be required to remove Work so installed.

11.7.2 All proposed costs for change order Work must be supported by itemized accounting of material, equipment and associated itemized installation costs in sufficient detail, following the outline and organization of the establish Schedule of Values, to permit analysis by A/E and ODR using current estimating guides and/or practices. Photocopies of Subcontractor and vendor proposals shall be furnished unless specifically waived by ODR. Contractor shall provide written response to a change request within twenty-one (21) days of receipt.

11.7.3 Any unexpected circumstance which necessitates an immediate change in order to avoid a delay in progress of the Work may be expedited by verbal communication and authorization between Contractor and Owner, with written confirmation following within twenty-four (24) hours. A limited scope not-to-exceed estimate of cost and time will be requested prior to authorizing Work to proceed. Should the estimate be impractical for any reason, ODR may authorize the use of detailed cost records of such work to establish and confirm the actual costs and time for documentation in a formal Change Order.

11.7.4 Emergency changes to save life or property may be initiated by Contractor alone (see Section 7.3) with the claimed cost and/or time of such work to be fully documented as to necessity and detail of the reported costs and/or time.

11.7.5 The method of incorporating approved Change Orders into the parameters of the accepted Schedule of Values must be coordinated and administered in a manner acceptable to ODR.

11.8 Pricing Change Order Work. The amounts that Contractor and/or its Subcontractor adds to a Change Order for profit and overhead will also be considered by Owner before approval is given. The amounts established hereinafter are the maximums that are acceptable to Owner.

11.8.1 For Work performed by its forces, Contractor will be allowed their actual costs for materials, the total amount of wages (including benefits) paid for labor, plus the total cost of State and Federal payroll taxes and of worker's compensation and comprehensive general liability insurance, plus additional bond and builders risk insurance cost if the change results in an increase in the premium paid by Contractor. To the total of the above costs, Contractor will be allowed to add a percentage as noted below to cover overhead and profit combined. Allowable percentages for overhead and profit on any specific change shall not exceed fifteen (15) percent for the first \$10,000 of

value for self-performed work or portion thereof, ten (10) percent for the second \$10,000 of value for self-performed work or portion thereof and seven and a half (7.5) percent for any value of the self-performed work that exceeds \$20,000.

11.8.2 For subcontracted Work each affected Subcontractor shall figure its costs, overhead and profit as described above for Contractor's Work, all Subcontractor costs shall be combined, and to that total Subcontractor cost Contractor will be allowed to add a maximum mark-up of ten (10) percent for the first \$10,000 of subcontracted Work value or portion thereof, seven and half (7.5) percent for the second \$10,000 of subcontracted Work value or portion thereof, and five (5) percent for any value of the subcontracted Work exceeding \$20,000.

11.8.3 On changes involving both additions and deletions, percentages for overhead and profit will be allowed only on the net addition. Owner does not accept and will not pay for additional Contract cost identified as indirect or consequential damages.

11.8.4 For Contracts based on a Guaranteed Maximum Price (GMP), the Construction Manager-at-Risk or Design Builder shall NOT be entitled to a percentage mark-up on any Change Order Work unless the Change Order increases the Guaranteed Maximum Price.

11.9 Unilateral Change Order (ULCO). Owner may issue a written ULCO directing a change in the Work prior to reaching agreement with Contractor on the adjustment, if any, in the Contract price and/or the Contract Time.

11.9.1 Owner and Contractor shall negotiate for appropriate adjustments, as applicable, to the Contract Sum or the Contract Time arising out of a ULCO. As the changed Work is performed, Contractor shall submit its costs for such Work with its Application for Payment beginning with the next Application for Payment within thirty (30) days of the issuance of the ULCO. The Parties reserve their rights as to the disputed amount, subject to Article 15.

11.10 Final Resolution of Changes. Upon execution of a Change Order and /or a ULCO by Owner, Contractor and A/E, all costs and time issues regarding that change are final and not subject to additive adjustments.

Article 12. Project Completion and Acceptance

12.1 Closing Inspections.

12.1.1 Substantial Completion Inspection. When Contractor considers the entire Work or part thereof Substantially Complete, it shall notify ODR in writing that the Work will be ready for Substantial Completion inspection on a specific date. Contractor shall include with this notice Contractor's Punchlist to indicate that it has previously inspected all the Work associated with the request for inspection, noting items it has corrected and included all remaining

work items with date scheduled for completion or correction prior to final inspection. The failure to include any items on this list does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents. If any of the items on this list prevents the Project from being used as intended, Contractor shall not request a Substantial Completion Inspection. Owner and its representatives will review the list of items and schedule the requested inspection, or inform Contractor in writing that such an inspection is premature because the Work is not sufficiently advanced or conditions are not as represented on Contractor's list.

12.1.1.1 Prior to the Substantial Completion inspection, Contractor shall furnish a copy of its marked-up Record Documents and a preliminary copy of each instructional manual, maintenance and operating manual, parts catalog, wiring diagrams, spare parts, specified written warranties, and like publications or parts for all installed equipment, systems, and like items as described in the Contract Documents. Delivery of these items is a prerequisite for requesting the Substantial Completion inspection.

12.1.1.2 On the date requested by Contractor, or as mutually agreed upon pending the status of the Open Items List, A/E, ODR, Contractor, and other Owner representatives as determined by Owner will jointly attend the Substantial Completion inspection, which shall be conducted by ODR or their delegate. If ODR determines that the Work is Substantially Complete, ODR will issue a Certificate of Substantial Completion to be signed by A/E, Owner, and Contractor establishing the date of Substantial Completion and identifying responsibilities for security, maintenance, insurance and utilities. A/E will provide with this certificate a consolidated list of Punchlist items (the pre-final Punchlist including all items noted by the various inspecting parties) for completion prior to final inspection. This list may include items in addition to those on Contractor's Punchlist, which the inspection team deems necessary to correct or complete prior to final inspection. The failure to include any items on this list does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents. If Owner occupies the Project upon determination of Substantial Completion, Contractor shall complete all corrective Work at the convenience of Owner, without disruption to Owner's use of the Project for its intended purposes.

12.1.2 Final Inspection. Contractor shall complete the list of items identified on the pre-final Punchlist prior to requesting a final inspection. Unless otherwise specified, or otherwise agreed in writing by the parties as documented on the Certificate of Substantial Completion, Contractor shall complete and/or correct all Work within thirty (30) days of the Substantial Completion date. Upon completion of the pre-final Punchlist work, Contractor shall give written notice to ODR and A/E that the Work will be ready for final inspection on a specific date. Contractor shall accompany this notice

with a copy of the updated pre-final Punchlist indicating resolution of all items. On the date specified or as soon thereafter as is practicable, ODR, A/E and Contractor will inspect the Work. A/E will submit to Contractor a final Punchlist of open items that the inspection team requires corrected or completed before final acceptance of the Work.

- 12.1.2.1 Correct or complete all items on the final Punchlist before requesting Final Payment. Unless otherwise agreed to in writing by the parties, complete this work within seven (7) days of receiving the final Punchlist. Upon completion of the final Punchlist, notify A/E and ODR in writing stating the disposition of each final Punchlist item. A/E, Owner, and Contractor shall promptly inspect the completed items. When the final Punchlist is complete, and the Contract is fully satisfied according to the Contract Documents ODR will issue a certificate establishing the date of Final Completion. Completion of all Work is a condition precedent to Contractor's right to receive Final Payment.
- 12.1.3 Annotation. Any Certificate issued under this Article may be annotated to indicate that it is not applicable to specified portions of the Work, or that it is subject to any limitation as determined by Owner.
- 12.1.4 Purpose of Inspection. Inspection is for determining the completion of the Work, and does not relieve Contractor of its overall responsibility for completing the Work in a good and competent fashion, in compliance with the Contract. Work accepted with incomplete Punchlist items or failure of Owner or other parties to identify Work that does not comply with the Contract Documents or is defective in operation or workmanship does not constitute a waiver of Owner's rights under the Contract or relieve Contractor of its responsibility for performance or warranties.
- 12.1.5 Additional Inspections.
 - 12.1.5.1 If Owner's inspection team determines that the Work is not substantially complete at the Substantial Completion inspection, ODR or A/E will give Contractor written notice listing cause(s) of the rejection. Contractor will set a time for completion of incomplete or defective work acceptable to ODR. Contractor shall complete or correct all work so designated prior to requesting a second Substantial Completion inspection.
 - 12.1.5.2 If Owner's inspection team determines that the Work is not complete at the final inspection, ODR or A/E will give Contractor written notice listing the cause(s) of the rejection. Contractor will set a time for completion of incomplete or defective work acceptable to ODR. Contractor shall complete or correct all Work so designated prior to again requesting a final inspection.

12.1.5.3 The Contract contemplates three (3) comprehensive inspections: the Substantial Completion inspection, the Final Completion inspection, and the inspection of completed final Punchlist items. The cost to Owner of additional inspections resulting from the Work not being ready for one or more of these inspections is the responsibility of Contractor. Owner may issue a ULCO deducting these costs from Final Payment. Upon Contractor's written request, Owner will furnish documentation of any costs so deducted. Work added to the Contract by Change Order after Substantial Completion inspection is not corrective Work for purposes of determining timely completion, or assessing the cost of additional inspections.

12.1.6 Phased Completion. The Contract may provide, or Project conditions may warrant, as determined by ODR, that designated elements or parts of the Work be completed in phases. Where phased completion is required or specifically agreed to by the parties, the provisions of the Contract related to closing inspections, occupancy, and acceptance apply independently to each designated element or part of the Work. For all other purposes, unless otherwise agreed by the parties in writing, Substantial Completion of the Work as a whole is the date on which the last element or part of the Work completed receives a Substantial Completion certificate.

Final Completion of the Work as a whole is the date on which the last element or part of the Work completed receives a Final Completion certificate.

12.2 Owner's Right of Occupancy. Owner may occupy or use all or any portion of the Work following Substantial Completion, or at any earlier stage of completion. Should Owner wish to use or occupy the Work, or part thereof, prior to Substantial Completion, ODR will notify Contractor in writing and identify responsibilities for security, maintenance, insurance and utilities. Work performed on the premises by third parties on Owner's behalf does not constitute occupation or use of the Work by Owner for purposes of this Article. All Work performed by Contractor after occupancy, whether in part or in whole, shall be at the convenience of Owner so as to not disrupt Owner's use of, or access to occupied areas of the Project.

12.3 Acceptance and Payment

12.3.1 Request for Final Payment. Following the certified completion of all work, including all final Punchlist items, cleanup, and the delivery of record documents, Contractor shall submit a certified Application for Final Payment and include all sums held as retainage and forward to A/E and ODR for review and approval.

12.3.2 Final Payment Documentation. Contractor shall submit, prior to or with the Application for Final Payment, final copies of all close out documents, maintenance and operating instructions, guarantees and warranties, certificates, Record Documents and all other items required by the Contract.

Contractor shall submit evidence of return of access keys and cards, evidence of delivery to Owner of attic stock, spare parts, and other specified materials. Contractor shall submit consent of surety to Final Payment form and an affidavit that all payrolls, bills for materials and equipment, subcontracted work and other indebtedness connected with the Work, except as specifically noted, are paid, will be paid, after payment from Owner or otherwise satisfied within the period of time required by Tex. Gov't Code, Ch. 2251. Contractor shall furnish documentation establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of claims and liens arising out of the Contract. Contractor may not subsequently submit a claim on behalf of Subcontractor or vendor unless Contractor's affidavit notes that claim as an exception.

12.3.3 Architect/Engineer Approval. A/E will review a submitted Application for Final Payment promptly but in no event later than ten (10) days after its receipt. Prior to the expiration of this deadline, A/E will either: 1) return the Application for Final Payment to Contractor with corrections for action and resubmission; or 2) accept it, note their approval, and send to Owner.

12.3.4 Offsets and Deductions. Owner may deduct from the Final Payment all sums due from Contractor. If the Certificate of Final Completion notes any Work remaining, incomplete, or defects not remedied, Owner may deduct the cost of remedying such deficiencies from the Final Payment. On such deductions, Owner will identify each deduction, the amount, and the explanation of the deduction on or by the twenty-first (21st) day after Owner's receipt of an approved Application for Final Payment. Such offsets and deductions shall be incorporated via a final Change Order, including a ULCO as may be applicable.

12.3.5 Final Payment Due. Final Payment is due and payable by Owner, subject to all allowable offsets and deductions, on the thirtieth (30th) day following Owner's approval of the Application for Payment. If Contractor disputes any amount deducted by Owner, Contractor shall give notice of the dispute on or before the thirtieth (30th) day following receipt of Final Payment. Failure to do so will bar any subsequent claim for payment of amounts deducted.

12.3.6 Effect of Final Payment. Final Payment constitutes a waiver of all claims by Owner, relating to the condition of the Work except those arising from:

12.3.6.1 Faulty or defective Work appearing after Substantial Completion (latent defects);

12.3.6.2 Failure of the Work to comply with the requirements of the Contract Documents;

12.3.6.3 Terms of any warranties required by the Contract, or implied by law;
or

12.3.6.4 Claims arising from personal injury or property damage to third parties.

12.3.7 Waiver of Claims. Final payment constitutes a waiver of all claims and liens by Contractor except those specifically identified in writing and submitted to ODR prior to the application for Final Payment.

12.3.8 Effect on Warranty. Regardless of approval and issuance of Final Payment, the Contract is not deemed fully performed by Contractor and closed until the expiration of all warranty periods. Issuance of Final Payment does not alter Contractor's contractual obligations during the warranty period.

Article 13. Warranty and Guarantee

13.1 Contractor's General Warranty and Guarantee. Contractor warrants to Owner that all Work is executed in accordance with the Contract, complete in all parts and in accordance with approved practices and customs, and of the required finish and workmanship. Contractor further warrants that unless otherwise specified, all materials and equipment incorporated in the Work under the Contract are new. Owner may, at its option, agree in writing to waive any failure of the Work to conform to the Contract, and to accept a reduction in the Contract price for the cost of repair or diminution in value of the Work by reason of such defect. Absent such a written agreement, Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute and is not waived by any inspection or observation by Owner, A/E or others, by making any progress payment or final payment, by the use or occupancy of the Work or any portion thereof by Owner, at any time, or by any repair or correction of such defect made by Owner.

13.2 Warranty Period. Except as may be otherwise specified or agreed, Contractor shall repair all defects in materials, equipment, or workmanship appearing within one year from the date of Substantial Completion of the Work. If Substantial Completion occurs by phase, then the warranty period for that particular Work begins on the date of such occurrence, or as otherwise stipulated on the Certificate of Substantial Completion for the particular Work.

13.3 Limits on Warranty. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

13.3.1 Modification or improper maintenance or operation by persons other than Contractor, Subcontractors, or any other individual or entity for whom Contractor is not responsible, unless Owner is compelled to undertake maintenance or operation due to the neglect of Contractor.

13.3.2 Normal wear and tear under normal usage after acceptance of the Work by Owner.

- 13.4 Events Not Affecting Warranty. Contractor's obligation to perform and complete the Work in a good and workmanlike manner in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of defective Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
- 13.4.1 Observations by Owner and/or A/E;
 - 13.4.2 Recommendation to pay any progress or final payment by A/E;
 - 13.4.3 The issuance of a certificate of Substantial Completion or any payment by Owner to Contractor under the Contract Documents;
 - 13.4.4 Use or occupancy of the Work or any part thereof by Owner;
 - 13.4.5 Any acceptance by Owner or any failure to do so;
 - 13.4.6 Any review of a Shop Drawing or sample submittal; or
 - 13.4.7 Any inspection, test or approval by others.
- 13.5 Separate Warranties. If a particular piece of equipment or component of the Work for which the Contract requires a separate warranty is placed in continuous service before Substantial Completion, the warranty period for that equipment or component will not begin until Substantial Completion, regardless of any warranty agreements in place between suppliers and/or Subcontractors and Contractor. ODR will certify the date of service commencement in the Substantial Completion certificate.
- 13.5.1 In addition to Contractor's warranty and duty to repair, Contractor expressly assumes all warranty obligations required under the Contract for specific building components, systems and equipment.
 - 13.5.2 Contractor may satisfy any such obligation by obtaining and assigning to Owner a complying warranty from a manufacturer, supplier, or Subcontractor. Where an assigned warranty is tendered and accepted by Owner which does not fully comply with the requirements of the Contract, Contractor remains liable to Owner on all elements of the required warranty not provided by the assigned warranty.
- 13.6 Correction of Defects. Upon receipt of written notice from Owner, or any agent of Owner designated as responsible for management of the warranty period, of the discovery of a defect, Contractor shall promptly remedy the defect(s), and provide written notice to Owner and designated agent indicating action taken. In case of emergency where delay would cause serious risk of loss or damage to Owner, or if Contractor fails to remedy within thirty (30) days, or within another period agreed to in writing, Owner may correct the defect and be reimbursed the cost of remedying the defect from Contractor or its surety.

- 13.7 Certification of No Asbestos Containing Materials or Work. Contractor shall ensure compliance with the Asbestos Hazard Emergency Response Act (AHERA–40 C.F.R § 763-99(7)) from all Subcontractors and materials suppliers, and shall provide a notarized certification to Owner that all equipment and materials used in fulfillment of their Contract responsibilities are non-Asbestos Containing Building Materials (ACBM). This certification must be provided no later than Contractor’s application for Final Payment.

Article 14. Suspension and Termination

- 14.1 Suspension of Work for Cause. Owner may, at any time without prior notice, suspend all or any part of the Work, if after reasonable observation and/or investigation, Owner determines it is necessary to do so to prevent or correct any condition of the Work, which constitutes an immediate safety hazard, or which may reasonably be expected to impair the integrity, usefulness or longevity of the Work when completed.
- 14.1.1 Owner will give Contractor a written notice of suspension for cause, setting forth the reason for the suspension and identifying the Work suspended. Upon receipt of such notice, Contractor shall immediately stop the Work so identified. As soon as practicable following the issuance of such a notice, Owner will initiate and complete a further investigation of the circumstances giving rise to the suspension, and issue a written determination of the findings.
- 14.1.2 If it is confirmed that the cause was within the control of Contractor, Contractor will not be entitled to an extension of time or any compensation for delay resulting from the suspension. If the cause is determined not to have been within the control of Contractor, and the suspension has prevented Contractor from completing the Work within the Contract Time, the suspension is an excusable delay and a time extension will be granted through a Change Order.
- 14.1.3 Suspension of Work under this provision will be no longer than is reasonably necessary to remedy the conditions giving rise to the suspension.
- 14.2 Suspension of Work for Owner’s Convenience. Upon seven (7) days written notice to Contractor, Owner may at any time without breach of the Contract suspend all or any portion of the Work for a period of up to thirty (30) days for its own convenience. Owner will give Contractor a written notice of suspension for convenience, which sets forth the number of suspension days for which the Work, or any portion of it, and the date on which the suspension of Work will cease. When such a suspension prevents Contractor from completing the Work within the Contract Time, it is an excusable delay. A notice of suspension for convenience may be modified by Owner at any time on seven (7) days written notice to Contractor. If Owner suspends the Work for its convenience for more than sixty (60) consecutive days, Contractor may elect to terminate the Contract pursuant to the provisions of the Contract.

14.3 Termination by Owner for Cause.

14.3.1 Upon written notice to Contractor and its surety, Owner may, without prejudice to any right or remedy, terminate the Contract and take possession of the Site and of all materials, equipment, tools, construction equipment, and machinery thereon owned by Contractor under any of the following circumstances:

14.3.1.1 Persistent or repeated failure or refusal, except during complete or partial suspensions of work authorized under the Contract, to supply enough properly skilled workmen or proper materials;

14.3.1.2 Persistent disregard of laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, including ODR;

14.3.1.3 Persistent failure to prosecute the Work in accordance with the Contract, and to ensure its completion within the time, or any approved extension thereof, specified in the Contract;

14.3.1.4 Failure to remedy defective work condemned by ODR;

14.3.1.5 Failure to pay Subcontractors, laborers, and material suppliers pursuant to Tex. Gov't Code, Ch. 2251;

14.3.1.6 Persistent endangerment to the safety of labor or of the Work;

14.3.1.7 Failure to supply or maintain statutory bonds or to maintain required insurance, pursuant to the Contract;

14.3.1.8 Any material breach of the Contract; or

14.3.1.9 Contractor's insolvency, bankruptcy, or demonstrated financial inability to perform the Work.

14.3.2 Failure by Owner to exercise the right to terminate in any instance is not a waiver of the right to do so in any other instance.

14.3.3 Should Owner decide to terminate the Contract under the provisions of Section 14.3, it will provide to Contractor and its surety thirty (30) days prior written notice.

14.3.4 Should Contractor or its surety, after having received notice of termination, demonstrate to the satisfaction of Owner that Contractor or its surety are proceeding to correct such default with diligence and promptness, upon which the notice of termination was based, the notice of termination may be rescinded in writing by Owner. If so rescinded, the Work may continue without an extension of time.

14.3.5 If Contractor or its surety fails, after written notice from Owner to commence and continue correction of such default with diligence and promptness to the satisfaction of Owner within thirty (30) days following receipt of notice, Owner may arrange for completion of the Work and deduct the cost of completion from the unpaid Contract Sum.

14.3.5.1 This amount includes the cost of additional Owner costs such as A/E services, other consultants, and contract administration.

14.3.5.2 Owner will make no further payment to Contractor or its surety unless the costs to complete the Work are less than the Contract balance, then the difference shall be paid to Contractor or its surety. If such costs exceed the unpaid balance, Contractor or its surety will pay the difference to Owner.

14.3.5.3 This obligation for payment survives the termination of the Contract.

14.3.5.4 Owner reserves the right in termination for cause to take assignment of all the Contracts between Contractor and its Subcontractors, vendors, and suppliers. ODR will promptly notify Contractor of the contracts Owner elects to assume. Upon receipt of such notice, Contractor shall promptly take all steps necessary to effect such assignment.

14.4 Conversion to Termination for Convenience. In the event that any termination of Contractor for cause under Section 14.3 is later determined to have been improper, the termination shall automatically convert to a termination for convenience under Section 14.5 and Contractor's recovery for termination shall be strictly limited to the payments allowable under Section 14.5.

14.5 Termination for Convenience of Owner. Owner reserves the right, without breach, to terminate the Contract prior to, or during the performance of the Work, for any reason. Upon such an occurrence, the following shall apply:

14.5.1 Owner will immediately notify Contractor and A/E in writing, specifying the reason for and the effective date of the Contract termination. Such notice may also contain instructions necessary for the protection, storage or decommissioning of incomplete work or systems, and for safety.

14.5.2 Upon receipt of the notice of termination, Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due at that point in the Contract:

14.5.2.1 Stop all work.

14.5.2.2 Place no further subcontracts or orders for materials or services.

14.5.2.3 Terminate all subcontracts for convenience.

14.5.2.4 Cancel all materials and equipment orders as applicable.

14.5.2.5 Take action that is necessary to protect and preserve all property related to the Contract which is in the possession of Contractor.

14.5.3 When the Contract is terminated for Owner's convenience, Contractor may recover from Owner payment for all Work executed. Contractor may not claim lost profits on other work or lost business opportunities.

14.6 Termination By Contractor. If the Work is stopped for a period of ninety (90) days under an order of any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of Contractor or Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with Contractor, then Contractor may, upon thirty (30) additional days written notice to ODR, terminate the Contract and recover from Owner payment for all Work executed, but not lost profits on other work or lost business opportunities. If the cause of the Work stoppage is removed prior to the end of the thirty (30) day notice period, Contractor may not terminate the Contract.

14.7 Settlement on Termination. When the Contract is terminated for any reason, at any time prior to one hundred eighty (180) days after the effective date of termination, Contractor shall submit a final termination settlement proposal to Owner based upon recoverable costs as provided under the Contract. If Contractor fails to submit the proposal within the time allowed, Owner may determine the amount due to Contractor because of the termination and pay the determined amount to Contractor.

Article 15. Dispute Resolution

15.1 Unresolved Contractor Disputes. The dispute resolution process provided for in Tex. Gov't Code, Ch. 2260 or Tex. Civ. Prac. & Rem. Code, Ch. 114, shall be used by Contractor to attempt to resolve any claim for breach of Contract made by Contractor that is not resolved under procedures described throughout the Uniform General Conditions, Supplementary Conditions, or Special Conditions of the Contract.

15.2 Alternative Dispute Resolution Process. Owner may establish a dispute resolution process to be utilized in advance of that outlined in Tex. Gov't Code, Ch. 2260 or Tex. Civ. Prac. & Rem. Code, Ch. 114.

15.3 Nothing herein shall hinder, prevent, or be construed as a waiver of Owner's right to seek redress on any disputed matter in a court of competent jurisdiction.

15.4 Nothing herein shall waive or be construed as a waiver of the State's sovereign immunity.

Article 16. Miscellaneous

- 16.1 Supplementary General and Special Conditions. When the Work contemplated by Owner is of such a character that the foregoing Uniform General Conditions of the Contract cannot adequately cover necessary and additional contractual relationships, the Contract may include Supplementary General and Special Conditions as described below:
- 16.1.1 Supplementary General Conditions may describe the standard procedures and requirements of contract administration followed by a contracting agency of the State. Supplementary General Conditions may expand upon matters covered by the Uniform General Conditions, where necessary, provided the expansion does not weaken the character or intent of the Uniform General Conditions. Supplementary General Conditions are of such a character that it is to be anticipated that a contracting agency of the State will normally use the same, or similar, conditions to supplement each of its several projects.
- 16.1.2 Special Conditions shall relate to a particular Project and be unique to that Project but shall not weaken the character or intent of the Uniform General Conditions.
- 16.2 Federally Funded Projects. On Federally funded projects, Owner may waive, suspend or modify any Article in these Uniform General Conditions which conflicts with any Federal statute, rule, regulation or procedure, where such waiver, suspension or modification is essential to receipt by Owner of such Federal funds for the Project. In the case of any Project wholly financed by Federal funds, any standards required by the enabling Federal statute, or any Federal rules, regulations or procedures adopted pursuant thereto, shall be controlling.
- 16.3 Internet-based Project Management Systems. At its option, Owner may administer its design and construction management through an Internet-based management system. In such cases, Contractor shall conduct communication through this media and perform all Project related functions utilizing this database system. This includes correspondence, submittals, Requests for Information, vouchers or payment requests and processing, amendment, Change Orders and other administrative activities.
- 16.3.1 Accessibility and Administration.
- 16.3.1.1 When used, Owner will make the software accessible via the Internet to all Project team members.
- 16.3.1.2 Owner shall administer the software.
- 16.3.2 Training. When used, Owner shall provide training to the Project team members.
- 16.4 Administrative Inspections and Audits. Contractor agrees that all relevant records related to this Contract or any work product under this Contract, including practices of its Subcontractors, shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location of Contractor where such records

may be found, with or without notice by the Texas State Auditor's Office ("SAO"), the contracting agency or its contracted examiners, or the Office of the Texas Attorney General, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives. All Subcontracts shall reflect the requirements of this section. In addition, pursuant to Tex. Gov't Code § 2262.003 the SAO may conduct an audit or investigation of any entity receiving funds under this Contract, including direct payments to Contractor and indirect payments under a Subcontract to this Contract; acceptance of such monies acts as acceptance of SAO authority, under legislative audit committee direction, to audit and investigate related to those funds and the entity subject to the audit or investigation must provide SAO with access to any information SAO considers relevant to the scope of the audit or investigation.

End of Uniform General Conditions

**2018 SUPPLEMENTARY GENERAL CONDITIONS
TO THE STATE OF TEXAS 2015 EDITION OF THE UNIFORM GENERAL
CONDITIONS FOR CONTRACTS**

The following Supplementary General Conditions amend and/or supplement the 2015 edition of the Uniform General Conditions for Construction Contracts and, at GLO's sole discretion, provides for bonding per GMP.

Article 5. Bonds and Insurance

5.1. Construction Bonds.

Subsection 5.1.1.1 is supplemented to modify 5.1.1.1, as follows:

A Performance bond is required if the Contract Sum is in excess of \$100,000. The performance bond is solely for the protection of Owner. Except for Construction Manager-at-Risk Contracts where, in Owner's sole discretion and determination, a Performance Bond is acceptable in the amount of the guaranteed maximum price (GMP), the performance bond is to be for the Contract Sum to guarantee the faithful performance of the Work in accordance with the Contract Documents. The form of the bond shall be approved by the Office of the Attorney General of Texas. The performance bond shall be effective through Contractor's warranty period.

Subsection 5.1.1.2 is supplemented to modify 5.1.1.2, as follows:

A Payment bond is required if the Contract price is in excess of \$25,000. Except for Construction Manager-at-Risk Contracts where, in Owner's sole discretion and determination, a Payment Bond is acceptable in the amount of the guaranteed maximum price (GMP), the payment bond is to be for the Contract Sum and is payable to Owner solely for the protection and use of payment bond beneficiaries. The form of the bond shall be approved by the Office of the Attorney General of Texas.

5.2 Insurance Requirements.

Subsection 5.2.4 is supplemented to add the following new paragraphs:

- 5.2.4.1 Contractor shall deliver to Owner true and complete copies of the General Contractor's certificates prior to the issuance of any Notice to Proceed.
- 5.2.4.2 Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

5.2.4.3 The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.2.4.4 The insurance coverage and limits established in the Uniform General Conditions, Supplementary General Conditions, or Special Conditions shall not be interpreted as any representation or warranty that the insurance coverage and limits necessarily will be adequate to protect Contractor.

Article 2. Wage Rates and Other Laws Governing Construction

Add Section 2.7 as follows:

2.7 Buy America Requirements for Iron and Steel Used in Construction. In accordance with Texas Government Code 2252, Section 2252.202, all iron or steel products (i.e., rolled structural shapes including wide flange beams and columns, angles, bars, plates, sheets, hollow structural sections, pipe, etc.) shall be produced, manufactured and fabricated in the United States.

End of Supplementary General Conditions

"General Decision Number: TX20240062 01/12/2024

Superseded General Decision Number: TX20230062

State: Texas

Construction Type: Heavy

County: Galveston County in Texas.

HEAVY CONSTRUCTION PROJECTS Including Water and Sewer Lines
(Does Not Include Flood Control)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	01/12/2024

* SFTX0669-001 01/01/2024

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 34.60	23.88

 * SUTX2005-021 08/05/2005

HEAVY Including Water and Sewer Lines (Excluding Flood Control)

	Rates	Fringes
Carpenter.....	\$ 14.38 **	
Cement mason/concrete finisher.....	\$ 11.37 **	1.13
Electrician.....	\$ 18.40	1.34
FORM BUILDER/FORM SETTER.....	\$ 13.35 **	1.17
IRONWORKER, REINFORCING.....	\$ 11.29 **	
Laborers:		
Common.....	\$ 10.70 **	
Landscape.....	\$ 7.35 **	
Mason Tender Cement.....	\$ 9.96 **	
Pipelayer.....	\$ 10.07 **	
PIPEFITTER.....	\$ 17.00 **	0.04
Power equipment operators:		
Excavator.....	\$ 16.74 **	
Backhoe.....	\$ 13.25 **	
Bulldozer.....	\$ 14.00 **	
Crane.....	\$ 14.91 **	0.58
Front End Loader.....	\$ 11.75 **	0.92
Grader.....	\$ 12.20 **	1.48
Tractor.....	\$ 12.38 **	1.51
TRUCK DRIVER.....	\$ 12.28 **	0.98

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

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 ** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours

they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

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

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the

wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

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

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

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

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

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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

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

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

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

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END OF GENERAL DECISION"

Wage Rate Complaint Information Requirements

The following information is required for determining whether good cause exist to believe that a violation of Article 5159a, Vernon's Texas Civil Statutes, has been committed.

1. Certified Payroll

A copy of the payroll, supported by an affidavit from the Contractor or relevant Subcontractor, certifying that the payroll is accurate and that the amounts shown were paid to the individuals indicated.

2. Worker's Name

The name of each worker shall be printed and easily readable. It shall be located with the hours worked and amounts paid to them.

3. Classification of Individual Employee

The classification of the individual employee shall be as shown on the Wage Rate Determination, located in the project specification.

4. Hourly Rate to be Paid

The minimum amount shown on the Wage Rate Determination, as shown in the project specifications.

5. Actual Hourly Rate

The actual hourly rate paid to the employee.

6. Hours and Days Worked

Indicate the hours and days worked, (i.e., 6 hours, 6-1-99.)

7. Amounts Paid and Pay Period

Indicate the amounts paid during the pay period and identify what the pay period was, (i.e., 6 hours at \$10 = \$60 for 6-1-99 thru 6-5-99.)

8. Insurance, Vacation and Retirement

- a. If insurance, vacation and/or retirement are removed from the employee's pay, this needs to be indicated. A signed statement, from the employee, giving the company permission to remove these moneys from the employee's pay needs to be included.
- b. Show how much removing these moneys from the employee's pay reduced the hourly rate, (i.e., Insurance, Vacation and Retirement = \$.25 per hour, \$10.00 minus \$.25 = \$9.75 per hour.)

01000 SPECIAL CONDITIONS

1.00 GENERAL

1.01 DESCRIPTION OF WORK

- A. Refer to Section 01010, Summary of Work.

1.02 OWNER AND STAKEHOLDER REPRESENTATIVES

- A. Contractor shall cooperate and coordinate with all Owner and Stakeholder representatives.
- B. Owner – The Owner of this project is the State of Texas and the Texas General Land Office (GLO) is the “responsible entity” per article 1.28
- C. Co-Owner – The city of Jamaica Beach
- D. Owner’s Designated Representative (ODR)

- 1. The following is the ODR:

Carver Wray
Email: Carver.Wray@glo.texas.gov
Phone: 512-463-1864

- 2. In accordance with Document 00 72 00 – Uniform General Conditions, the ODR is the only party authorized to direct changes to the scope, cost, or time of the Contract.

- E. Owner’s Architect/Engineer (A/E) Representative (aka, “Engineer”)

- 1. The project has been designed by the following A/E:

Lockwood, Andrews & Newnam, Inc.
Scott Harris, P.E
Email: SMHarris@lan-inc.com
Phone: 361-792-7225

- 2. The A/E will perform the contract administration responsibilities indicated in the Contract Documents in accordance with Document 00 72 00 – Uniform General Conditions and Document 00 73 00 – Supplementary General Conditions. The A/E’s contract administration responsibilities include review and response to Submittals and RFIs, review of material test reports, attend periodic progress meetings, perform periodic site observation visits, attend substantial and final completion inspections, and prepare list of punch list items, and prepare certificates of substantial and final completion.
- 3. Contractor shall direct Submittals and Requests for Information (RFI) to the A/E.

F. Testing Laboratory and Inspection Representative

1. It is the contractor's responsibility to provide an independent accredited material testing laboratory acceptable to the Owner for quality assurance testing of the beach sand for compliance with the gradation, moisture content and compaction requirements in accordance with Document 00 72 00 – Uniform General Conditions and Contract Documents.
2. The Owner will provide a representative to perform periodic inspections. Other Stakeholders (ex., USACE) may also perform periodic inspections.

G. Stakeholder Representatives

1. Representatives from other stakeholders (ex., USACE, City of Jamaica Beach, U.S. Fish and Wildlife Service, etc.) may randomly inspect the project site, borrow site(s) and haul routes. Contractor shall fully cooperate and provide safe access to these stakeholders.
2. Stakeholder representatives may include, but not be limited to, inspectors, biologists, wildlife monitors, City officials, state game wardens, etc.

1.03 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including Uniform General Conditions, Supplementary General Conditions, and Division I specification sections apply to work of this section.

1.04 EXAMINATION OF SITE

- A. Respondents shall visit the beach nourishment project site and borrow site(s) and be thoroughly familiar with site conditions, haul route and local conditions prior to submitting a Proposal. Failure to give proper consideration to these conditions when preparing proposals will not constitute grounds for additional compensation.

1.05 INTENT OF THE CONTRACT DOCUMENTS

- A. The intent of the Contract Documents is to include all of the work for the Contract price and within the Contract time. Contract Documents are to be considered as cooperative. All work not specified and/or not shown on the drawings but which is necessary for the completion and/or functioning and operation of the project, shall be understood and implied as part of the Contract to be performed by the Contractor for the Contract price. The Contractor shall execute such work in the same manner and with the same character of material as other portions of the Contract without extra compensation.
- B. It is the intention of the Contract Documents to call for finished work, tested, and ready for operation.
1. Any apparatus, material or work described in the Contract Documents and any incidental accessories necessary to make the work complete in all respects and

ready for operation (even though not particularly specified) shall be furnished, delivered, and installed by the Contractor without additional expense to the Owner.

2. Minor details not usually shown or specified but necessary for proper installation and operation are included in the work just as if herein specified or shown.
- C. The agreement and each of the Contract Documents are complementary; they shall be interpreted so that what is called for by one shall be as binding as if called for by all. Should the Contractor observe conflicts in or omission from the Contract Documents, Contractor shall bring them to the Engineer's attention for decision, inclusion, and revision as soon as possible after originally observed. Regardless, such work shall be performed and furnished by the Contractor in accordance with accepted construction industry practices. In the event of duplications or conflicts in the Contract Documents after the Contract has been executed, the greater quality and/or the most expensive method of work, materials and equipment shall be construed as the requirement, with a credit for all costs saved accruing to the Owner in the event the least expensive method of work is directed. A duplication of work is not intended by the Contract documents and any duplication specified shall not become a basis for extra cost to the Owner. Technical specifications shall take precedence over conflicting drawings. Explanatory notes on the drawings shall take precedence over conflicting drawn-out indications. Large-scale details will take precedence over small-scale drawings and figured dimensions to scale measurements. Where figures are lacking, scale measurements may be followed, but in all cases the measurements are to be checked from the work in place. Should variations be found, they must be referred to the Engineer for instructions prior to proceeding with the work. In the event of conflict between the Special Conditions and the Uniform General Conditions, the Uniform General Conditions shall take priority over the Special Conditions in resolving such conflicts.
 - D. The drawings consist of all project drawings and any drawings issued by addenda. In all cases, measured dimensions taken at the site shall take precedence over scale dimensions.

1.06 PERMITS AND LAWS

- A. The Contractor shall comply with all federal, state, and municipal laws, rules regulations, and ordinances applicable to the work of this Contract, and shall obtain and pay for all permits required in connection with the execution of the work. The Owner shall be furnished with certified copies of these permits. Refer to Section 01010, Summary of Work, for Owner-obtained permits.
- B. If such laws, rules, regulations, or ordinances conflict with the Contract Documents, then such laws, rules, regulations, or ordinances shall govern instead of the Contract Documents, except in such cases where the Contract Documents exceed them in quality of materials or labor, then the Contract Documents shall be followed.
- C. Refer to Article 5 of the Uniform General Conditions for insurance requirements. Insurance

requirements are independent of all other obligations of the Contractor pursuant to these contract documents and apply whether or not required by any provision of the contract documents. Contractor shall cease work immediately upon the expiration of any insurance coverage required by the contract documents.

1.07 SUBMITTALS

- A. Pre-Construction Submittals: Article 8.3 of the Uniform General Conditions provide definite times for the Contractor to submit certain lists, qualifications, price breakdowns and schedules relating to Contract administration including but not limited to the following:
1. Submittals required within twenty-one (21) calendar days of the Notice to Proceed:
 - a. List of name and qualifications of the person designated as project superintendent.
 - b. List of all subcontractors and major material/equipment suppliers that Contractor and Contractor's major subcontractors propose to use. This list shall include correct names, mailing addresses and phone numbers.
 - c. List of names and titles of Contractor's representatives authorized to sign contractual documents and payment requisitions.
 - d. List of names, qualifications and licenses of all licensed crafts required by the Contract documents.
 - e. Contract Price Breakdown (Schedule of Values), itemizing material and labor for each classification of work.
 - f. Work Progress Schedule of Contractor's estimated progress schedule for work tasks in relation to the entire project. Schedule shall be in bar chart form that indicates all work tasks and differentiates critical path work tasks from non-critical path tasks showing the beginning and ending dates for each critical and non-critical path work task.
- B. General: All submittals shall be transmitted to the Engineer in accordance with the following:
1. The number of copies of submittals required for each item shall be no less than an electronic copy of the original, plus the number of additional copies that the Contractor desires for his own use.
 2. The Contractor must double-check and sign all submittals before forwarding them for review and action by the Engineer.
 3. The Engineer will review the submittal data. If there are no exceptions taken to the submittal, the original will be retained by the Engineer. All remaining copies will be returned to the Contractor. The Contractor must keep one (1) copy at the jobsite at

all times.

4. If further action is required by the Contractor, the Engineer will retain one (1) copy of the submittal data and return all remaining copies to the Contractor.
5. Any and all costs, direct or indirect, incurred by the Engineer in reviewing submittals in excess of three (3) times will be charged to the Contractor and deducted from the total price for the work.
6. The Engineer's approval of shop drawings and/or any aspects of the work shall not act to transfer Contractor's responsibility for, nor relieve Contractor from the performance of any of Contractor's duties set forth in the Contract documents.

1.08 QUALITY ASSURANCE

- A. The Owner and Engineer will periodically observe the construction progress, procedures, and materials of the Contractor. The Contractor shall offer full cooperation to facilitate these observation activities, and shall be responsive to questions regarding methods, equipment, materials, and intentions in pursuing the work or any particular thereof. Such observation by the Owner and/or Engineer is for the express purpose of verifying compliance by the Contractor with the Contract Documents and shall not be construed as construction supervision nor indication of approval of the manner or location in which the work is being performed as being a safe practice or place. The safety of the workers on the site is the responsibility of the Contractor. By entering the site, the Contractor and its employees relieve the Owner and Engineer of any responsibility for their safety and accept complete responsibility for any unsafe acts or procedures that may cause them harm.
- B. The Contractor shall perform all quality control testing necessary to assist in the work and satisfy the submittal requirements listed under applicable specification sections.
 1. All samples for quality control testing shall be obtained by an independent testing laboratory retained by the Contractor. Samples shall not be collected by the Contractor and delivered to the laboratory.
 2. The cost of all quality control testing shall be paid by the Contractor.
 3. The Contractor shall not retain the same independent testing laboratory utilized by the Owner for its quality assurance testing program.
- C. If the Owner or Engineer rejects work and/or materials incorporated into the work, Contractor shall bear all expenses associated with testing to prove compliance with the Contract Documents, including but not limited to engineering expenses associated with such testing. Any and all such expenses that are paid directly by Owner will be deducted or withheld from subsequent payment(s) to the Contractor.

1.09 CONTRACT COMPLETION TIME

- A. Contract Period

1. Claims for extension of time shall be made in accordance with the provisions in the TGLO's Uniform General Conditions Article 9.

B. Time for Completion

1. The Contractor shall complete all physical contract work by the date stated in the contract provisions and technical specification Section 01310, Project Schedule. Every day will be counted as a calendar day regardless of holidays, weather, strikes and channel conditions.
2. Contract time shall begin on the date designated in the Notice-to-Proceed issued by the Owner and the Contractor is required to complete the work in the time that is stated in the contract. Execution of specific work elements will be dependent on the number of calendar days referenced to the start of contract time.
3. The Engineer will give the Contractor written notice of the physical completion date for all work the contract requires. That date shall constitute the physical completion date of the contract but shall not imply Owner's acceptance of the work or the contract.
4. The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor.
5. Construction activities are limited to specific days and times. See Section 01010 Summary of Work.

C. Progress Schedule

1. The Contractor shall submit one (1) electronic copy of the progress schedule (total working days) in accordance with the Uniform General Conditions. This schedule and any supplemental schedule shall show: (1) physical completion of all work within the specified contract time, (2) the proposed order of work, and (3) projected starting and completion times for major phases of the work and for the total project including proposal items. The schedule shall be developed by a critical path method. The Contractor shall provide sufficient material, equipment, and labor to meet the completion times in this schedule.
2. The Owner allocates its resources to a contract based on the total time allowed in the contract. The Owner will accept a progress schedule indicating an early physical completion date but cannot guarantee the Owner's resources will be available to meet the accelerated schedule. No additional compensation will be allowed if the Contractor is not able to meet their accelerated schedule due to the unavailability of Owner's resources or for other reasons beyond the Owner's control.
3. The Contractor shall submit supplemental progress schedules when requested by the Engineer or as required by any provision of the contract. These supplemental schedules shall reflect any changes in the proposed order of the work, any construction delays, or other conditions that may affect the progress of the work.

The Contractor shall provide the Engineer with the supplemental progress schedules within ten calendar days of receiving written notice of the request.

4. The original and all supplemental progress schedules shall not conflict with any time and order-of-work requirement in the contract.
5. If the Engineer deems the original or any necessary supplemental progress schedule does not provide the information required in this section, the Owner may withhold progress payments until a schedule containing the required information has been submitted by the Contractor and approved by the Engineer.
6. The Engineer's approval of any schedule shall not transfer any of the Contractor's responsibilities to the Owner. The Contractor alone shall remain responsible for adjusting forces, equipment, and work schedules to ensure completion of the work within the time(s) specified in the contract.
7. For progress payment requirements refer to Article 10, Uniform General Conditions, Section 10.2

D. Prosecution of the Work

1. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

2.00 PRODUCTS

2.01 CONSTRUCTION MATERIALS

- A. **Materials:** All materials shall be new and of the quality specified. Materials shall be free from defects. Where manufacturer's names are mentioned in the specifications, it has been done in order to establish a standard of quality and construction, not to preclude the use of equal or superior materials or products of other manufacturers. However, substitutions must have Engineer's prior approval. Unless otherwise indicated in the specifications or drawings, equipment and material shall be installed in accordance with the manufacturer's recommendations and shall include such tests as manufacturer recommends.
- B. **Storage and Protection of Materials:** All materials shall be suitably stored to be protected from damage. Watertight storage facilities of suitable size with floors raised above the ground shall be provided for all materials subject to damage from exposure to the weather. Other materials shall be stored on blocks off the ground. Materials shall be stored to permit easy access for inspection and identification. Any material, which has deteriorated, become damaged or otherwise unfit for use shall not be used in the work (as judged by Engineer). Upon completion of all work, or when directed, the Contractor shall remove storage facilities from the site.

3.00 EXECUTION

3.01 CONSTRUCTION SITE AND JOB CONDITIONS

- A. Supervision: The Contractor's Superintendent shall be on site at all times that work is in progress. The Contractor shall not allow any unsafe or unsanitary conditions to develop as a result of Contractor's operations.
- B. Site Maintenance: The Contractor shall not allow trash or debris to accumulate on the site. At the end of the Contract, Contractor shall clean the entire area of any litter resulting from Contractor's operations. The Contractor shall maintain the premises as clean and presentable as good construction practices will allow at all times. At the end of the Contract, the Contractor shall clean existing paved roadways of dust, dirt, concrete, and other deleterious materials deposited as a result of the construction activities. This shall include using pressurized water and sweeper trucks to clean the roadways.
- C. Utilities: Water and electrical power will not be furnished by the Owner. Any temporary connections or appurtenances shall be provided by the Contractor at no cost to the Owner and removed from the premises at the conclusion of the Contract.
- D. Temporary Toilets: The Contractor shall provide and maintain in neat, sanitary condition toilets and other necessary accommodations for employees' use to comply with the regulations of the State Department of Health or other jurisdictions.
- E. Fire Protection: The Contractor shall take stringent precautions against fire. Open fires are not allowed unless approved in writing by Owner.
- F. Construction activities at the project site are limited to specific days and times. See Summary of Work Section 01010. The Contractor shall be aware that the Jamaica Beach has greater public use on the weekends than during the weekdays.

3.02 PROTECTION OF PUBLIC

- A. The Contractor shall be responsible for public safety at the construction site. All temporary fencing, barricades, warning lights, signs, and flagmen shall be provided and maintained by Contractor as needed. The Contractor shall maintain security of the construction site.

3.03 SITE PHYSICAL DATA

- A. Information furnished below is for the Contractor's review. However, it is expressly understood that the Owner and Engineer are not responsible for any interpretation or conclusion drawn therefrom by the Contractor. The Owner and Engineer also are not responsible for any lack of information herein pertaining to physical conditions at the site. The Contractor shall make every effort possible to familiarize himself with and research the conditions to be expected at the site.
 - 1. Tidal Conditions: Under ordinary conditions, the mean tidal range is about .87 ft. However, the height of tide is largely dependent on the force, direction, and duration of the wind. Strong southerly winds may raise the water surface by as much as, and in some cases more than, 1.5 feet.

2. Marine Conditions: In addition to tidal fluctuations and current velocities mentioned herein, the water at the project site may at times be rough as a result of wind waves. Again, the contractor should familiarize himself with the extreme conditions that might be expected throughout the duration of this project. In addition, tropical storms and hurricanes along the coast typically occur during the period June to November. See Technical Specification Section 01500 for additional information.
3. Groundwater: Subsurface groundwater conditions and elevations may change. Changes in groundwater elevations shall not be just cause for increased compensation.

3.04 PROTECTION OF SITE

- A. The Contractor is notified that construction will occur adjacent to active public recreational facilities, private property, and environmentally sensitive areas. The Contractor is hereby notified that adverse working conditions may exist, and the necessary allowances and precautions shall be made to avoid damaging public and private property and sensitive vegetation. Unauthorized damage to any existing utilities, building facilities, structures, or plant life shall be repaired by the Contractor at no expense to the Owner.
- B. Utility locations have not been field verified. It shall be the Contractor's responsibility to verify the condition of existing utilities and locations thereof prior to proposal.
- C. The Contractor shall protect all vegetation adjacent to and within the construction site. If Contractor's work will require removal of vegetation, the Contractor shall obtain approval of Owner prior to removal. The Contractor shall be held liable for removal of and/or damage to vegetation without Owner's prior approval.
- D. The drawings show the locations of all known surface structures pertinent to the work. The locations of surface and subsurface features shown on the drawings are not exact. In the case of underground or underwater obstructions such as existing water, sewer, storm sewer, gas, electrical lines, piling, debris, or partial structures that are not shown on the drawings, their location is not guaranteed. The Owner assumes no responsibility for failure to show any or all these structures on the drawings or to show them in their exact location. Failure to show these in the Contract Documents will not be considered sufficient basis for claims for additional compensation for extra work in any manner whatsoever, unless the obstruction encountered is such as to necessitate substantial changes in the lines or grades, or requires the building of special work for which no provision is made. It is assumed that as elsewhere provided the Contractor has thoroughly inspected the site, is informed as to the correct location of surface structures, has included the cost of such incidental work in the price proposal, and has considered and allowed for all foreseeable incidental work due to variable subsurface conditions, whether such conditions and such work are fully and properly described on the drawings or not. Minor changes and variations of the work specified and shown on the drawings shall be expected by the Contractor and allowed for as incidental to the satisfactory completion of a whole and functioning work or improvement.

3.05 MISPLACED MATERIAL

- A. Should the Contractor, during the progress of the construction, lose, dump, throw overboard, sink, or misplace any material, plant, machinery or appliance, which in the opinion of the Engineer may be dangerous to or obstruct navigation, the Contractor shall recover and remove the same with the utmost dispatch. The Contractor shall give immediate notice, with description and location of such obstructions, until the same are removed. 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 his 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 Harbors Act of March 3, 1899 (33 U.S.C 410 et seq).

3.06 LAYOUT OF WORK AND SURVEYS

- A. The Contractor, at Contractor's expense, shall be responsible for establishing base lines, and benchmarks if applicable, for the limits of the project. The Contractor shall also be responsible for all measurements that may be required for the execution of the work to the location and limit marks prescribed in the specifications or on the drawings. It is Contractor's responsibility to maintain and preserve all stakes and other marks if Contractor destroys such marks through Contractor's negligence prior to their authorized removal.

3.07 ARCHEOLOGICAL MONITORING

- A. The Antiquities Code of Texas, established by Article 6145-9 of Vernon's Texas Civil Statutes, applies to this project. Violations of the Code are subject to penalties as provided by the Code. Copies of the Code may be obtained from the Texas Antiquities Committee, P. O. Box 12276, Austin, Texas. Any areas or items of archaeological significance shall be reported to the Texas Historical Commission and the U.S. Army Corps of Engineers Galveston District. Refer to the permit conditions in Appendix A – SWG-2020-0074 permit

3.08 UTILITIES AND SIMILAR FACILITIES

- A. The Contractor shall protect all private and public utilities from damage resulting from the work. Among others, these utilities include communication and power lines; sewer and water lines; railroad tracks and equipment; and highway lighting and signing systems
- B. The Contractor shall call the utilities underground location center for field location of utilities within the Project Site work area and any other material handling areas. If no locator service is available for the area, notice shall be provided individually to those owners of utilities known to, or suspected of, having underground facilities within the area of the construction activities.
- C. Any authorized agent of the Owner or utility owners may enter the project site to repair, rearrange, alter, or connect their equipment. The Contractor shall cooperate with such efforts and shall avoid creating delays or hindrances to those doing the work. As needed, the Contractor shall arrange to coordinate work schedules.

- D. To ease or streamline the work, the Contractor may desire to ask utility owners to move, remove, or alter their equipment in ways other than those listed in the plans or special provisions. The Contractor shall make the arrangements and pay all costs that arise from them.
- E. In some cases, the plans or technical specifications may not show all underground facilities. If the work requires these to be moved, the Engineer will provide for other forces to move them or issue a written change order requiring the Contractor to do so as provided in Article 9 of the Uniform General Conditions.
- F. All costs required to protect public and private utilities as provided in this section shall be at the Contractor's expense. When others delay the work through late removal or relocation of any utility or similar facility, the Contractor's loss of time will be adjusted by extending Contract time in keeping with the Uniform General Conditions or as otherwise stated in these Contract Documents.
- G. If the Contract provides notice that utilities will be adjusted, relocated, replaced, or constructed during the prosecution of the work, the Contractor shall carry out the work in a way that will minimize interference and delay for all forces involved. Any costs resulting from the coordination and prosecution of the work regarding utility adjustment, relocation, replacement, or construction shall be at the Contractor's expense as provided.

3.09 RECORD DRAWINGS

- A. The Contractor shall maintain on a separate set of the Contract Documents, a record of all changes made during construction. The Contractor shall be responsible for keeping these records and neatly noting with colored pencil, ink, or electronic mark ups for all changes. Progress payments will not be made to the Contractor unless such records are maintained.

END OF SECTION

01010 SUMMARY OF WORK

1.00 GENERAL

1.01 WORK INCLUDED

- A. Construct Work as described in the Contract Documents.
 - 1. Provide the materials, equipment, and incidentals required to make the Project completely and fully useable.
 - 2. Provide the labor, equipment, tools, and consumable supplies required for a complete Project.
 - 3. The Contract Documents do not indicate or describe all of the Work required to complete the Project. Additional details required for the correct installation of selected products are to be provided by the Contractor.

1.02 DESCRIPTION OF WORK

- A. Work is described in general, non-inclusive terms as:

Proposed beach nourishment of approximately 3,300 LF along the City of Jamaica Beach beachfront (29° .10'51.25"N, -94° .58'22.48" W to 29°10'50.86"N,-94°58'22.95"W) and includes an approximate 200-foot wide area which extends from the dune line of vegetation (approximate +5 foot contour) at the north limit to the approximate -1.5 foot contour seaward, totaling approximately 15.4 acres. Proposed beach nourishment will be performed in phases.

Approximately 61,000 cubic yards of beach-quality sand is anticipated for the nourishment of the beach within the project area. Beach quality sand will be obtained from Corps authorized local upland borrow site(s). Beach nourishment activities will be conducted mechanically by means of trucks, front-end loaders, bulldozers, compactors, motor graders, cranes, and/or UT/ATVs. Other equipment could include dewatering systems, pumps, generators, lighting, fuel trucks, and water trucks.

1.03 ALLOWABLE WORK HOURS

- A. The allowable work hours are Monday through Fridays, between Sunrise to Sundown, unless approved otherwise by the Owner.
- B. The allowable workdays exclude the following, unless approved otherwise by the Owner.
 - 1. Saturdays and Sundays.
 - 2. Spring Break. Contractor shall clean, secure and re-open Jamaica Beach for public use during the following spring break season.
 - a. March 10st to March 14th, for the year of 2025.
 - 3. Official City of Jamaica Beach Holidays. These Holidays shall be observed on the preceding Friday if they fall on a Saturday and on the following Monday if they fall on a Sunday.
 - a. New Year's Eve Day

- b. New Year's Day
- c. Martin Luther King Day
- d. Presidents Day
- e. Good Friday
- f. Memorial Day
- g. Juneteenth
- h. Independence Day
- i. Labor Day
- j. Thanksgiving Day
- k. Friday following Thanksgiving Day
- l. Christmas Eve
- m. Christmas Day

1.04 PERMITS

A. Owner Obtained Permits

- 1. Owner will be responsible for obtaining the following permits and will furnish the Contractor with copies of these permits. Copies of these permits are located in the Appendix.
 - a. USACE Permit No. SWG – 2020-00774

B. Contractor Obtained Permits

- 1. Contractor is responsible for obtaining any other permits and approvals (including, but not limited to, permits related to stormwater run-off) necessary for completing the Work in accordance with, but not limited to Section 0100 - Special Conditions, Paragraph 1.07 and Document 00 72 00 – Uniform General Conditions.

1.05 WORK UNDER OTHER CONTRACTS

- A. The following items of work are not included in this Contract, but may impact construction scheduling and completion:
 - 1. None
- B. In the case of a disagreement between the above list and those specified elsewhere in the Contract Documents, the Contractor is to base his Proposal on the most expensive listing.
- C. Completion of the Work described in this Contract may impact the construction and testing of the items listed above.
 - 1. Coordinate construction activities through the ODR.
 - 2. Pay claims for damages which result from the late completion of the Project or any specified Milestones.

1.06 CONSTRUCTION OF UTILITIES

- A. Contractor to pay for temporary power, including but not limited to construction cost, meter connection fees, and permits.

1.07 USE PRIOR TO FINAL COMPLETION

- A. Owner has the right to use or operate any portion of the Project that is ready for use after notifying the Contractor of its intent to do so.
- B. Conduct operations to insure the least inconvenience to the Owner, City and general public.

2.00 PRODUCTS (NOT USED)

3.00 EXECUTION (NOT USED)

END OF SECTION

01019 MOBILIZATION AND DEMOBILIZATION

1.00 GENERAL

1.01 SECTION INCLUDES

- A. Mobilization of personnel, construction equipment, facilities, materials and supplies, and their transport onto the site. Also included is preparation of submittals and setting up the Contractor's complete construction plant, field office, training, SWPPP, temporary traffic control and other construction facilities, as required for the Contractor's operation, all in adequate time for satisfactory performance of all Work under the Contract.
- B. Demobilization shall include the removal of all construction plant, SWPPP, temporary traffic control, equipment and accessories, materials, supplies, appurtenances, construction debris and the like from the job site upon completion of the Work, including completion of all restoration.

1.02 MEASUREMENT AND PAYMENT

- 1. Original Contract Price. The amount of Contract Price designated for mobilization may not be applied in computing whether or not five percent of the Original Contract Price has been obtained.
- 2. Mobilization payments will be subject to retainage amounts stipulated in the Uniform General Conditions.
- 3. Payment
 - a. Mobilization – Payment for sixty percent (60 %) of the Mobilization and Demobilization pay item will be paid upon Contractor completing the following.
 - 1) Submittal and approval of baseline schedule.
 - 2) Submittal and approval of proposed site utilization plans for both beach nourishment and borrow sites, including details on any proposed dewatering systems at borrow sites.
 - 3) Submittal and approval of proposed traffic control plans for both beach nourishment and borrow sites, and haul routes.
 - 4) Submittal and approval of SWPPP Best Management Practices for both beach nourishment and borrow sites.
 - 5) Submittal and approval of proposed work plan for beach nourishment.
 - 6) Submittal and approval of material test reports confirming material complies with the requirements for beach quality sand (e.g., grain size, color, composition and mineralogy).
 - 7) Contractor completion of required wildlife training.
 - b. Demobilization – Payment for the remaining forty percent (40 %) of the Mobilization and Demobilization pay item will be paid upon removal of, but not limited to, the temporary SWPPP, traffic control devices and signage, equipment, stockpiles, dewatering systems, etc.

2.00 PRODUCTS -Not Used

3.00 EXECUTION -Not Used

END OF SECTION

01090 DEFINITIONS AND STANDARDS

1.00 GENERAL

1.1. DESCRIPTION

- A. This section specifies requirements for compliance with governing regulations, codes, and standards.
- B. Requirements include obtaining permits, licenses, inspections, releases, and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes, and standards.

1.2. DEFINITIONS

Definitions contained in this section are not necessarily complete but are general to the extent that they are not defined more explicitly elsewhere in the Contract Documents.

- A. Texas General Land Office is the "Owner" and "State Funding Sponsor". "Co-Owner" refers to the City of Jamaica Beach". "Engineer" refers to LAN Inc.
- B. "OAR" refers to the Owners Authorized Representative
- C. "Indicated" refers to graphic representations, notes or schedules on the drawings, or other paragraphs or schedules in specifications, and similar requirements in Contract Documents.
- D. Terms such as "shown", "noted", and "specified" are used to help locate the reference; no limitation on location is intended except as specifically noted.
- E. Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the Engineer", "requested by the Engineer", and similar phrases. However, no implied meaning shall be interpreted to extend the Engineer's responsibility into the Contractor's area of construction supervision.
- F. The term "approved", where used in conjunction with the Engineer's action on the Contractor's submittals, applications, and requests, is limited to the responsibilities and duties of the Engineer stated in the General Conditions and Special Conditions. Such approval shall not release the Contractor from responsibility to fulfill contract document requirements unless otherwise provided in the Contract Documents.
- G. The term "Regulations" includes laws, statutes, ordinances, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the Work, whether they are lawfully imposed by authorities having jurisdiction or not.
- H. The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations".
- I. The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations".
- J. The term "provide" means "to furnish and install, complete and ready for the intended use".

- K. An "installer" is an entity engaged by the Contractor, either as an employee, subcontractor, or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
- L. A "Project site" is the space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other construction as part of the project. The extent of the project site is shown on the drawings.
- M. A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the project site or elsewhere, and to report on and, if required, interpret results of those inspections or tests.
- N. The terms "Drawings" and "Contract Drawings" are used to mean "Construction Plans" or "Plans". The terms are used interchangeably.

1.3. INDUSTRY STANDARDS

- A. Applicability of Standards:
 - 1. Except where Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into Contract Documents. Such standards are made a part of the Contract Documents by reference. Individual sections indicate which codes and standards apply to that section. The Contractor shall purchase and maintain available at the project site one copy of all specified standards, codes, documents, or reports that have been referenced in the Contract Documents.
 - 2. Referenced standards take precedence over standards that are not referenced but recognized in the construction industry as standard practice.
- B. Publication Dates:
 - 1. Where compliance with an industry standard is required, comply with standard in effect as of date of Contract Documents.
- C. Conflicting Requirements:
 - 1. Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced unless the Contract Documents indicate otherwise. Refer requirements that are different but apparently equal and uncertainties as to which quality level is more stringent to the Engineer for a decision before proceeding.
 - 2. In every instance the quantity or quality level shown or specified shall be the minimum to be provided or performed. The actual installation may comply exactly, within specified tolerances, with the minimum quantity or quality specified, or it may exceed that minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum values as noted or appropriate for the context of the requirements. Refer instances of uncertainty to the Engineer for decision before proceeding.
- D. Copies of Standards: Each entity engaged in construction on the project is required to be familiar with industry standards applicable to that entity's construction activity.

- E. Industry Standards: In addition to Federal, state, and local ordinances, the latest edition of the following industry standards shall apply as referred to in the drawings and specifications.

2.00 PRODUCTS

Not applicable

3.00 EXECUTION

Not applicable

END OF SECTION

SECTION 01 21 00

ALLOWANCES

PART 1 GENERAL

1.1 ALLOWANCES: The Cash Allowances indicated in this section shall be included in the Base Bid.

1.2 Unless otherwise provided in the Contract Documents:

- A. Allowances shall include the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance shall be included in the Contract Sum, but not in the Allowances.
- B. Whenever costs are more or less than the allowance, the Contract Sum shall be adjusted accordingly by Change Order.

Allowance No. 1 – General Conditions & Bonds: The Contractor to provide a line item in the Schedule of Values in the amount of \$ 259,705.60 for Owner Contingency to be determined and used at a future time.

The above noted Owner Contingency Allowance is controlled solely by the Owner and is in addition to any cost allowance provided for under the various sections. Expenditures from the Contingency Allowance must be issued as a Change Order or Interim Change Authorization (Field Order) issued by the ODR or the Architect/Engineer and approved by the Owner. The Owner Contingency Allowance will be tracked as a line item on the Schedule of Values. Expenditures from the Owner Contingency Allowance do not alter the total Contract Price. Any unused portion of the Contingency Allowance will be deducted from the Final Payment.

END OF SECTION

01300 SUBMITTALS

1.00 GENERAL

- 1.1. All submittals shall be transmitted to the Engineer in accordance with the following:
- A. The Contractor must double-check and sign all submittals before forwarding them for review and action by the Engineer.
 - B. The Engineer will review the submittal data. If there are no exceptions taken to the submittal, the electronic original copy will be retained by the Engineer. The Contractor must keep one (1) copy at the jobsite at all times.
 - C. If further action is required by the Contractor, the Engineer will retain one (1) copy of the submittal data and return all remaining copies to the Contractor.
 - D. The Engineer's approval of shop drawings and/or any aspects of the Work shall not act to transfer Contractor's responsibility for, nor relieve Contractor from the performance of any of Contractor's duties set forth in the contract documents.

1.2. RELATED DOCUMENTS

- A. The provisions and intent of the Contract, including the Uniform General Conditions and the Special Conditions apply to this work as if specified in this section.

1.3. SUBMITTAL PROCEDURES

- A. Materials furnished by the Contractor shall not be incorporated into the construction before review except as specified herein.
- B. Materials shall be submitted for review in the manner specified herein and under the applicable specific technical provisions. The methods of review may include submission of samples, shop drawings (including stock prints), catalogs (including cuts and descriptive literature), schedules, certificates, or field inspection. All materials for which no specific method of review is specified shall be subject to field inspection and review.
- C. The Contractor shall certify on all submittals that the material being proposed conforms to Contract requirements. The Contractor shall present all materials for each specification section at the same time as one submittal, titled with project title and contract number. Incomplete submittals and submittals with inadequate data will be rejected. Three copies shall be provided to the Engineer.
- D. The following detailed instructions include various methods of material review that shall be followed in submitting requests for review. The Engineer will review and return one copy of the submittal, appropriately stamped, and signed, to the Contractor. Items returned stamped "Conforms to Design Concept" or "Conforms to Design Concept with Revisions as Noted" shall be considered as adequate to incorporate into the construction. Items returned stamped "Returned" are not required for review. Items returned stamped "Rejected" or "Revise and Resubmit" shall be considered not adequate to incorporate into the construction and shall have the appropriate modifications and corrections made by the contractor and then re-submitted for review. Should the Contractor desire the return of more than one copy, photocopy reproductions or ammonia prints will be returned in the additional number desired, up to three copies.
- E. Review time: All requests for material review, shall be submitted in sufficient time so as

not to delay the progress of the work, allowing three business (3) days after receipt by the Engineer for review.

- F. Mailing address: Unless specified elsewhere, all requests for materials review shall be forwarded to:

Scott Harris, P.E. Project Engineer LAN inc.
500 North Shoreline Blvd, Suite 905
Corpus Christi, Tx, 78401
Email: SMHarris@lan-inc.com
PH: (361) 792 7225

Carver Wray, Project Manager
Texas General Land Office 1700 North Congress
Ave. Austin, TX 78701-1495
Email: carver.wray@glo.texas.gov
PH: (512) 463 1864

- G. Requests shall be accompanied by a transmittal letter for physical samples from the Contractor stating that the items of material submitted are the Contractor's selection for construction under the Contract and requesting review.

1.4. SUBMITTAL REGISTER

- A. The following table provides a summary of the key required submittals. This table is provided as a summary only and the Contractor is responsible for providing other submittals that may be indicated in the drawings and specifications. Contractor is responsible for ensuring that all submittals are completed and comply with the requirements indicated in the drawings and the respective specification's sections.

Section	Deliverable	Timeline
USACE Permit Pg 11	Disaster Response Plan	Within 15 days after NTP
USACE Permit Pg 11	Operations and Management Plan	Within 15 days after NTP
01000 1.10.2	Project superintendent qualifications	Within 15 days after NTP
01000 1.10.2	Subcontractor and material supplier lists	Within 15 days after NTP
01000 1.10.2	Names and titles of contractor representatives	Within 15 days after NTP
01000 1.10.2	Names, qualifications, and licenses of all licensed crafts	Within 15 days after NTP
01000 1.10.2	Contract price breakdown (Schedule of Values)	Within 15 days after NTP
01000 1.10.2	Material submittals	Within 15 days after NTP
01500	Site Utilization Plan	Within 15 days after NTP
01720 1.5.1	Surveyor qualifications	Within 15 days after NTP
01720 1.5.2	Preconstruction survey	Maximum 14 days and minimum of 7 days before Beach Fill placement
01720 1.5.3	Acceptance reach survey	Within 2 calendar days of survey
02229 1.4.2	Traffic Control and Safety Plan	Within 15 days after NTP
02229 1.4.3	Weigh scale certification	Prior to use of any scale
02229 1.4.4	Daily Construction Report	Completed daily, submitted weekly
02229 1.4.5	Fill material shipment log sheets	Workday following material delivery
02229 1.4.7	Construction Work Plan	Within 15 days after NTP
02229 1.4.8	Survey notes	Workday following survey
02229 2.2	Beach fill gradation testing	Every 1,500 cubic yards of delivered Beach Fill or once per day, whichever is more frequent

1.5. PROPOSED PRODUCTS

- A. In those instances where the specific technical provisions cite a brand name product, submittal of the material for review is not required unless required by the specific technical provisions. However, the Contractor shall advise the Engineer in writing (with a copy to the mailing address shown herein) that the specified brand name product will be used.
- B. Materials that are specified by reference to an industry standard or specification that is also stamped or otherwise shown on the material itself and are readily identified in the field do not require submittal of the material for review.

1.6. PRODUCT SUBSTITUTION PROCEDURES

- A. Brand name(s): Equivalent items are not acceptable unless specifically authorized in the Specifications by use of the term "approved substitute". Should the Contractor propose a substitute when "approved substitute" is specified, the Contractor shall include with the

submittal, sufficient technical documentation to readily demonstrate the material proposed is, in fact, equal to the brand name(s) specified. Submittals will be rejected if the Contractor fails to submit such documentation, or such documentation fails to demonstrate the equality of the item.

1.7. MANUFACTURER INSTALLATION INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to the Engineer in quantities specified for product data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.8. MANUFACTURER CERTIFICATES

- A. Submit four copies of certificates covering conformity to requirements of referenced Specifications or standard test results as follows:
- B. Certificates of conformity to referenced Specifications shall consist of a statement on the manufacturer's letterhead that the materials listed conform to the requirements of the referenced Specifications referred to by number.
- C. Certificates of standard test results shall consist of statements on the test laboratory's letterhead of the tests made and the tests results. The tests shall have been performed within one year of submittal of the reports for approval. Test reports shall be accompanied by certificates from the manufacturer certifying that the material and equipment proposed to be supplied is of the same type, quality, manufacture and make as that tested.

2.00 PRODUCTS

Not applicable

3.00 EXECUTION

Not applicable

END OF SECTION

01310 PROJECT SCHEDULE

1.00 GENERAL

1.1. DESCRIPTION

- A. This section covers the construction project schedule requirements, submittals of project schedule, and required completion date.

1.2. PROGRESS SCHEDULE

- A. The Contractor shall develop a progress schedule for submittal to the Owner and Engineer at the Pre-Construction Conference.
- B. The Progress Schedule shall set forth the order in which the Contractor intends to perform the Work. The schedule may be in graph or tabular form and shall include the date of submission for approval of drawings as may be required, starting dates for construction of the several parts of the Work, and estimated completion dates of such parts, and completion date of the project. At a minimum the progress schedule shall include the following:
 - 1. Notice to Proceed
 - 2. Mobilization
 - 3. Project Work Area Preparation
 - 4. Beach Fill
 - 5. Project Site Area Cleanup
 - 6. Demobilization
 - 7. Substantial Completion
 - 8. Project Float (10%)
- C. The Contractor shall promptly report to the Engineer any conditions which the Contractor feels will require revision of the schedule and shall promptly submit proposed revisions in the Progress Schedule for review by the Engineer. When such changes are accepted by the Engineer, the revised schedule shall be followed by the Contractor.
- D. The Progress Schedule shall identify which segment of the beach (referenced by station number) will be functioning as active areas of construction on a weekly basis.
- E. The Progress Schedule will be reviewed at the Pre-Construction Conference between the Engineer and the Contractor.
- F. The Contractor will periodically check actual progress of the Work against the progress schedule. Failure, without cause, to maintain progress in accordance with the Progress Schedule shall constitute a breach of the Contract and shall constitute reason for invoking the pertinent portions of the General Conditions of the Contract Specifications.
- G. If, through no fault of the Contractor, the proposed construction schedule cannot be met, the Engineer may require the Contractor to submit a revised schedule to the Engineer to be approved by him which thereafter will be applicable in lieu of the original proposed construction schedule.

1.3. DAILY CONSTRUCTION REPORTS

- A. The Contractor shall prepare a daily construction report recording events at the site and submit to the Owner. Daily construction reports will be submitted weekly and will cover the work conducted the previous week. The following information is to be included in the daily construction report:
1. List of subcontractors on the site
 2. Approximate count of personnel on the site
 3. General weather conditions
 4. Accidents and unusual events
 5. Meetings and significant decisions
 6. Stoppages, delays, shortages, losses
 7. Change Orders received, implemented
 8. Summary of progress made including estimate of volume of fill material delivered to site and installed

1.4. COORDINATION MEETINGS

- A. The Owner reserves the right to schedule and conduct coordination meetings at his option.
- B. Contractor shall conduct coordination meetings with his subcontractors, but the Engineer shall be invited to such meetings.
- C. Agenda: Review and solve operational conflicts between subcontractors, suppliers and/or Owner's operations.

2.00 PRODUCTS

Not applicable.

3.00 EXECUTION

Not applicable.

4.00 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the Work in this Section; all the costs of such Work shall be included in the price proposal for the various items in the *Contractor's Proposal Form*.

END OF SECTION

01400 QUALITY CONTROL

1.00 GENERAL

1.1 QUALITY CONTROL

- A. The Contractor will establish and maintain quality control for all work performed and all Products supplied to assure compliance with the Specifications.
- B. The Contractor will maintain written records of his quality control tests, inspections, construction surveys or other measures. The Contractor will maintain written records of corrective action required and taken to assure these Specifications are followed.
- C. At the Engineer's request the Contractor will provide copies of any quality control records requested.

1.2 SURVEYS

- A. Surveys performed during construction shall be done at no additional expense to the Owner. Construction surveys shall be conducted in accordance with the requirements specified in Section 01720 - Construction Surveying.
- B. The Contractor shall perform all construction surveys, using electronic surveying equipment, required to layout, and set any construction stakes and marks which are needed to establish the lines, grade, slopes, and cross sections.
- C. The Contractor shall perform surveys during construction to ensure that the new products are being placed within the tolerance specified.
- D. The survey method must be approved, in writing, by the Engineer, prior to beginning placement of products on the Project.
- E. The electronic surveying method must be approved, in writing, by the Engineer, prior to beginning placement of Products on the Project.
- F. Surveys will be of sufficient frequency and accuracy during construction so that the Engineer can determine that existing materials are being removed and the new Products are being placed on the structure within the tolerances of the Specifications.

1.3 FILL MATERIAL SAMPLING & TESTING

- A. The Contractor shall conduct sampling and testing of Beach Fill material as outlined in Section 02229 – Beach Fill.

2.00 PRODUCTS

- A. Not applicable.

3.00 EXECUTION

- A. Not applicable.

END OF SECTION

015000 TEMPORARY FACILITIES AND CONTROLS

1.00 GENERAL

1.01 WORK INCLUDED

- A. Provide temporary facilities and controls as needed to complete the Work (ex., field offices, storage sheds, portable toilet facilities, signage, etc.).
- B. Install and maintain temporary Project identification signs. Contractor shall not install any signage to advertise the Contractor's business.
- C. Submit proposed site utilization plan.

1.02 QUALITY ASSURANCE

- A. Provide a total electrical heating and cooling system for the field office capable of maintaining the following conditions:
 - 1. Heating: Minimum 75 degrees ID temp at 10 degrees ambient.
 - 2. Cooling: Minimum 75 degrees ID temp at 105 degrees ambient.
 - 3. Relative humidity: 48 to 54 percent.
- B. Inspect and test each service before placing temporary utilities in use. Arrange for all required inspections and tests by regulatory agencies and obtain required certifications and permits for use.

1.03 DELIVERY AND STORAGE

- A. Arrange transportation, loading, and handling of temporary buildings and sheds.

1.04 JOB CONDITIONS

- A. Locate buildings and sheds at the Site as indicated or as approved by the Owner.
- B. Prepare the Site by removing trees, brush, or debris and performing demolition or grubbing needed to clear a space adequate for the structures.
- C. Pay for the utilities used by temporary facilities during construction.
- D. Provide each temporary service and facility ready for use at each location when the service or facility is first needed to avoid delay in the performance of the Work. Provide field office complete and ready for occupancy and use within 7 days of the Notice to Proceed.
- E. Maintain, expand as required, and modify temporary services and facilities as needed throughout the progress of the Work.
- F. Remove services and facilities when approved by the Owner.
- G. Operate temporary facilities in a safe and efficient manner.
 - 1. Restrict loads on temporary services or facilities to within their designed or designated capacities.

2. Provide sanitary conditions. Prevent public nuisance or hazardous conditions from developing or existing at the Site.
3. Prevent freezing of pipes, flooding, or the contamination of water.
4. Maintain Site security and protection of the facilities.

1.05 OPTIONS

- A. Construction offices may be prefabricated buildings on skids or mobile trailers.
- B. Storage sheds may be prefabricated buildings on skids or truck trailers.

1.06 SITE UTILIZATION PLAN

- A. Submit for review and approval drawings and details of proposed site utilization plan for the beach nourishment site (each phase), borrow pit site and proposed haul routes. Plan shall include, but not be limited to, proposed staging and stockpile areas, location of proposed portable toilets, proposed field office, proposed storage containers, etc.

2.00 PRODUCTS

2.01 TEMPORARY STORAGE BUILDINGS

- A. Furnish storage buildings of adequate size to store any materials or equipment delivered to the Site that might be affected by weather.

2.02 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities at the Site from the commencement of the Project until Project conclusion. Maintain these facilities in a clean and sanitary condition at all times and comply with the requirements of the local health authority. On large sites, provide portable toilets at such locations that no point in the Site shall be more than 600 feet from a toilet.
- B. Use these sanitary facilities. Do not use restrooms within existing or Owner-occupied buildings.

2.03 TEMPORARY UTILITIES

- A. Provide the temporary utilities for administration, construction, testing, disinfection, and start-up of the Work, including electrical power, water, and telephone. Pay all costs associated with furnishing temporary utilities.
 1. Provide a source of temporary electrical power of adequate size for construction procedures.
 - a. Use existing power systems where spare capacity is available. Provide temporary power connections that do not adversely affect the existing power supply. Submit connections to the Owner for approval prior to installation.
 - b. Provide electrical pole and service connections that comply with Laws and Regulations and the requirements of the power company.
 2. Provide telephone service to the Site and install telephones inside the Contractor's and the Owner's field office.

2.04 WATER FOR CONSTRUCTION

- A. Provide temporary water. Potable water may be purchased from the Owner by obtaining a water meter from the Owner and transporting water from a water hydrant. Non-potable water may be used for hydraulic testing of non-potable basins or pipelines. Include the cost of water in the Contract Price.

3.00 EXECUTION

3.01 LOCATION OF TEMPORARY FACILITIES

- A. Locate temporary facilities in areas approved by the Owner. Construct and install signs at locations approved by the Owner. Install informational signs as shown on plans.

3.02 DRINKING WATER

- A. Provide all field offices with potable water. Provide a dispenser and cooling apparatus if bottled drinking water is provided.
- B. Pay for water services and maintain daily.

3.03 CONSTRUCTION FENCE

- A. Install and maintain temporary orange plastic construction fencing where necessary to help prevent public access to work areas.

3.04 REMOVAL OF TEMPORARY FACILITIES

- A. Remove all temporary facilities and controls, including temporary signage, at the conclusion of the Project and restore the Site to original condition or finished in accordance with the Drawings.

3.05 MAINTENANCE AND JANITORIAL SERVICE

- A. Provide janitorial service (sweeping/mopping) for the Owner's field office on a weekly basis or as requested. Empty trash receptacles daily or as needed.
- B. Maintain signs and supports in a neat, clean condition. Repair damage to structures, framings, or signs.
- C. Repair any damage to Work caused by placement or removal of temporary signage.
- D. Service, maintain, and replace, if necessary, the Owner's field office computer equipment throughout the Project as required by the Owner including replacement cartridges for all office equipment.

END OF SECTION

01720 CONSTRUCTION SURVEYING

1.00 GENERAL

1.1 SCOPE OF SECTION

- A The work covered by this section consists of furnishing all labor, materials, equipment and services necessary for performing all surveying required in conducting pre-construction and acceptance reach surveys, construction staking, and intermediate quality control survey for the Beach Fill project components.

1.2 RELATED SECTIONS

- A The provisions and intent of the Contract, including the General Conditions apply to this work as if specified in this section. Related Sections include the following:
 - 1. Section 02229 – Beach Fill

1.2 DEFINITIONS

- A Acceptance Reach: An acceptance reach is a segment of the Beach Fill used for inspection and acceptance of work. An acceptance reach is constructed to the full design section and is defined as the segment of beach lying between adjacent beach cross-section lines as delineated in the Contract Drawings.

1.3 REFERENCES

- A The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
- B US ARMY CORPS OF ENGINEERS STANDARDS:
 - 1. EM 1110-2-1003 (Nov 2013) Hydrographic Survey Manual
 - 2. EM 1110-1-1005 (Jan 2007) Control and Topographic Surveying Manual

1.5 SUBMITTALS

- A The pre-construction condition survey shall be completed and submitted to the Engineer a maximum of fourteen (14) and minimum of seven (7) calendar days prior to starting Beach Fill placement. Data shall be submitted as specified herein.
- B Acceptance reach survey data and results: the acceptance reach survey data shall be submitted within two (2) calendar days after completion of the survey. Data shall be submitted as specified herein.

1.6 QUALIFICATIONS OF SURVEYOR

- A. All pre-construction and acceptance reach surveys shall be signed and sealed by a Registered Professional Land Surveyor registered in the State of Texas. Surveyor shall have at least five (5) years of experience in beach profiling, bathymetric surveying and the use of electronic survey equipment.
- B. Intermediate Surveys to be used for Contractors internal use in work planning are not required to be conducted by a licensed professional land surveyor.

2.00 PRODUCTS

Not Applicable

3.00 EXECUTION

3.1 GENERAL SURVEY REQUIRMENTS

- A. The following are required for both Pre-Construction and Acceptance Reach surveys
- B. The Contractor shall be responsible for conducting all surveys required to demonstrate that the construction is in compliance with the specified tolerances and the lines, grades and elevations shown in the Contract Drawings.
- C. Locations of Survey Cross section Lines:
 - 1. The pre-construction and acceptance reach beach surveys shall be surveyed on the cross-sections and grid azimuths specified in the Plans.
 - 2. The coordinates for the project cross-sections listed in the Plans represent the project baseline. On each cross-section, the baseline shall be referenced as Range 0+00. Data points collected seaward of the baseline shall be reported as a positive offset while data points landward of the baseline shall have a negative offset.
- D. Survey Data Collection Requirements
 - 1. All topographic points shall be within one (1) foot horizontally of the established cross section line. All hydrographic points shall be within ten (10) feet horizontally of the established cross section line. Pre-construction and as-built surveys shall be conducted along the project cross sections listed in the plans. Surveys shall extend a minimum of fifty (50) feet landward of the landward toe of fill and a minimum of two hundred (200) feet seaward of the seaward toe of fill. If a fathometer is used to survey the offshore portion of the cross section, the bathymetric survey and rod survey shall overlap a minimum of fifty (50) feet.
 - 2. A sufficient number of points shall be taken along each cross section to ensure adequate description of topographic features, such as the dune crest, foreshore, slope breaks, and intersections of the fill with the existing grade. Data points shall be taken at a spacing of not more than ten (10) feet with a maximum elevation difference of approximately one (1) foot between adjacent points. The product shall be a

continuous line representing the entire fill template of the beach and dune.

3.2 SEQUENCE OF SURVEY WORK

- A. The Contractor shall conduct the construction surveying in the following sequence from first to last:
 - 1. Pre-Construction Condition Survey
 - 2. Construction Staking
 - 3. Intermediate Surveying
 - 4. Acceptance Reach Surveying

3.3 CONSTRUCTION CONDITION SURVEY

- A. General: The Beach Fill area conditions are dynamic in nature. Conditions existing during the preparation of this Contract may not be an accurate representation of the Beach Fill area conditions existing at the commencement of Beach Fill operations. Consequently, the Contractor shall conduct a pre-construction condition survey of beach cross-section transects as shown in the Contract Drawings. The Contractor shall perform a pre-construction survey to verify slope lines, grades and to verify existing conditions within the Beach Fill placement area.
- B. The Contractor shall conduct and submit pre-construction surveys for the entire fill placement area. This will allow the Engineer to prepare updated cross-sections for the fill templates and assess volumetric requirements based on the pre-construction conditions. The Contractor shall not commence fill placement until cross-sections, based upon the pre-construction surveys, have been prepared by the Engineer. The Engineer will provide to the Contractor the revised template at each project cross section in a spreadsheet format; the Plans will not be updated and reissued. Placement of fill in an area prior to completion and review of the pre-construction surveys is at the Contractor's risk and may or may not be approved for payment

3.4 CONSTRUCTION STAKING

- A. The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of Beach Fill. Except for the construction baseline data to be furnished by the Owner, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. The Contractor shall also stake the edge of the beach and upland work areas prior to the start of construction.
- B. Construction and grade stakes, and any other stakes for any purpose, will be removed intact after filling to cross sections accepted by or as directed by the Engineer. All stakes shall have sufficient length above grade so they may not be accidentally covered by the fill.
- C. Detailed survey records shall be maintained, including a description of the work performed on each shift, the methods utilized, and the control points used. The record shall be adequate to allow the survey to be reproduced. A copy of each day's record shall be provided to the Engineer when the applicable acceptance reach survey is submitted.

- D. The construction staking survey work by the Contractor shall include, but is not limited to the following:
 - 1. Verify the primary horizontal and vertical controls furnished by the Owner and expand into secondary control by adding stakes and hubs as well as additional survey control needed for the project. Provide descriptions of secondary control to the Owner.
 - 2. Establish, by placing hubs and/or marked stakes, the location, with offsets, of other survey baseline locations.
 - 3. Establish offsets to centerline of reference line or baseline for beach nourishment.
 - 4. Establish, by placing hub or stakes, the locations of the landward top edge of Beach Fill.
- E. The Contractor shall provide the Owner copies of any calculations and staking data when required by the Engineer.
- F. The Owner may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.
- G. Beach Fill work is to be performed using contractor-provided construction staking and shall not begin until the construction staking is field reviewed and approved by the Owner or Engineer. Such approval shall not relieve the Contractor of responsibility for the accuracy of the stakes.
- H. All construction stakes shall be removed by the Contractor prior to final project acceptance.

3.5 INTERMEDIATE CONSTRUCTION SURVEYS

- A. The Contractor shall perform surveys throughout the duration of the construction work (in between the construction staking and acceptance reach surveys) to ensure that the new products are being placed within the specified grades, slopes, distances, and tolerances.
- B. Intermediate construction surveys performed during construction shall be done at no additional expense to the Owner.
- C. Intermediate construction surveys shall be conducted with electronic surveying equipment and shall have accuracy as specified in Paragraph 3.9.
- D. The intermediate survey method must be approved, in writing, by the Engineer, prior to beginning placement of Beach Fill material on the Project
- E. Intermediate construction surveys will be of sufficient frequency and accuracy that the Engineer can determine that Beach Fill material is being placed within the grades, slopes, distances, and tolerances as shown on the Contract Drawings.

3.6 ACCEPTANCE REACH SURVEY

- A. Within two (2) days following the completion of placement of all Beach Fill within an acceptance reach, an acceptance reach survey shall be performed to provide verification that the final Beach Fill was constructed in accordance with Section 02229 – Beach Fill and the Contract Drawings.
- B. Locations of Survey Lines: The Contractor shall perform an acceptance reach survey for all areas that receive Beach Fill. The survey shall consist of transects that shall be obtained at the same transect locations surveyed for the pre-construction survey. Each of the acceptance reach survey transects shall tie into each of the temporary benchmarks.
- C. The acceptance reach survey data shall be submitted to the Engineer in ASCII delimited text format electronic file. Transects shall be plotted and submitted in hard copy and electronic format. Plots shall show the final transects superimposed onto the pre-construction and intermediate construction survey transects.

3.7 SURVEY CONTROL

- A. Survey control will be established from the existing survey baseline control description data information as shown on the Contract Drawings.
- B. The Contractor shall utilize North American Vertical Datum (NAVD) 1988 as the vertical datum for elevation and depth measurements for all cross-sections. The Contractor shall utilize Texas State Plane Coordinate System (NAD 1983 South Central Zone) as the horizontal reference datum.
- C. Any existing monuments that are disturbed by construction operations shall be reset at the Contractor's sole expense by a Registered Professional Land Surveyor (RPLS). Property corners, fences or any other indications of property lines shall be referenced by the Contractor prior to construction and reset after completion of construction in accordance with recognized Engineering and surveying practice.

3.7 SURVEY TOLERANCES

- A. The cross-section lines shall be surveyed utilizing surveying procedures and methodology that meet or exceed accuracy tolerances of +/- 0.20 feet in the vertical and +/- 0.50 feet in the horizontal, with a 95% confidence level. All surveys performed in conjunction with this Contract shall meet all criteria outlined in EM 1110-2-1003 and EM 1110-1-1005.

3.8 PROCEDURES, METHODS AND EQUIPMENT

- A. Approvals Required: All surveying procedures, methods and equipment for landward beach surveys, hydrographic surveys, and tidal monitoring (if applicable), shall be reviewed and approved by the Owner or Engineer prior to the conduct of any type of surveying work.

This review process shall also include the review and acceptance of the Surveyor's Qualifications, as defined in the Paragraph entitled: "Qualifications of Surveyor".

3.9 DATA SUBMISSION

- A. General: The pre-construction and acceptance reach surveys shall be submitted in accordance with this section.
- B. Horizontal distances of each survey point shall be referenced as positive seaward from the established baseline point and negative landward from the baseline. All survey data shall be recorded digitally in ASCII text format and in AutoCAD or similar, compatible format. All cross-section survey data shall be submitted to the Owner and Engineer in all of the following formats:
 - 1. Raw and edited survey project files and data collector files.
 - 2. ASCII files for distance offset from baseline format.
 - 3. One ASCII file containing the following for all cross-section lines: cross section ID, survey origin, baseline section number and grid azimuth with respect to the horizontal reference coordinate system.
 - 4. Plotted cross-section drawings in AutoCAD 2020 (or more recent version) format for each cross-section survey taken. Each drawn cross-section shall show the station that it was taken from.
 - a. ASCII files XYZ format.
 - b. Timely Submission of Survey Data: Survey data, unless specified otherwise, shall be submitted to the Engineer and Owner within two (2) calendar days of completion of the surveys.
 - c. Digital transfer of survey data shall be by email or other digital media approved by Engineer.

4.00 MEASUREMENT AND PAYMENT

4.1 CONSTRUCTION SURVEYING

- A. Measurement: No measurement for payment of the Construction Surveying work as specified in this Section will be made.
- B. Payment: Payment for the Construction Surveying will be made on a per each basis, in the *Contractor's Proposal Form*. This price shall include all materials and labor required to perform the construction survey work. The payment shall also cover all staking, intermediate survey and post construction survey work.

02100 PROTECTION OF ENVIRONMENT

1.00 GENERAL

1.1 DESCRIPTION

A. This section covers the protection of the environment, compliance with environmental permits, and the planning, designing, constructing, and maintaining of water diversion, necessary or required to dewater, divert, remove, treat, and dispose of water from construction areas. The Contractor shall perform all work necessary to comply with the requirements of the Contract Documents and all applicable Federal, State, and local permits, regulations and laws governing this Work.

1.2 RELATED DOCUMENTS

- A. Related sections include the following:
1. Section 02229 – Beach Fill
 2. Section 02900 – Site Restoration & Protection
 3. Appendix A – USACE Permit

1.3 ENVIRONMENTAL PROTECTION REQUIREMENTS

- A. Contractor shall provide and maintain, during the life of the contract, environmental protection as defined. Contractor shall plan for and provide environmental protective measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with Federal, State, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.
- B. Contractor shall prepare and submit for review and acceptance shop drawings and details of proposed environmental protection measures for both the beach nourishment site and the borrow site(s). Proposed environmental protection measures shall also comply with any applicable requirements indicated in the drawings, specifications and Appendices (ex., USACE permit, environmental report).

1.4 TEMPORARY EROSION CONTROL

- A. Install, maintain, and remove erosion, sedimentation, and environmental control devices, such as but not limited to silt fences, stabilized construction entrances, etc. Best Management Practices (BMPs) shall be implemented in all Work areas including the borrow site(s), Beach Fill placement areas, construction staging areas and beach access areas.

2.00 PRODUCTS

2.1 GENERAL

- A. The Contractor is responsible for the selection and adequacy of all materials and equipment used for sediment control, diversion, de-watering, and water quality control systems which shall be submitted to the Engineer for review and acceptance prior to the start of construction.

3.00 EXECUTION

3.1 GENERAL

- A. All work operations shall be conducted in a manner that causes little or no adverse environmental impact to adjacent areas. If at any time, as a result of project activities, water quality problems develop (including equipment leaks or spills), operations shall cease, and the Engineer shall be contacted immediately.

- B. All debris or deleterious material and vehicle sediment tracking resulting from construction shall be removed from the work area and prevented from entering waters of the state.

3.2 EQUIPMENT MAINTENANCE

- A. Contractor shall inspect, clean, and maintain all tools, equipment and resources to prevent discharge of petroleum products, other hazardous materials and pollutants.

3.3 TEMPORARY EROSION CONTROL

- A. Contractor is responsible for complying with all storm water runoff control requirements indicated in the USACE permit, Contract Documents and applicable Federal, State and Local regulatory requirements. This will include periodic inspections of any established erosion control to ensure it is performing adequately. If maintenance is required, the contractor will document in the weekly construction report the inadequacies and how they were repaired to operating condition.

3.4 PROTECTION OF ENVIRONMENTAL RESOURCES

- A. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this Contract shall be protected during the entire period of this Contract. The Contractor shall confine his activities to areas defined by the Contract Documents.

3.5 PROTECTION OF LAND RESOURCES

- A. Prior to the beginning of any construction, the Contractor shall identify all land resources to be approved by the Engineer. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and landforms without special permission from the Owner. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Where such special emergency use is

permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs.

3.6 PROTECTION OF WATER RESOURCES

- A. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities which are included in this contract. As soon as possible the Contractor shall clear all waterways of temporary embankments, temporary bridges, matting, falsework, debris, or other obstructions placed during construction operations that are not part of the finished work. The Contractor is responsible for maintaining area drainage during construction. Water shall not be allowed to pond on any roadway surface, and runoff from adjacent properties shall not be impeded by the Work.

- B. The Contractor is cautioned 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 approved March 3, 1899 (30 Stat. 1152; 33 U.S.C. 407). Violation of this prohibition is subject to penalties provided for under the referenced acts.

3.7 PROTECTION OF FISH AND WILDLIFE RESOURCES

- A. The Contractor shall keep construction activities under surveillance, management, and control to eliminate interference with disturbance to and damage of fish and wildlife, especially threatened and endangered species.

- B. THREATENED AND ENDANGERED SPECIES.
 - 1. The U.S. Fish and Wildlife Service identified the following threatened and endangered species that might be negatively affected by the proposed Work.
 - a. Endangered Kemp's ridley sea turtle (*Lepidochelys kempii*).
 - b. Threatened piping plover (*Charadrius melodus*).
 - c. The threatened red knot (*Calidris canutus rufa*) and proposed critical habitat for red knot.
 - 2. Contractor shall comply with the requirements of the Biological Opinion and Conference Opinion (BOCO) prepared by the U.S. Fish and Wildlife Service. A copy of the BOCO is attached to the USACE permit in Appendix A.
 - 3. Winter season in the Jamaica Beach area for piping plovers and red knots typically begins July 15th extending through May 15th.
 - 4. Peak nesting season for sea turtles in the Jamaica Beach area typically begins on March 15th extending through October 1st. Placement of beach nourishment sand shall be performed outside the nesting season, unless approved otherwise by the USACE and U.S. Fish and Wildlife Service. Placement of beach nourishment sand shall immediately stop

if nests are identified.

5. Contractor shall comply with the threatened and endangered species protective measure requirements if threatened and endangered species are encountered regardless of the typical winter and nesting seasons.
6. Contractor shall immediately stop working if a threatened or endangered species is found in the active work area. Equipment shall remain powered off until all threatened or endangered species have left the area. The wildlife monitor will determine the work area boundaries where the temporary work stoppage will occur.
7. At the end of each work day Contractor shall smooth out and loosen ruts, tread marks and other beach areas disturbed by the Contractor's work activities.
8. Training and Monitoring
 - a. Initial Training.
 - 1) Contractor's key personnel and crews (i.e., all project manager, superintendents, foremen, crew chiefs, laborers and equipment operators) shall attend a half-day training session prior to mobilization and commencement of the work.
 - 2) The training scope will include recognition of threatened and endangered species, avoidance measures, and reporting requirements.
 - 3) Initial training will be conducted by a qualified biologist hired by the City of Jamaica Beach.
 - 4) Changes in the Contractor's key personnel may require additional half-day training session(s) for the new key personnel before they can proceed. Additional training sessions will be scheduled at the City of Jamaica Beach's convenience. Contractor may be assessed the cost for the additional training sessions.
 - b. Daily Training
 - 1) Prior to the start of work each morning, all of the Contractor's personnel that will be working on site that day, shall attend a brief "tail gate" training session.
 - 2) Daily training will provide a brief refresher on the recognition of the threatened and endangered species and an update on the previous day's encounters, if any, with any nesting or injured wildlife.
 - 3) Daily training will be conducted by the full-time on site wildlife monitor.
 - c. Monitoring.
 - 1) Each morning, no equipment shall be powered on or driven on site until the wildlife monitor has inspected the site and equipment to determine no threatened or endangered species are present, including the presence of nests.
 - 2) Contractor's key personnel and crews shall continuously monitor for threatened and endangered species.
 - d. See the BOCO for details concerning training and monitoring.

3.8 PROTECTION OF AIR RESOURCES

- A. The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes, and work operated or performed by the Contractor in accomplishing the specified construction shall be

in strict accordance with the State of Texas Clean Air Act implemented in 1967, and all Federal emission and performance laws and standards. Ambient Air Quality Standards set by the Environmental Protection Agency shall be maintained for those construction operations and activities specified in this section. Special management techniques as set out below shall be implemented to control air pollution by the construction activities which are included in the Contract.

3.9 TURBIDITY CONTROL

- A. Contractor shall implement Best Management Practices to minimize turbidity impacts to Jamaica Beach. Areas to receive beach fill material will utilize temporary erosion control measures such as silt fencing and containment systems (berms and dikes) around the placement areas if the placed material is experiencing erosion and runoff.
- B. Material shall not be placed in locations that would interfere with the flow of existing drainage systems such as existing storm pipes, ditches, waterways, etc.
- C. Contractor shall minimize the waterward placement of materials by placing the materials to the maximum allowed elevation to the extent practical on the landward side of the required placement area.
- D. Placement shall proceed in a controlled manner to maximize sand retention on the beach and minimize losses to Jamaica Beach.

3.10 DISPOSAL OF EXCESS AND WASTE MATERIALS

- A. Contractor shall promptly remove and properly dispose of all excess materials, trash, debris and waste materials including hazardous materials (ex., oil and fuel for equipment, waste from temporary portable toilet facilities, etc.) in accordance with, but not limited to, Document 00 72 00 – Uniform General Conditions, Specification 02900 – Site Restoration & Protection.
- B. Contractor shall immediately secure and remove trash and debris to prevent wind and waves from transporting the trash and debris off the project site.
- C. Contractor shall immediately clean, abate, remove and properly dispose of any hazardous materials that are discharged in accordance with applicable Federal, State and Local regulations. Contractor shall immediately notify the Owner and ODR if hazardous materials are intentionally or accidentally discharged.

4.00 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the Work in this Section. All costs of such Work shall be included in the prices proposed for various items in the *Contractor's Proposal Form*.

END OF SECTION

02229 BEACH FILL

1.00 GENERAL

1.1 DESCRIPTION OF WORK

- A. The Work consists of all labor, material, equipment and resources necessary to furnish and place the Beach Fill for the beach nourishment of Jamaica Beach in accordance with the Contract Documents.

1.2 RELATED SECTIONS

- A. The provisions and intent of the Contract, including the General Conditions, Supplementary Conditions, and General Requirements, apply to this work as if specified in this section. Related Sections include the following:
 - 1. Section 01500 – Temporary Facilities and Controls
 - 2. Section 01720 – Construction Surveying
 - 3. Section 02100 – Protection of Environment
 - 4. Appendix A – U.S. Army Corps of Engineers Permit

1.3 REFERENCES

- A. Publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.
 - 1. American Society of Testing and Materials (ASTM) Publications
 - a. ASTM D 422 – (2007) Standard Test Method for Particle Size Analysis of Soils
 - b. ASTM D 2216 – Laboratory Determination of Water (Moisture) Content of Soil and Rock
 - 2. U.S. Department of Commerce, National Bureau of Standards
 - 3. H-55 – Handbook: Specifications of Tolerance and other Technical Requirements for Commercial weighing and measuring devices.

1.4 SUBMITTALS

- A. All submittals shall be made in accordance with Section 01300 – Submittals. The Contractor's Quality Control organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.
- B. Traffic Control & Safety Plan: The contractor shall submit a plan for controlling traffic and to provide safety measures at the project site during the delivery and placement of Beach Fill material. This plan must be submitted at the Pre-Construction Conference. See Section 01500 – Construction Facilities for additional information.
- C. Daily Construction Report: The Contractor shall provide a daily record of construction

activities. The report shall be completed daily and submitted to the Engineer weekly. See Technical Specifications 01310 - Project Schedule.

- D. Construction Work Plan: The Contractor shall submit to the Engineer the Construction Work Plan at the Pre-Construction Conference.
- E. Surveys: The Contractor shall furnish the original field notes of the preconstruction and acceptance reach surveys to the Engineer on the next workday following the surveys. The plotted cross-sections shall follow within two (2) calendar days or as approved by the Engineer. See specification 01720 – Construction Surveying.

1.5 CONSTRUCTION WORK PLAN

- A. Prior to commencing construction, the Contractor shall provide to the Engineer a Construction Work Plan containing the planned procedure and timing for the Work to be performed for each phase of work. The Plan shall contain a written description, figure and drawings describing the proposed construction details. This construction plan will be reviewed by the Engineer for general conformance with the design concept of the Project and shall include the following:
 - 1. Name of borrow site(s) proposed and estimated quantities of Beach Fill material obtained from borrow site(s).
 - 2. Descriptive work plan for obtaining, delivering, offloading, stockpiling, re-handling and placing Beach Fill material at the project site, beach access improvements
 - 3. Layout, size and sequence of beach segment to worked in each phase
 - 4. Order and timeline that beach segments will be worked
 - 5. Site utilization plan showing proposed locations for staging equipment, temporary pumps, storage containers, trailers, temporary stockpiles, etc
 - 6. Surveying Plan (pre-construction survey, staking and acceptance reach survey)
 - 7. Quality control testing plan including method for monitoring material gradations and moisture content.
 - 8. Description of proposed truck haul routes.

1.6 PERMITS

- A. Owner Supplied Permits
 - 1. The Owner has obtained permits for the placement of the Beach Fill along the project beach area; see Appendix A. By acceptance of the Contract, the Contractor agrees to abide by all applicable conditions of the Owner supplied permits.

1.7 PUBLIC SAFETY

- A. Public Roads and Facilities: All construction access points utilized for the Work shall be secured and surrounded by construction barricades and/or safety fence in accordance with applicable laws and ordinances as necessary to protect the public. See Section 01500 –

Construction Facilities.

- B. Sound: Perform construction in accordance with applicable laws and ordinances pertaining to sound. Work near residential neighborhoods, apartments, motels, condos, hotels, RV parks, camp sites, etc. shall be limited to normal daylight hours unless approved otherwise by the City.
- C. Beach: All work areas except haul routes on the beach shall be delineated by safety fence and posted with warning signs to prevent the public from inadvertently entering work areas.

1.8 ORDER OF WORK

- A. The sequence of construction shall be determined by the Contractor except as stated within these specifications or as stated on the Contract Drawings. Construction shall occur during allowable working hours and shall be continuous from start to finish with no appreciable shut-down periods.

1.9 BEACH FILL BORROW SOURCE

- A. Borrow locations have been identified as potential sources of Beach Fill material outlined in Permit SWG – 2020-00774 SOF and in the contract plans.
- B. The Contractor is responsible for coordinating the use of the borrow source site facilities.
- C. The Contractor is responsible for the cost of acquiring the Beach Fill material and responsible for paying any fees associated with use of the borrow area facilities.
- D. The Contractor is responsible for conducting ongoing communication and coordination with the facilities, their tenants and other facility users throughout the duration of the contract.

1.10 DUNE VEGETATION

- A. The Contractor shall protect all vegetation adjacent to and within the construction site.

2.00 PRODUCTS

2.1 BEACH FILL MATERIAL REQUIREMENTS

- A. General
 - 1. Beach Fill material shall be furnished by the Contractor and shall be obtained from the approved borrow source(s), see Paragraph 1.9 of this technical specification. Beach Fill material must also meet all State and Federal Environmental Protection Agency requirements.
 - 2. The Contractor is responsible for obtaining Beach Fill material from the approved source, delivery and spreading of beach compatible Beach Fill material that meet the specifications herein.
- B. Material Quality

1. The Contractor will be responsible for screening and performing any material processing required to ensure the fill material is free from deleterious substances at the location and before being loaded into the trucks. The Beach Fill material shall be free of deleterious substances including, but not limited to wood, organic waste, coal, charcoal, shale, alkali, chert, carbonates, mica, coated grains of soft and flaky particles, clay lumps, or lignite's. In addition, the Beach Fill material shall be clean and free of sod, roots, brush, wood, tires, plastic, rubbish, oil, metal, chemical contaminants, and other waste materials. The material shall not contain organic or non-organic substances that may be leached from the Beach Fill material in amounts sufficient to be deleterious or harmful or in any way interfere with the designated uses of the Gulf beaches and water. Beach Fill material shall consist of clean, hard, durable, uncoated particles of natural sand within the limits of the grading as specified in paragraph 2.2, Gradation. Beach Fill material shall consist of natural sand.
2. Beach Fill material shall have a maximum moisture content of 5%.

2.2 Gradation

- A. The character of the Beach Fill material furnished by the Contractor shall have a final composite gradation curve that fits within the gradation range in Table 2-1 below. Beach Fill material shall be tested in accordance with ASTM D422

Sieve Designation U.S Standard Square Mesh	Percentage Passing by Weight
No. 10	80-100
No. 16	50-100
No. 30	25-90
No. 50	10-50
No. 100	0-10
No. 200	0-5

Table 2-1: Required Gradation for Beach Fill Material

1. Silt content passing #200 sieve (0.074 mm) of less than 5%.

- B. Gradation Testing of Beach Fill material samples for conformance with the specified gradation (Table 2-1) shall be conducted in accordance with ASTM D422.

2.3 FILL MATERIAL QUALITY CONTROL TESTING

This section applies to the Beach Fill work during construction.

- A. Sampling

1. The Contractor will be responsible for the collection and testing of samples taken at the project during construction. Beach Fill material samples for laboratory testing shall be collected at the material delivery site prior to offloading.
2. Beach Fill material samples shall be collected at the rate of one (1) sample every 1,500 cubic yards of Beach Fill material delivered.
3. Samples shall not be taken from the exposed, exterior of the Beach Fill material pile. Samples shall be taken from a location within the inside of the Beach Fill material pile (at least 1 foot below the exterior).
4. Every sample shall be tested for gradation and moisture in accordance with ASTM D422 and ASTM D2216, respectively.

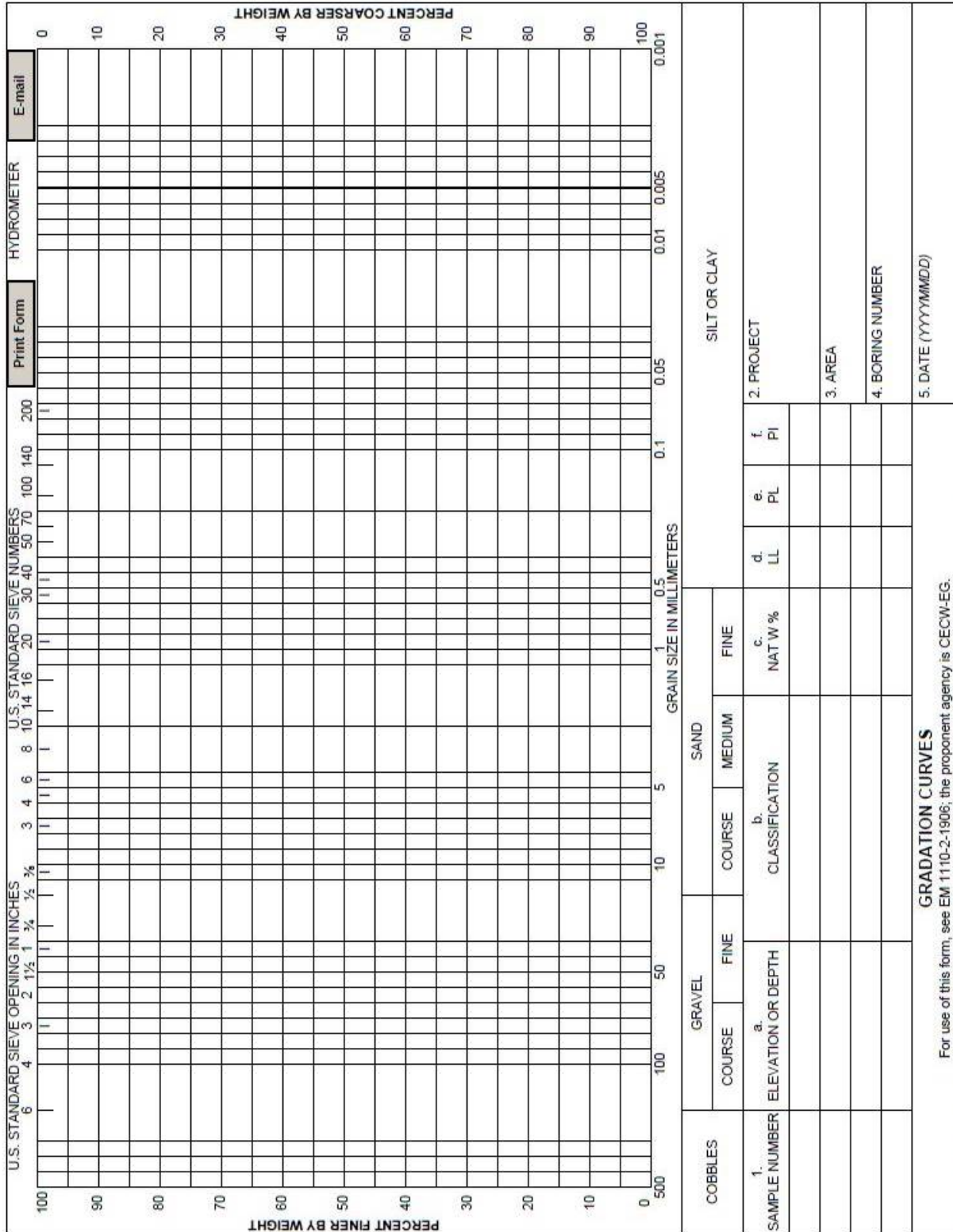
B. Sampled Material Gradation Testing

1. The gradation of material shall be determined in accordance with ASTM D422. Every sample shall be tested using the mechanical method.
2. In addition to the percentage passing, the test results shall also include percentage retained on each sieve. The gradation on a sample collected at the job site shall be completed within four (4) working days after the date of sample collection. Test results shall be submitted the workday following the day of the test to the Owner and the Engineer.

C. Grain Size Reporting

1. The grain size distribution information shall be upon ASTM D422, using U.S. standard sieve sizes: 10, 16, 30, 50, 100 and 200
2. Each sample test results shall be represented by a gradation curve and a frequency curve. All gradation curves shall be submitted on a chart similar to Figure 1. All title information shall be filled out with project name, date sampled, sample number, delivery truck number sample obtained from, unified soil classification, percent silt passing the No. 200 sieve (0.074 mm). Gradation curves shall show percent retained on vertical axis and grain size on horizontal axis.
3. Test results shall be submitted to the Owner and the Engineer. The grain size test results should be approved by the Engineer as local beach quality sand.

Figure 1 – Example gradation and frequency curve



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4. Gradation curves shall be identified by sample number and date and accompany the gradation curve. A tabulation of the laboratory results of weight retained, percent retained, and cumulative

percent retained on each sieve, by weight, shall be provided with each gradation curve.

5. Tabulated grain size laboratory results shall be reported in digital format in a Microsoft Excel Spreadsheet. Digital data shall be supplied on a weekly basis. Samples from the Beach Fill material source shall be numbered consecutively, and the sample and testing date identified. Samples from the project site shall be identified with the name or designation number assigned to the delivery truck

3.00 EXECUTION

3.1 GENERAL

- A. The Contractor shall submit a "Construction Work Plan" of operations for obtaining, delivering, and placing Beach Fill material at the site. A description of the proposed method of delivery should be included. Method of transporting Beach Fill material from the borrow source(s) to the designated work areas of the beach, proposed haul routes for each beach work area, and the method of spreading the Beach Fill material shall be included. The plan should also include the sequence of placement of the material with regard to acceptance reaches as described in "Order of Work", paragraph 1.8 of this section. The Construction Work Plan shall also describe and show the naming convention for each acceptance reach and project site work area. The Engineer reserves the right to reject any plan, the execution of which, in his opinion, may be detrimental to the stability of the in-place fill, which may unduly disrupt access to or use of the beach by the public during placement operations, or for any other credible reason.

3.2 QUALITY CONTROL

- A. The Contractor shall establish and maintain a quality control system for all operations performed under this Section to assure compliance with the contract requirements and maintain records of its quality control for all operations performed, including, but not limited to the following:
 1. Quality and gradation of Beach Fill material
 2. Construction surveys
 3. Placement and stockpiling of material.

3.3 PLACEMENT AREA PREPARATION

- A. The Beach Fill limits shall be cleared of all existing deleterious materials (garbage, logs, driftwood) prior to the installation of any Beach Fill material.
- B. All natural materials such as logs and vegetation shall be stockpiled within contractor staging areas as delineated in the Contract Plans. Debris shall not be stockpiled within the beach work area or beach access roads. The existing vegetation and dune vegetation shall not be impacted. Stockpiled material should be moved around as necessary as to not be covered with Beach Fill material.
- C. Garbage and other deleterious debris obtained during the beach clearing work shall be disposed of in a legal manner by the Contractor off the project site at an upland location at no additional expense to the Owner.

3.4 BEACH FILL MATERIAL DELIVERY AND HANDLING

- A. The determination of the haul route from the borrow source(s) to the project site work limits shall be determined by the Contractor unless otherwise noted in the Contract Drawings or these Specifications. However, the Contractor must obey all State and local laws governing truck traffic along the routes.
- B. The Contractor shall coordinate with and obtain approval (regarding load restrictions and traffic control requirements) from the following organizations for use of public roads along the Contractor's proposed haul route: City of Jamaica Beach.
- C. Contractor Staging Areas
 - 1. The staging and storage of equipment and materials by the Contractor is not permitted on private properties or on the beach within the designated beach work area limits unless noted otherwise. All equipment shall be removed from the beach work area and beach access roads on a daily basis.
 - 2. Beach Fill material shall not be temporarily stored within the beach work area or beach access roads; Beach Fill material delivered to the beach work area shall be placed in the Beach Fill template and spread into its final configuration at the time of delivery.
 - 3. If the Contractor requires additional staging or storage areas beyond what is provided by the Owner, he shall locate, coordinate, obtain use agreements and pay for the use of the additional staging and storage areas located outside of the work area limits and not on the beach. The Contractor shall submit a description and copy of legal documents for the additional staging and storage areas to the Owner for review

3.5 BEACH FILL PLACEMENT

- A. Beach Preparation: Prior to the placement of Beach fill material, the Contractor shall remove from the beach work area all debris, including driftwood, timber, concrete, rebar, and other debris lying within the limits of the Beach Fill section and not entirely covered by existing sand material. The debris materials removed shall be properly disposed. Natural driftwood located outside the work area shall be left undisturbed unless it impeded the progress of the Contractor and in such case, it shall be removed to an adjacent area as approved by the Engineer.
- B. Acceptance Reaches: The Contractor shall place Beach Fill material in segments defined as acceptance reaches. Acceptance Reaches are defined as defined in Section 01720-Construction Surveying.
- C. Once the Contractor begins placement in an acceptance reach, placement in that reach shall be completed before proceeding to another acceptance reach. Beach Fill placement shall proceed in an orderly manner from reach to reach.
- D. Beach Fill Placement Requirements
 - 1. Placement of the Beach Fill material shall be accomplished within the Beach Fill and placement area shown on the Contract Drawings, as defined herein, and as directed by the Engineer.
 - 2. All Beach Fill material delivered to the site shall be spread uniformly to the slope, lines, and grades indicated on the Contract Drawings.
 - 3. Placement of Beach Fill material shall proceed in a controlled manner to maximize Beach Fill material retention on the beach and minimize losses to the Gulf. The Contractor shall minimize the waterward placement of material by placing the material to the maximum allowed elevation to the extent practicable on the landward side of the required placement area and then continuing to place material waterward. Material placement in each acceptance reach shall conform to the

cross-sections shown on the Contract Drawings.

- a. The filled beach between the cross-sections shall be graded, dressed and uniform in dimension. Beach sections between cross sections shall be filled to a minimum of 95% of the volume based on the fill templates shown in the fill template cross-sections in the Plans, and to the minimum tolerance everywhere.
- b. Material shall not be placed in locations that would interfere with the flow of drainage from existing pipes or ditches and waterways.
- c. No payment will be made for any material that is placed outside of the specified Beach Fill placement area.
- d. Excavation or rearrangement of sand from the existing beach for use as Beach Fill will not be permitted.
- e. Prior to the end of the workday the Contractor shall place and grade all Beach Fill material delivered to the beach.
- f. Beach Fill shall not be placed in a manner that impairs beach access. Access to and along the public beach shall be restricted to the minimum extent practicable.
- g. Grading and other construction equipment shall not operate outside the construction work area limits of the project except for ingress and egress to and from the site.
- h. Water shall be prevented from ponding on Beach Fill area or between the Beach Fill area and upland areas.
- i. The Contractor will not be responsible for redistribution of Beach Fill caused by waves or storms within portions of the Beach Fill area that have already been accepted except that the Contractor shall perform the dressing specified in paragraph 3.6 The Contractor shall be responsible for redistribution of Beach Fill by waves or storms within the portions of project which have not been accepted
- j. Beach Fill shall not be placed over existing improvements. Existing signs, bollards, trash containers, or other structures within the beach fill area shall be protected and/or removed and later replaced by the Contractor.
- k. Structures adjacent to the Beach Fill area shall be protected by the Contractor to prevent damage. Beach Fill shall not be placed within 25 feet of any existing major structures unless otherwise approved by the Engineer.
- l. Under filling Between Accepted Cross Section Lines: If the Engineer observes or believes they have observed underfilling of the dune between project cross section lines, the Engineer may request an additional survey be conducted by the Contractor at the Contractor's expense. If found to be deficient, the Contractor shall place additional fill until the beach and dune is uniform in appearance and dimensions between project cross section lines, provides the shapes depicted in the Plans, provides a minimum of 95% of the design fill volume and meets the minimum tolerance at all locations in the acceptance reach in order to qualify for payment of that section. Fill will not be obtained from adjacent areas of the beach or dune to remedy under filling.

3.6 GRADING AND DRESSING

- A. Prior to surveys, the Beach Fill surface shall be smoothly and uniformly graded and dressed to eliminate any humps or depressions.

- B. Upon completion of an acceptance reach, the Beach Fill shall be graded and dressed so as to eliminate any mounds, depressions, or irregularities in the Beach Fill surface as necessary to comply with the tolerance requirements specified below. Beach Fill shall not be placed outside of the lines and grades shown on the Contract Drawings. Material placed outside of the specified limits (considering allowable placement tolerances) will be measured and the volume deducted from the total measured quantities for payment.
- C. The Contractor shall grade the project site and smooth out any ruts or depressions on the beach within the beach work area and beach access routes on the beach at the end of each construction day.
- D. Any escarpments along the constructed Beach Fill greater than 9 inches in height, in excess of 100 feet in length, shall be leveled throughout the duration of the construction period for accepted and non-accepted reaches.
- E. Tolerances:
 - 1. In placing the Beach Fill material, a tolerance of plus or minus 0.25 feet will be allowed from the established grades shown on the Contract Drawings. However, continual placement of material to the plus tolerance for a plane area of 1,000 square feet will not be permitted.
 - 2. In the event material at any prescribed cross-section is below the minus or above the plus tolerance, the Contractor will be required to provide or remove respectively, additional Beach fill material to the level of the Beach Fill template.
 - 3. The Contractor must place a minimum of 95% of the design volume between project cross section lines and achieve the minimum fill tolerance in order to be considered for payment of that acceptance reach, unless otherwise accepted by the Engineer in writing.
- F. Final Project Dimensions
 - 1. The Engineer reserves the right to vary the Beach Fill cross-section at any location along the beach based on remaining available contract quantities at no additional expense to the owner.

3.7 CHECK SURVEYS

- A. Pre-construction surveys, field staking, intermediate surveys, and acceptance reach surveys are required and shall be conducted in accordance with Section 01720 – Construction Surveying.

3.8 BASIS OF CALCULATION OF FILL VOLUMES

- A. The tonnage to fill volume calculations shall be based on a conversion factor of 1.35 tons per cubic yard.

4.00 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. Contractor will receive no payment for any fill sand which is not (a) contained within the limits of the fill area shown in the Plans (b) contiguous to the fill template and above the pre-construction cross section.
- B. Volume in cubic yards will be based on the conversion factors for tonnage to cubic yardage as stated in Section 3.8 of this Section.

4.2 PAYMENT

- A. Payment for the Beach Fill will be made at the unit price in the *Contractor Proposal Form*. Payment for delivery and placement of the Contractor-furnished Beach Fill material for the proposal item will be at the contract unit price per cubic yard (as converted from dry-weight tonnage), which includes all costs as applicable for pre-placement preparation activities; production moisture content and gradation testing, associated cost with additional staging and storage areas, project site preparation, purchasing, furnishing, transporting, and placing the Beach Fill material to the project site; and labor and equipment required to complete the work as specified herein and shown on the Contract Drawings.

END OF SECTION

02900 SITE RESTORATION & PROTECTION

1.00 GENERAL

1.01 WORK INCLUDED

- A. The work includes labor, materials, equipment, and services required for completion of the work under this Section, all as shown on the drawings and as specified herein.
- B. This Section includes, but is not necessarily limited to,
 - 1. Restoration of areas disturbed by construction activities

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02229 – Beach Fill

1.03 QUALITY ASSURANCE

- A. As required for the work, clearing may be required for miscellaneous incidental work. Where needed, the Contractor shall request authorization from the Engineer to do so and will not proceed until approved by the Engineer.

1.04 PROJECT CONDITIONS

- A. Protection of Existing Structures: Provide protection necessary to prevent damage to existing structures.
- B. Protection of adjoining properties: Restore damaged properties to their original condition, as acceptable to property owners.

2.00 PRODUCTS (NOT USED)

3.00 EXECUTION

3.01 PROTECTION OF EXISTING STRUCTURES

- A. The Contractor shall take all necessary precautions to ensure that existing structures, utilities and equipment within and adjacent to the site, and indicated to remain, are not damaged during the work.
- B. Work or features scheduled to remain that are damaged by the Contractor shall be restored at its own expense to the satisfaction of the Town.

3.02 PROTECTION REGULATED COASTAL AREAS

- A. The Contractor shall take all necessary precautions to ensure the regulated coastal areas within and adjacent to the site, and indicated to remain, are not damaged during the work.

3.03 DISPOSAL OF MATERIAL

- A. Disposal methods shall be in accordance with all federal, state and local requirements, as well as being acceptable to the Town and to the Engineer.
- B. Burning is not permitted.

3.04 DEMOLITION AND REMOVAL OF EXISTING ITEMS

- A. The Contractor shall remove all existing items designated for removal in their entirety, or to lines and grades shown on the drawings or as specified herein.
- B. Items designated to be salvaged and re-used shall be removed and stored in a careful manner so as not to damage any items. Any material mishandled or damaged in any way shall be replaced at the contractor's expense.

3.05 SITE RESTORATION

- A. All areas disturbed during construction shall be restored to pre-construction conditions unless noted otherwise.
- B. Preparation and installation of pavement repairs shall be in accordance TXDOT Standard Specifications for Road and Bridge Design

4.00 METHOD OF MEASUREMENT AND PAYMENT

4.01 METHOD OF MEASUREMENT:

- A. Measurement for payment for Site Restoration & Protection as specified herein shall be made on a lump sum basis.

4.02 PAYMENT

- A. Payment for the site restoration and protection work as specified herein shall be made on a lump sum basis, which lump sum price shall include full compensation for all excavation, stripping, grubbing, disposal, loaming, seeding, maintenance, erosion control measures, and the furnishing of all labor, maintenance, removal, materials, tools, and equipment, and all other incidental work necessary to complete the work under this item, as shown on the Drawings or as required.

END OF SECTION

DEPARTMENT OF THE ARMY PERMIT

Permittee City of Jamaica Beach

Permit No. SWG-2020-00774

Issuing Office Galveston District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: To discharge 65,000 cubic yards of beach quality sand for nourishment activities along 3,300 linear feet of Gulf of Mexico (GOM) beach frontage. The nourishment template is approximately 200-foot-wide, extending from the vegetation line at the north limit to the approximate -0.5-foot contour seaward, including 11.27 acres seaward of the High Tide Line. Beach nourishment will occur as needed over the 5-year permit term. The sand will be obtained from 1 of 10 identified sand sources and hauled to the project site via truck or barge using temporary pipeline delivery. The project will be conducted in accordance with the attached plans, in 9 sheets and Attachment A.

Project Location: In the Gulf of Mexico, along an approximate 3,300-linear-foot section of Galveston Island, beginning at 15 Mile Road and extending westerly to approximately 100 feet past Beachcomber Drive, in The City of Jamaica Beach, Galveston County, Texas.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on 31 December 2027. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
2. When structures or work authorized by this permit are determined by the District Engineer to have become abandoned, obstructive to navigation or cease to be used for the purpose for which they were permitted, such structures or other work must be removed, the area cleared of all obstructions, and written notice given to the Corps of Engineers, Galveston District, Regulatory Division, within 30 days of completion.
3. The permittee must install and maintain, at the permittee's expense, any safety lights, signs and signals required by US Coast Guard, through regulations or otherwise, on the permittee's fixed structures. To receive a US Coast Guard Private Aids to Navigation marking determination, at no later than 30 days prior to installation of any fixed structures in navigable waters and/or prior to installation of any floating private aids to navigation, you are required to contact the Eighth Coast Guard District (dpw), 500 Poydras St., Suite 1230, New Orleans, LA 70130, (504) 671-2328 or via email to: D8oanPATON@uscg.mil. For general information related to Private Aids to Navigation please visit the Eighth Coast Guard District web site at: <https://www.atlanticarea.uscg.mil/District-8/District-Divisions/Waterways/PATON/>
4. The Corps permit does not authorize you to take an endangered or threatened species. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit or a biological opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed U.S. Fish and Wildlife Service (USFWS) Biological and Conference Opinion (BOCO) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BOCO. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BOCO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BOCO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its BOCO and with the ESA.
5. All borrow areas identified as 'proposed' require coordination and approval by the Corps prior to use as a sand source.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- Section 404 of the Clean Water Act (33 U.S.C. 1344).
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

(REVERSE OF ENG FORM 1721)

- d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.




 (PERMITEE)
CITY OF JAMAICA BEACH

06/07/2022

 (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



 (DISTRICT ENGINEER)
ANDRIA DAVIS
LEADER, NORTH EVALUATION UNIT
FOR COLONEL TIMOTHY R. VAIL

7 June 2022

 (DATE)

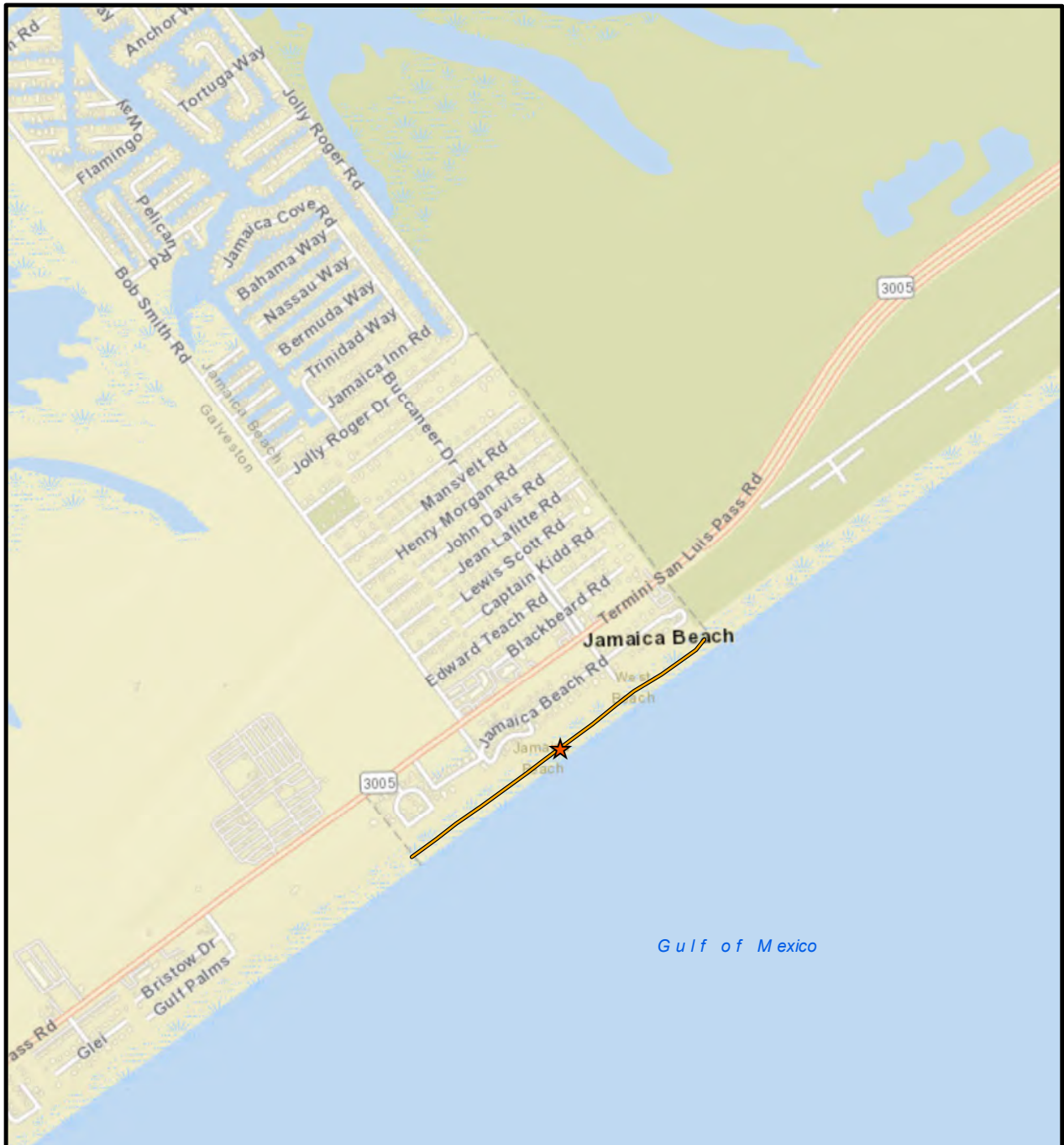
When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

 (TRANSFEEE – Typed/Printed Name)

 (DATE)

 (TRANSFEEE - Signature)

 (Mailing Address)





THE FOLLOWING PERMIT DRAWINGS ARE FOR PERMITTING/PLANNING PURPOSES ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION

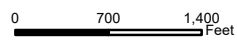
REVISED 10/26/2021



Project Location is
 29.180247 Latitude
 -94.973499 Longitude
 Galveston Quadrangle
 NAD 83 State Plane Texas South Central

-  PROJECT LOCATION
-  APPROXIMATE LIMITS OF BEACH NOURISHMENT

Datum: NAD 1983
 Projection: State Plane Texas South Central
 Units: Feet
 Basemap: ESRI Streets



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Member of the SNC-Lavalin Group TBPEReg. No. F-474

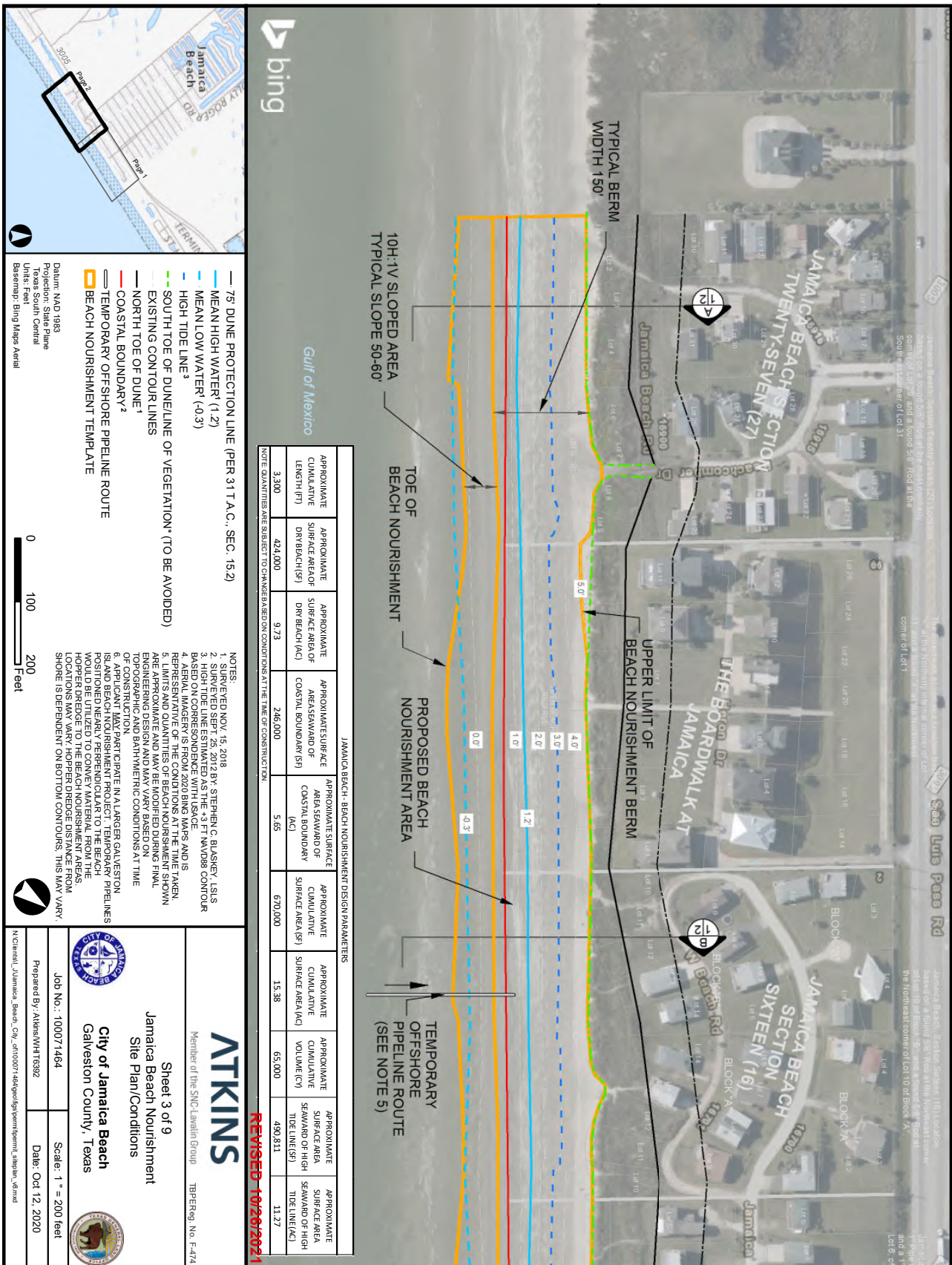
Sheet 1 of 9
 Jamaica Beach - Beach Nourishment
 Vicinity Map

City of Jamaica Beach
 Galveston County, Texas



Job No.: 100071464	Scale: 1" = 1,400 feet
Prepared By: ATKINS/WHIT6392	Date: Oct 08, 2020

N:\Clients\J\Jamaica_Beach_City_of100071464\geotiffs\permit\permit_vicinity_v6.mxd



- 75' DUNE PROTECTION LINE (PER 31 T.A.C. SEC. 15.2)
- MEAN HIGH WATER¹ (1.2')
- MEAN LOW WATER¹ (-0.3')
- HIGH TIDE LINE³
- SOUTH TOE OF DUNE/LINE OF VEGETATION* (TO BE AVOIDED)
- EXISTING CONTOUR LINES
- NORTH TOE OF DUNE¹
- COASTAL BOUNDARY²
- TEMPORARY OFFSHORE PIPELINE ROUTE
- BEACH NOURISHMENT TEMPLATE

NOTES:

1. SURVEYED NOV. 15, 2018
2. SURVEYED SEPT. 25, 2012 BY STEPHEN C. BLASKO, LSLS
3. HIGH TIDE LINE ESTIMATED AS THE +3.1 FT NAVD88 CONTOUR
4. AERIAL IMAGERY'S FROM 2020 BING MAPS AND IS REPRESENTATIVE OF THE CONDITIONS AT THE TIME TAKEN.
5. LIMITS AND QUANTITIES OF BEACH NOURISHMENT SHOWN ARE APPROXIMATE AND MAY BE MODIFIED DURING FINAL ENGINEERING DESIGN AND MAY VARY BASED ON CONSTRUCTION METHODS AND MATERIALS TO BE USED AT TIME OF CONSTRUCTION.
6. APPLICANT MAY PARTICIPATE IN A LARGER GALVESTON ISLAND BEACH NOURISHMENT PROJECT. TEMPORARY PIPELINES POSTED NEARLY PERPENDICULAR TO THE BEACH. HOPPER DREDGE TO THE BEACH NOURISHMENT AREAS. LOCATIONS MAY VARY. HOPPER DREDGE DISTANCE FROM SHORE IS DEPENDENT ON BOTTOM CONTOURS. THIS MAY VARY.

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IBPEReg. No. F-474

Sheet 3 of 9
Jamaica Beach Nourishment
Site Plan/Conditions

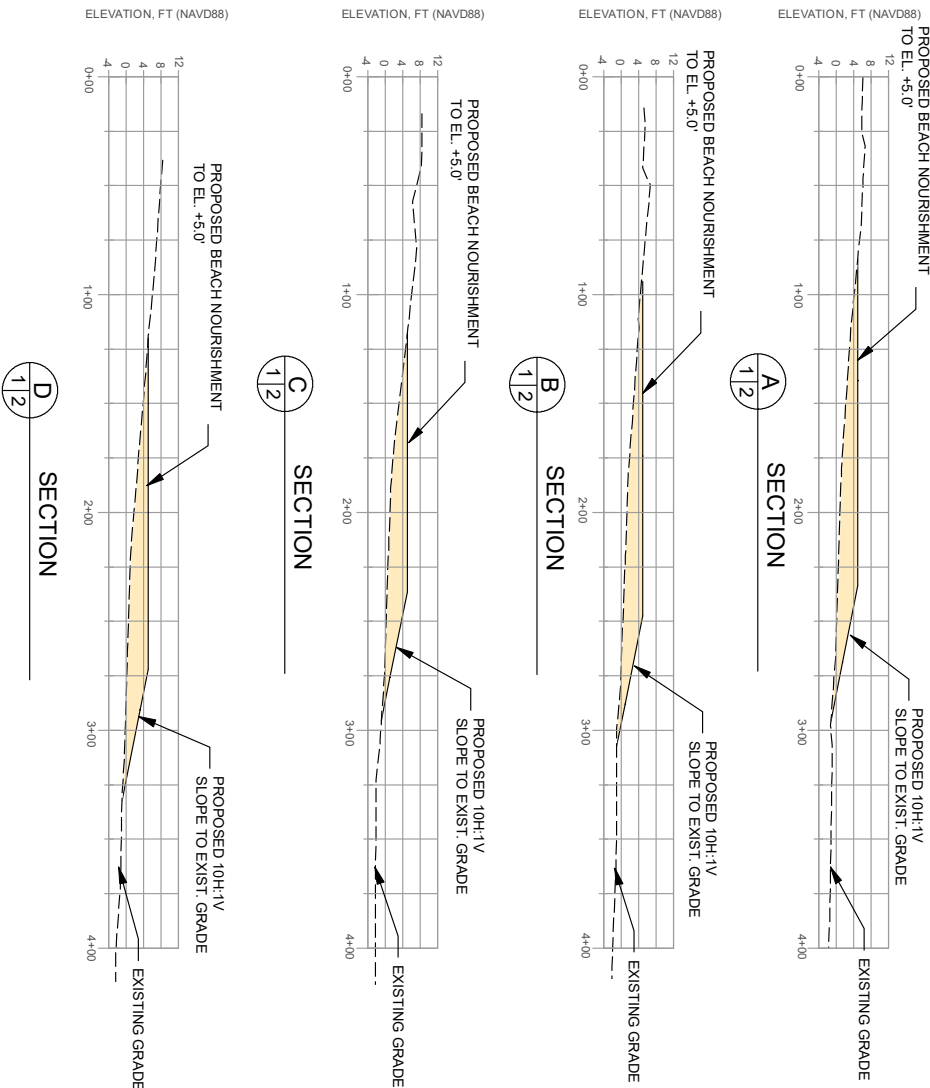
City of Jamaica Beach
Galveston County, Texas

Job No.: 100071464
Scale: 1" = 200 feet
Prepared By: Alms/WH/TS/32
Date: Oct 12, 2020

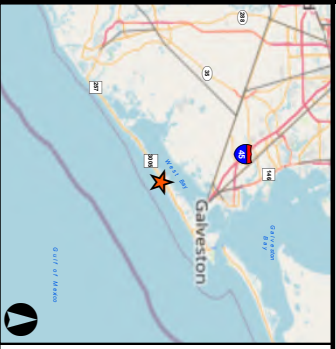
City of Jamaica Beach
Galveston County, Texas

Microsoft Corporation. Earthstar Geographics, LLC. GeoEye, AeroVironment, IGNIA, and DigitalGlobe. Bing Maps Aerial. 2020. 1:2,400; generated by Axtone, using ArcMap. <http://www.bing.com/maps> (28 October 2021)

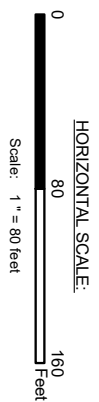
PERMITTED PLANS



REVISED 10/26/2021



- NOTES:
1. SCALES SHOWN EXAGGERATED FOR CLARITY;
 2. VERTICAL: 1 HORIZONTAL
- VERTICAL DATUM IS NAVD88



WATER LEVELS, FT. (NAVD88) GALV	
PLEASE PER, TX, STATION ID: 8771510	
MHHW	+1.43 FT
MHW	+1.23 FT
MWL	-0.22 FT
MLW	-0.61 FT



Sheet 4 of 9
 Jamaica Beach Nourishment
 Section Views
City of Jamaica Beach
 Galveston County, Texas



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Member of the SNC/Lavalin Group TPPerReg. No. F-474

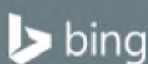
Job No.: 100071464
 Prepared By: Atkins/WH76392

Date: Oct 08, 2020

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PERMITTED PLANS

PERMITTED PLANS



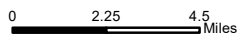
REVISED 10/26/2021



- AUTHORIZED BORROW AREA
- PROPOSED BORROW AREA
- APPROXIMATE LIMITS OF BEACH NOURISHMENT
- BORROW AREA
- PIPING PLOVER CRITICAL HABITAT UNIT

1. SEE SHEETS 6-9 FOR BORROW AREA DETAILS
2. REQUIRES USACE JD AND/OR PERMIT
3. REQUIRES USACE PERMIT

Datum: NAD 1983
 Projection: State Plane
 Texas South Central
 Units: Feet
 Imagery: Bing Maps Aerial



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Member of the SNC-Lavalin Group TBPerReg. No. F-474

Sheet 5 of 9
 Jamaica Beach - Beach Nourishment
 Sand Sources

City of Jamaica Beach
 Galveston County, Texas



Job No.: 100071464	Scale: 1" = 4.5 miles
Prepared By: ATKINS/WHIT6392	Date: Oct 09, 2020

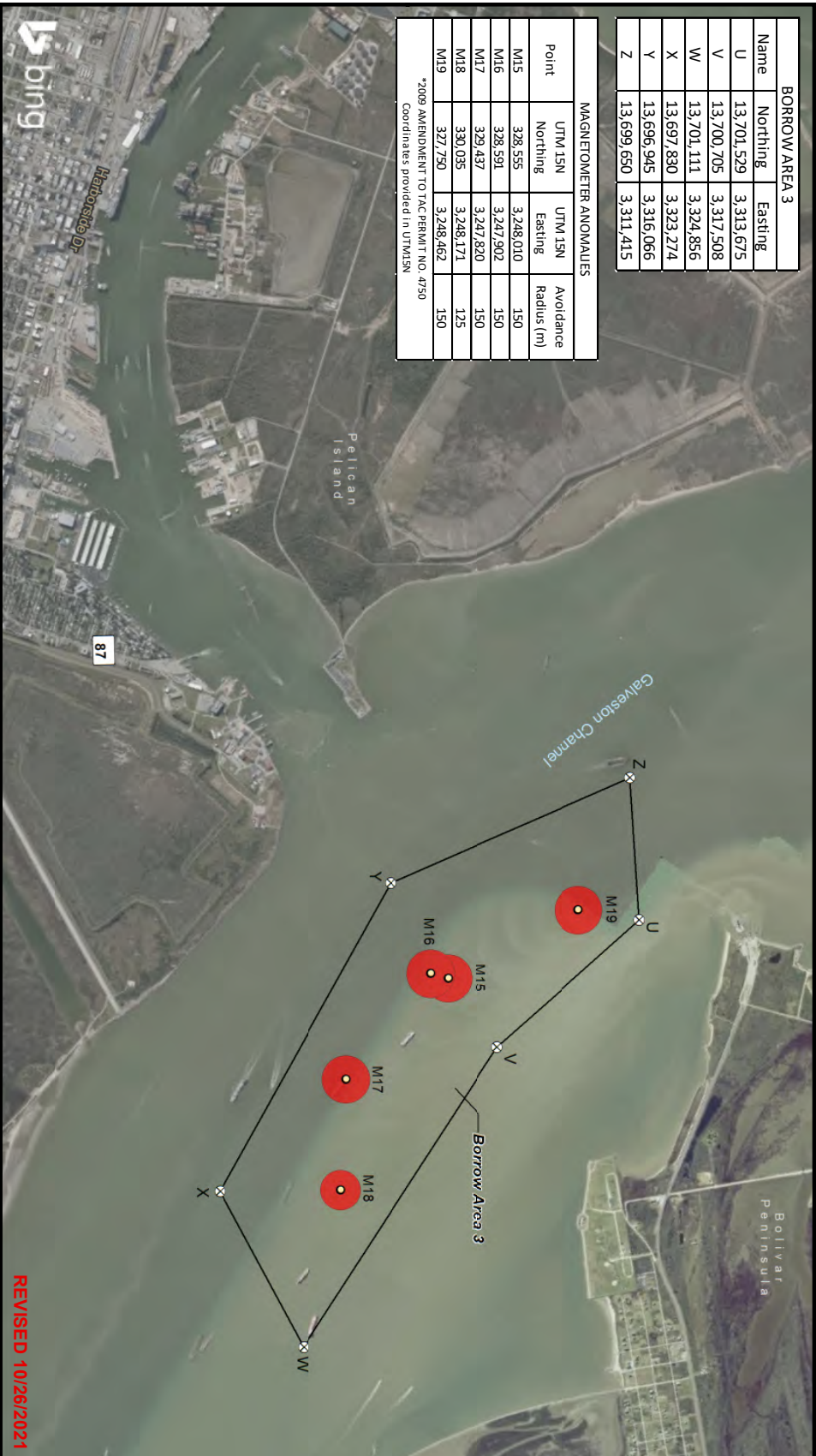
N:\Clients\J\Jamaica_Beach_City_of\100071464\geofigs\permit\permit_sandsource_v5.mxd

Microsoft Corporation, Earthstar Geographics LLC, GeoEye, Harris Corporation, NASA, and DigitalGlobe. Bing Maps Aerial. 2020. 1:285,120; generated by Atkins; using ArcMap. < http://www.bing.com/maps> (26 October 2021)

BORROW AREA 3		
Name	Northing	Eastng
U	13,701,529	3,313,675
V	13,700,705	3,317,508
W	13,701,111	3,324,856
X	13,697,830	3,323,274
Y	13,696,945	3,316,066
Z	13,699,650	3,311,415

MAGNETOMETER ANOMALIES			
Point	UTM 15N Northing	UTM 15N Easting	Avoidance Radius (m)
M15	328,555	3,248,010	150
M16	328,591	3,247,902	150
M17	329,437	3,247,820	150
M18	330,035	3,248,171	125
M19	327,750	3,248,462	150

*2009 AMENDMENT TO TAC PERMIT NO. 4750
Coordinates provided in UTM15N



- ⊗ COORDINATES
- MAGNETOMETER ANOMALY
- AVOIDANCE RADIUS
- SUBMERGED BORROW AREA BOUNDARY

Datum: NAD 1983
Projection: State Plane
Texas South Central
Units: Feet
Datum: Bing Maps Aerial

0 1,500 3,000 Feet

ATKINS
Member of the SNC-Lavalin Group TBPREG. No. F-474

Sheet 6 of 9
Jamaica Beach Nourishment
Authorized Borrow Areas
City of Jamaica Beach
Galveston County, Texas

Job No.: 100071464 Scale: 1" = 3,000 feet
Prepared By: Akhew/HT6392 Date: Dec 08, 2020
K:\Clients\Jamaica_Beach_City_0411007\delgado\sp\perm\perm_borrowarea_06.mxd

REVISED 10/26/2021

Microsoft Corporation, Earthstar Geographics, LLC, GeoEye, Harris Corporation, IGNIA, and DigitalGlobe. Bing Maps Aerial. 2020. 1:36,000; generated by Atkins using ArcMap. <http://www.bing.com/maps> (26 October 2021)

SOUTH JETTY		
Name	Northing	Eastings
I	13,696,434	3,330,395
J	13,696,162	3,336,429
K	13,692,769	3,337,805
L	13,693,282	3,332,723
M	13,693,492	3,331,448
N	13,694,395	3,330,426
O	13,695,190	3,329,078
P	13,695,521	3,328,798
Q	13,695,713	3,328,795
R	13,696,135	3,328,811
S	13,696,306	3,329,220

MAGNETOMETER ANOMALIES			
Point	UTM 15N Northing	UTM 15N Eastings	Avoidance Radius (m)
M1	332,127	3,246,729	80
M2	332,203	3,246,817	100
M3	332,513	3,246,977	100
M4	332,533	3,246,621	35
M5	332,873	3,246,786	75
M7	333,407	3,246,954	75
M9	334,076	3,246,765	75
M10	333,650	3,246,029	75
M11	334,024	3,246,204	75
M12	333,936	3,245,985	80
M13	333,936	3,245,884	125
M14	334,862	3,245,815	75

*2008 TAC PERMIT NO. 4750
Coordinates provided in UTM15N



Datum: NAD 1983
Projection: State Plane
Texas South Central
Units: Feet
Datum: Bing Maps Aerial

- ⊙ COORDINATES
- MAGNETOMETER ANOMALY
- AVOIDANCE RADIUS
- SUBMERGED BORROW AREA BOUNDARY



REVISED 10/26/2021



ATKINS
Member of the SNC Lavelin Group TBPREG. No. F-474

Sheet 7 of 9
Jamaica Beach Nourishment
Authorized Borrow Areas
City of Jamaica Beach
Galveston County, Texas

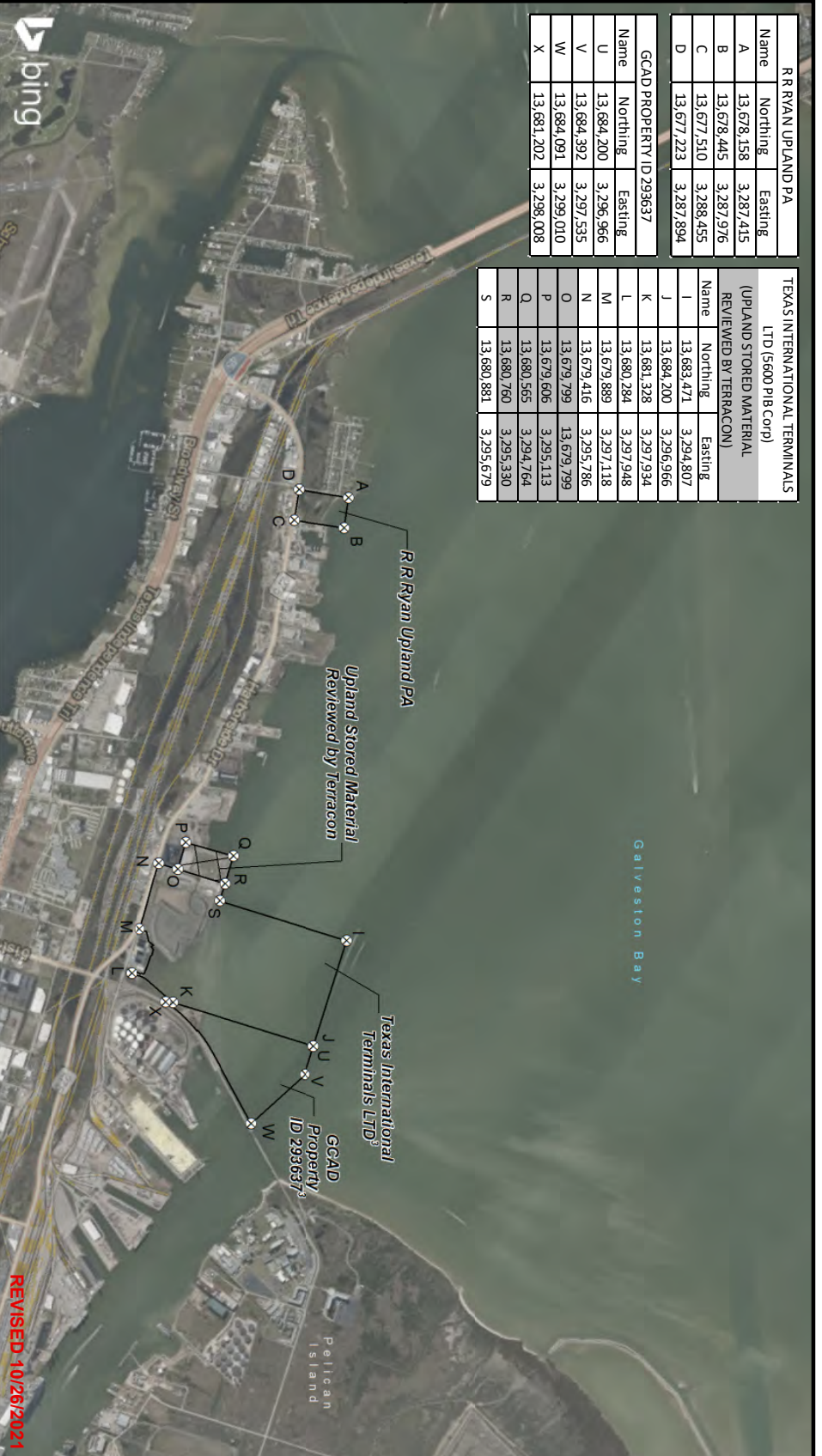
Job No.: 100071464 Scale: 1" = 3,000 feet

Prepared By: Akne/WHT/6392 Date: Dec 08, 2020

City of Jamaica Beach, TX, 501 5007 464/gis/ep/permitemp_sjty_3/and

RR RYAN UPLAND PA		
Name	Northing	Eastng
A	13,678,158	3,287,415
B	13,678,445	3,287,976
C	13,677,510	3,288,455
D	13,677,223	3,287,894

TEXAS INTERNATIONAL TERMINALS LTD (5600 PIB CORP) (UPLAND STORED MATERIAL REVIEWED BY TERRACON)		
Name	Northing	Eastng
I	13,683,471	3,294,807
J	13,684,200	3,296,966
K	13,681,328	3,297,934
L	13,680,284	3,297,948
M	13,679,889	3,297,118
N	13,679,416	3,295,786
O	13,679,799	3,295,113
P	13,679,606	3,295,113
Q	13,680,565	3,294,764
R	13,680,760	3,295,330
S	13,680,881	3,295,679



COORDINATES
 SUBMERGED BORROW AREA BOUNDARY¹
 UPLAND STORED MATERIAL REVIEWED BY TERRACON

1. AREA ENCUMBERED INCLUDES BOTH DREDGE AND MATERIAL PLACEMENT AREA
 2. REQUIRES USAGE JD AND/OR PERMIT
 3. REQUIRES USAGE PERMIT

Datum: NAD 1983
 Projection: State Plane
 Texas South Central
 Units: Feet
 Basemap: Bing Maps Aerial

0 1,500 3,000
 Feet

ATKINS
 Member of the SNC Lavelin Group TBPBEG, No. F-474

Sheet 8 of 9
 Jamaica Beach Nourishment
 Authorized Borrow Areas
 City of Jamaica Beach
 Galveston County, Texas

Job No.: 100071464 Scale: 1" = 3,000 feet
 Prepared By: Akne/WHT/6392 Date: Oct 16, 2020
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REVISED 10/26/2021

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Texas Coastal Ecological Services Field Office
17629 El Camino Real, Suite 211
Houston, Texas 77058
281/286-8282 / (FAX) 281/488-5882



In Reply Refer To:
02ETTX00-2021-F-2716

November 17, 2021

Colonel Timothy Vail
U.S. Army Corps of Engineers
Galveston District
Attn: Regulatory Branch, Katherine Taylor
P.O. Box 1229
Galveston, Texas 77553-1229

Subject: Biological Opinion and Conference Opinion for the City of Jamaica Beach Beach Nourishment Project, Galveston County, Texas.

Dear Colonel Vail:

This transmits the U.S. Fish and Wildlife Service's (Service's) Biological Opinion and Conference Opinion (BOCO) on the proposed issuance of U.S. Army Corps of Engineers (Corps) permit SWG-2020-00774 for the City of Jamaica Beach, to perform beach nourishment activities along Jamaica Beach, in the City of Jamaica Beach, in Galveston County, Texas. Specifically, this BOCO addresses the effects of the proposed permit action on the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*), threatened piping plover (*Charadrius melodus*), the threatened red knot (*Calidris canutus rufa*) and proposed critical habitat for red knot in accordance with Section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. §1531 et seq.). Your letter dated June 03, 2021 requesting formal consultation was received on June 23, 2021.

The Corps determined the proposed project would have no effect on the threatened West Indian Manatee (*Trichechus manatus*), the endangered Attwater's greater prairie chicken (*Tympanuchus cupido attwateri*), eastern black rail (*Laterallus jamaicensis ssp. Jamaicensis*) and the endangered leatherback sea turtle (*Dermochelys coriacea*). No coordination or contact with the Service is necessary for no effect determinations.

Based on a review of project specifics, Service files, status of these species, conversations with species experts, and implementation of the conservation measures as documented in this BOCO, the Service concurs with the Corps' determination that the proposed project may affect, but is not

likely to adversely affect the endangered hawksbill sea turtle (*Eretmochelys imbricate*), loggerhead sea turtle (*Caretta caretta*), and green sea turtle (*Chelonia mydas*).

This BOCO is based on information provided in the Corp's Biological Assessment (BA) dated May 2021, as well as consultation documents; meetings; telephone conversations; e-mails with project proponents; field investigations; correspondence with Service biologist and species experts; and other sources of information. A complete administrative record of this consultation is on file at the Texas Coastal Ecological Services Field Office (TXESFO) in Houston, Texas.

It is important to note that this biological opinion only evaluates the effects of the proposed on-shore permit actions on those species under the Service's jurisdiction. A Memorandum of Understanding (MOU) was signed on July, 18, 1977 acknowledging joint administration of the Act by the Service and the National Marine Fisheries Service (NMFS) in regards to sea turtles. The MOU outlines jurisdiction for sea turtles under the Act and states "The Service shall have sole jurisdiction over sea turtles, including parts or products, when on land and National Marine Fisheries Service (NMFS) shall have sole jurisdiction over sea turtles, including parts or products when in the marine environment" (NMFS and Service 1977). Therefore, only those proposed actions that take place on land (beach sand placement, the temporary DMPA, and the temporary land-based pipeline) were evaluated for effects to sea turtles.

CONSULTATION HISTORY

June 23, 2021	Service receives a letter from the Corps, dated June 03, 2021, initiating formal Section 7 consultation for SWG-2020-00774, along with a BA dated May 2021, evaluating potential impacts to listed species.
July 27, 2021	Service attends a WebEx meeting with Corps to discuss the BA and the formal consultation.
July 27, 2021	Service sends an e-mail to the Corps stating that the BA is adequate and provides the Corps with formal consultation timeline.
October 06, 2021	Email to Corps regarding the extension mutually agreed upon to submit Draft BOCO week of October 13, 2021 and provide a Final BO by November 5, 2021.
October 14, 2021	Draft BOCO sent to Corps for review.

BIOLOGICAL OPINION

DESCRIPTION OF PROPOSED ACTION

Regulations implementing the Act (50 CFR 402.02) define “action” as “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies of the United States or upon the high seas.”

The following is a summary of the proposed action and a detailed description can be found in the Biological Assessment (BA) dated May 2021.

The proposed issuance of Corps permit SWG-2020-00774 would authorize the City of Jamaica Beach to conduct beach nourishment activities approximately 3,300 LF along the City of Jamaica Beach beachfront (29°10'51.25"N, -94°58'22.48" W to 29°10'50.86"N, -94°58'22.95"W) and includes an approximate 200-foot wide area which extends from the dune line of vegetation (approximate +5 foot contour) at the north limit to the approximate -1.5 foot contour seaward, totaling approximately 15.4 acres .

Approximately 65,000 cubic yards of beach-quality sand is anticipated for the nourishment of the beach within the project area. Beach quality sand would be obtained from Corps authorized local upland and submerged borrow areas, as well as beneficial use of dredged beach quality sand from Federal projects when participation in a larger project is feasible. Beach nourishment activities will be conducted mechanically by means of trucks, front-end loaders, bulldozers, cranes, and/or UT/ATVs. Other equipment could include a dredge pipe, booster pumps, generators, lighting, and fuel trucks. In the unlikely event that beach quality sand would have to be delivered to the project area via waterborne transportation (i.e., hopper dredge or barge), a temporary pipeline offshore would be routed perpendicular to the beach placement location.

The Corps permit, if issued, would be valid for five years. Likewise, this BOCO is only valid for five years from the date of the Service’s signature. Any changes, additions or modifications to the permit, or any work conducted by the applicant or others in addition to the permitted activities, are not covered by this BOCO. If activities are to continue beyond the expiration date of the Corps permit (SWG-2020-00774), the City of Jamaica Beach would need to file for an extension of the permit and the Corps will need to re-initiate consultation pursuant to Section 7 of the Act with the Service.

Conservation Measures

When used in the context of the Act, “conservation measures” represent actions pledged in the project description, correspondence and/or meetings that the action agency or the applicant will implement to further the conservation or recovery of the species under review. Such measures should be closely related to the action and should be achievable within the authority of the action agency. Since conservation measures are part of the proposed action, their implementation is required under the terms of the consultation. The Corps and the City of Jamaica Beach have proposed the following conservation measures to avoid and minimize impacts to listed species:

Training and Monitoring

- 1) The City of Jamaica Beach, in coordination with the Corps and other project proponents will ensure crew chiefs, supervisors, and wildlife monitors attend training prior to the initiation of, or their participation in, project work activities. A qualified biologist will conduct training and the scope of training will include: 1) recognition of sea turtles, piping plovers and red knots, their habitats, and tracks; 2) avoidance and minimization measures; 3) reporting criteria and; 4) contact information for different rescue agencies in the area; by use of the wildlife monitoring checklist (Appendix A).
- 2) Training will include a half-day training session coordinated by the City of Jamaica Beach through the Corps, the Service, or the Padre Island National Seashore, on identification of sea turtles, nesting sea turtles, and bird identification. Documentation of this training, including a list of attendees, will be submitted to the Corps and the Service prior to the start of each nourishment project in the permit area and as new members are trained.
- 3) A minimum of one qualified¹ wildlife monitor will be assigned to each active work area. The wildlife monitor will inspect the active work areas prior to the start of work and continuously throughout the work day. Wildlife monitor qualifications will be submitted to the Corps and the Service prior to start of each nourishment project.
- 4) The City of Jamaica Beach will provide the Corps with the name of a single point of contact (POC) responsible for communicating with the crew and the wildlife monitor(s) and reporting on endangered species issues during the project. The wildlife monitor(s) will be on-site to ensure listed species are not affected by beach nourishment activities.
- 5) Prior to the start of work, the City of Jamaica Beach will ensure that the wildlife monitor(s) inspect the beach adjacent to and along work areas before work begins each morning. Wildlife monitors will communicate all activities to the POC and the POC will coordinate that information with the Corps and Service as required.
- 6) Prior to the start of work each day, all contractors, work crews, drivers, etc., will attend a brief training on the recognition of sea turtle, piping plovers, red knots, and their habitats and updated on the previous days encounters, if any, with nesting or injured wildlife.

Piping Plovers and Red Knots - wintering season begins July 15 extending through May 15

- 7) The POC and/or wildlife monitor(s) will be on-site to ensure piping plovers and red knot are not affected by beach nourishment activities. The POC and/or monitor(s) will ensure that loafing and/or resting piping plovers and red knots are not in the project area during nourishment activities.

¹ A qualified wildlife monitor can correctly identify the federally listed species that may occur within the action area of the project and provide documentation that supports experience with species identification.

- 8) The POC and/or monitor(s) will check under and around vehicles and heavy equipment before they are moved. The POC and/or monitor(s) should be aware that piping plovers and red knots are especially vulnerable during periods of cold temperature, inclement weather, and when roosting at night. Construction workers will immediately notify the POC and/or monitor(s) if listed species occur in the immediate project area. If a piping plover and/or red knot are found in the active work area, work will be stopped within an area specified, by the POC and/or wildlife monitor, until all birds leave the construction site. Equipment will remain powered off until all birds have left. If the bird or birds do not relocate (e.g., injured bird), the Service will be contacted to solicit additional guidance.
- 9) Disturbed areas of the beach (e.g., ruts, tread marks) will be smoothed out and loosened upon the completion of each work day.

Sea Turtles - peak nesting season begins March 15 extending through October 1

- 10) Placement of sand for beach nourishment will be conducted, when possible, outside of the sea turtle nesting season, which occurs from March 15 to October 1.
- 11) The City of Jamaica Beach, in coordination with the Corps, will ensure that daily turtle patrols of the proposed beach nourishment area are conducted by the wildlife monitor are conducted prior to the start of work each day, and continuously throughout the work day. No equipment will be powered on and/or working until the wildlife monitor(s) is present and the equipment inspections are complete.
- 12) If a sea turtle (dead or alive) or nest is located or identified, the sighting will be documented on the Wildlife Monitoring Checklist (attached), and beach nourishment activities will immediately cease within 100 feet of the nest or turtle. The monitor will then call 1-866-TURTLE5 (1-866-887-8535). All turtles, turtle nests, or turtle eggs found during beach nourishment activities will be safeguarded until they can be re-located by properly permitted individual(s).
- 13) Contractors will use the minimum amount of light necessary through reduced wattage, shielding, lowering, and/or the use of low pressure sodium lights during the project construction to minimize the potential effects of artificial lighting on sea turtles.

Construction, Equipment, and Designated Work Area

- 14) Beach nourishment activities will be conducted mechanically by means of trucks, front-end loaders, bulldozers, cranes, and/or UT/ATVs. Other equipment could include a dredge pipe, booster pumps, generators, lighting, and fuel trucks.
- 15) Materials and equipment required for the project will be staged in upland areas and transported as needed to the proposed work sites. Staging areas will be designated before work begins and will be solely within the construction footprint. Equipment may be fenced within these staging areas.

- 16) Construction vehicles will access the beach from public roads closest to the work sites to reduce unnecessary vehicle traffic on the beach.
- 17) Ingress/egress routes will be flagged/marked with wooden laths/stakes to ensure that work activities remain within the approved project area. These items will be removed once work is completed in designated areas.
- 18) The contractor will coordinate and sequence the work to minimize the frequency and density of vehicular traffic on the beach to the greatest extent practicable. Construction crews and vehicles will avoid the swash zone and the wrack line closest to the swash zone when possible. The swash zone is defined as the area of the beach intermittently covered and uncovered by wave run-up. The wrack line is defined as the vegetative area made up of sargassum, shell hash, vegetation, some light trash and litter, and other materials.
- 19) The number of vehicles transiting from upland areas to the project sites will be kept to a minimum. All vehicles will use the same pathways and access will be confined to the closest access point to the immediate work area. Construction/nourishment activities will occur from the landward side of the beach nourishment area whenever possible.
- 20) Vehicles will adhere to a reduced speed of 15 miles per hour, the speed limit already prescribed for Texas beaches in the Texas Transportation Code #545.352(b)(5).
- 21) The use of construction lighting at night shall be minimized, directed toward the construction activity area, and shielded from view outside of the project area to the maximum extent practicable.

Beach Quality and Placement

- 22) Only sand that meets the specifications of local beach quality sand (e.g., grain size, color, composition and mineralogy) will be used for beach nourishment activities. The Texas General Land Office provides Beach/Dune guidelines for placing sand and material seaward of the dune protection line in the Texas Administrative Code (TAC 2019); specifically, in 31TAC § 15.4 (c)(2) and (3). These rules specifically prohibit the placement of sand, soil, sediment or dredged material that is of an unacceptable mineralogy or grain size when compared to natural or native sediments found on the site. These rules also provide that material intended for beach placement must not contain hazardous substances as found in Volume 40 of the Code of Federal Regulations, Part 302.4.
- 23) Sand will be placed and maintained at a gradual slope to minimize scarping.
- 24) After project construction in an active work zone is complete for the day the project site will be graded, and all vehicular ruts removed.

Post Construction and Public Outreach

- 25) Prior to beach nourishment activities, public outreach will be initiated by the City of Jamaica Beach to educate surrounding residents about the project and piping plovers, red knots, and sea turtles. Public outreach includes federally listed species education signs installed at beach access points within the action area.

Action Area

The action area for the proposed project includes the beach nourishment area, all the authorized sand source borrow areas, main haul routes to and from the borrow areas to the beach placement area, and temporary offshore pipeline route. The beach nourishment construction footprint extends approximately 3,300 LF along the City of Jamaica Beach beachfront (29°10'51.25"N, -94°58'22.48" W to 29°10'50.86"N, -94°58'22.95"W) and includes an approximate 200-foot wide area which extends from the base of the dune line (approximate +5 foot contour) at the north limit to the approximate -1.5 foot contour seaward, totaling approximately 15.4 acres. Maps of the action area can be found in the attachments associated with the BA dated May 2021.

STATUS OF THE SPECIES AND CRITICAL HABITAT

Kemp's Ridley Sea Turtle

Species Description

The Kemp's ridley sea turtle was listed as endangered throughout its entire range on July 28, 1978 (43 FR 32800). Kemp's ridleys are the smallest of the sea turtles, reaching about 2 feet (0.6 meters) in length and can weigh up to 100 pounds (45 kilograms). The adult has an unusually broad, heart-shaped, keeled upper shell that is serrated behind the bridge or midsection, almost as wide as it is long, and is usually olive-gray. The upper shell has five pairs of scales or plates along the sides. In the bridge hooking the lower shell to the upper shell, there are four infra-marginal plates, each perforated by a pore. The lower shell is a light, yellowish color. The head has two pairs of prefrontal scales. The Kemp's ridley has a triangular-shaped head with a somewhat hooked beak with large crushing surfaces. Juveniles have a dark-charcoal colored shell that changes to olive-green or gray with age.

Critical Habitat

Critical habitat has not been designated for this species.

Distribution and Abundance

Kemp's ridleys occur in the Gulf of Mexico and along the Atlantic coast of the U.S., with nesting locations concentrated on coastal areas of Rancho Nuevo, Mexico. Approximately 99.9 percent of known nests are found on the coastal beaches of Tamaulipas and Veracruz, with approximately 21,000 nests protected in 2011. In 2017, approximately 27,000 nests were documented with 353 in Texas, 24,586 in Tamaulipas, and 2,000 located in Veracruz, Mexico (Gaskil 2018). In 2020, 262 nests were found and protected along Texas beaches (pers. Comm. D. Shaver, PAIS 2021).

Habitat

Habitat includes areas that shelter the turtle from high winds and waves, with forage areas that include seagrass, oyster reefs, sandy bottoms, mud bottoms, and rock outcroppings. Their diet consists primarily of crabs, shrimp, snails, sea urchins, sea stars, fish and occasionally marine plants (TPWD 1995). Preferred habitat for this species is shallow coastal and estuarine waters and occurs in the bays on the middle and upper Texas coast with regularity.

Life History

Nesting occurs primarily on beaches around Rancho Nuevo, Tamaulipas, Mexico, from April to June each year; however, Kemp's ridley nests have been recorded in Mexico as early as March and as late as August (Gaskil 2018). During preferred nesting conditions, which are precipitated by strong winds, the females come ashore, often in groups called "arribadas." Kemp's ridleys are predominately daytime nesters. Although some females breed annually, this species is considered to nest biannually and may nest as many as three times in a single season (Service and NMFS 2011), producing an average of 2.5 clutches. Clutch size averages between 100-110 eggs. Hatchlings emerge after approximately 50 days of incubation. Sexual maturity is believed to be reached between 10 to 15 years of age. Some fidelity to nesting sites has been shown by Kemp's ridleys, both within one nesting season, and between nesting seasons (PIAS 2018; Burchfield, et. al. 2002). If conditions are unsuitable on a nesting beach or the female is disturbed, she may return to the water and attempt to nest elsewhere within several kilometers of the first site. The disturbance could also cause her to switch nesting beaches entirely (PIAS 2018). After the nesting season, adults migrate to feeding areas in the Gulf of Mexico and remain there until the next reproductive season. Hatchlings that successfully emerge from the nest and enter the ocean are essentially pelagic for approximately two years (Ernst et. al. 1994).

Population Dynamics

Kemp's ridley sea turtle numbers have precipitously declined since 1947, when more than 40,000 nesting females were estimated in a single arribada (Service and NMFS 2011). The nesting population produced a low of 702 nests in 1985 (Service and NMFS 2011). Since the mid-1980s, the number of nests laid in a season has been steadily increasing, primarily due to nest protection efforts and implementation of regulations requiring the use of turtle excluder devices (TEDs) in commercial fishing trawls. Today, the population of Kemp's ridleys appears to be in the early stages of recovery, as can be seen along the Texas Coast (PAIS 2021).

Reasons for Listing/Threats to Survival

Several factors contributed to the decline of sea turtle populations along the Atlantic and Gulf coasts, including commercial over-utilization of eggs and turtle parts, incidental catches during commercial fishing operations, disturbance of nesting beaches by coastal housing, marine pollution, and entanglement and ingestion of debris (Service and NMFS 2011). Additional threats are expanding human populations adjacent to important nesting beaches, degradation of coastal foraging habitats, and the potential effects of global warming on sex ratios (NMFS and Service 2007).

Recovery Efforts

Conservation efforts to lessen threats include protection of major nesting beaches, use of TEDs in commercial fishery trawls, regulations for limiting incidental take among fisheries, and

management of favorable coastal and marine habitat (NMFS and Service 1991b). Each year, Kemp's ridley nests at Rancho Nuevo and other major nesting beaches in the Mexican states of Tamaulipas and Vera Cruz. They are actively protected from human and mammalian predation, resulting in increased hatching success rates.

In 1978, a cooperative project involving the National Park Service's Padre Island National Seashore (PAIS), NMFS, the Service, the Texas Parks and Wildlife Department, the Gladys Porter Zoo (Brownsville, TX), and Mexican federal and state agencies was initiated to re-establish a nesting colony of Kemp's ridley sea turtles in the U.S. Eggs were collected in Mexico from 1978 to 1988 and transported to PAIS for incubation. Hatchlings were released onto the beach, allowed to enter the water, and then immediately recaptured and raised in "head start" facilities in Galveston, Texas for approximately 9 to 11 months before being released into the Gulf of Mexico.

In 1986, the National Park Service initiated a program to detect, monitor, and protect sea turtle nests at PAIS. Detection involves patrols to look for nesting activity, public education, and investigation of reports from patrols, beach workers, and the public. Patrol efforts involving multiple federal, state, local, university and non-governmental agencies are now conducted on most Texas beaches from April 1 to July 15 each year.

Since 1996, some turtles experimentally imprinted to Padre Island or otherwise head-started have returned to PAIS and the nearby vicinity to lay eggs (Shaver 1997, 1998, 1999a, 1999b; Shaver and Caillouet 1998). However, the majority of Kemp's ridley sea turtles that nest in Texas each year are from wild stock.

Piping Plover

For the purpose of this action, discussions will be focused on the Texas wintering piping plover population.

Species Description

The piping plover was federally listed as endangered in the Great Lakes watershed, and as threatened elsewhere in its range, on January 10, 1986 (50 FR 50726). The piping plover is a small North American shorebird approximately 7 inches (17.7 centimeters) long with a wingspread of about 15 inches (38.1 centimeters). Breeding birds have white under parts, light beige back and crown, white rump, and black upper tail with a white edge. In flight, each wing shows a single, white wing stripe with black highlights at the wrist joints and along the trailing edges. Breeding plumage characteristics are a single black breast band, which is often incomplete, and a black bar across the forehead. The black breast band and brow bar are generally more pronounced in breeding males than females. The legs and bill are orange in summer, with a black tip on the bill (Service 2003).

Critical Habitat

Critical habitat does not occur within the proposed action area.

Distribution and Abundance

Piping plovers breed only in North America within three geographic regions that encompass three distinct breeding populations: the Northern Great Plains, the Great Lakes, and the Atlantic Coast. The winter ranges of the different breeding populations overlap, making it impossible to distinguish the source population of a wintering bird unless it has been banded or marked on the breeding grounds. The piping plover's primary winter range is along the Atlantic and Gulf coasts from North Carolina to Mexico, and into the Bahamas and West Indies (Service 1985). Southward migration to the wintering grounds along the southern Atlantic coast and Gulf of Mexico shoreline extends from late July, August, and September. Individuals can be found on their wintering grounds throughout the year, but sightings are rare in May, June, and early July (Service 2003).

Habitat

In most areas, wintering piping plovers depend on a mosaic of sites distributed through the landscape, as the suitability of a particular site for foraging or roosting is dependent on local weather and tidal conditions (Drake 1999). Plovers move among sites as environmental conditions change. In general, wintering piping plovers forage mostly on benthic invertebrates, insects, and crustaceans found within the intertidal areas of ocean beaches, wash over areas with no or very sparse emergent vegetation, mudflats, sandflats, wrack lines; and shorelines of coastal ponds, lagoons or salt marshes. Roosting areas may be un-vegetated or sparsely vegetated and may have debris, detritus, or micro-topographic relief offering refuge to plovers from high winds and cold weather.

Life History

Behavioral observations of piping plovers on the wintering grounds suggest that they spend the majority of their time foraging (Nicholls and Baldassarre 1990, Drake 1999, Service 2003). When not foraging, plovers undertake various maintenance activities such as roosting, preening, bathing, aggressive encounters (with other piping plovers and other species), and moving among available habitat locations (Zonick and Ryan 1996). Individual plovers tend to return to the same wintering sites year after year (Nicholls and Baldassarre 1990, Drake 1999, Service 2003).

Population Dynamics

The Texas coast is a major wintering area for piping plovers, and may provide habitat for about 55 percent of birds found during winter censuses (Nicholls and Baldassarre 1990, Haig and Plissner 1993, Drake 1999, Elliott-Smith et. al. 2009). Since piping plovers spend 55 to 80 percent of their annual cycle associated with wintering areas, factors that affect their wellbeing on the wintering grounds could substantially affect their survival and recovery (Service 1996). A consistent finding of all analyses of the demographic factors affecting the persistence and/or extinction of piping plover populations is that vulnerability to extinction is greatly increased by even small declines in survival rates (Melvin and Gibbs 1994; Plissner and Haig 2000a) Modeling by Melvin and Gibbs (1994).

Reasons for Listing/Threats to Survival

Threats to piping plover populations and habitat are similar on the breeding and wintering ranges. Habitat destruction and degradation are pervasive and have reduced physically suitable habitat. Human disturbance and predators further reduce breeding and wintering habitat quality

and affect survival. Contaminants, as well as genetic and geographic consequences of small population size, pose additional threats to piping plover survival and reproduction (Service 2003).

A variety of human-caused disturbance factors have been noted that may affect plover survival or utilization of wintering habitat. Those factors include human disturbance such as recreational activities, inlet and shoreline stabilization projects, dredging of inlets that can affect spit formation, beach maintenance and nourishment, and pollution (Nicholls and Baldassarre 1990, Haig and Oring 1985, Haig and Plissner 1993). In some areas, natural erosion of barrier islands may also result in habitat loss.

Recovery Efforts

The Atlantic Coast Piping Plover Recovery Plan (Service 1996) calls for the protection of all known wintering habitat by preventing habitat degradation and disturbance, including direct and indirect impacts of shoreline stabilization, navigation projects, development, disturbance by recreationists and their pets, and contamination and degradation due to oil or chemical spills. Factors that must be considered include: (1) disturbance depleting the birds' energy reserves, and (2) effects on prey availability that may last long after the completion of a given action. The Great Lakes and Northern Great Plains Piping Plover Recovery Plan (Service 1988) and the Recovery Plan for the Great Lakes Piping Plover (Service 2003) also call for protecting wintering piping plovers and managing their habitats to promote survival and recovery.

Adult survival is key to the continued and long-term existence of the piping plover and to stepwise improvement toward meeting its recovery criteria. Protecting the wintering grounds allows adult piping plovers to maintain adequate body reserves so they survive the winter and can migrate back to nest grounds in the spring. Broad management actions on the wintering grounds include protection of resting areas, designation of important shorebird wintering sites and regular shorebird surveys.

Red Knot

Species Description

There are six recognized subspecies of red knots (*Calidris canutus*), and on December 11, 2014, the Service published the final rule listing the rufa subspecies of red knot (*Calidris canutus rufa*) as a threatened species under the Act; that rule became effective on January 12, 2015. (Throughout this document, the "rufa red knot" will be referred to as the "red knot" unless there is specific reference to a distinct subspecies.) For the full, detailed discussion of the entire life history and biology of the species, please reference the Service's final rule for the listing of the species (Service 2014) and its supplemental document, *Rufa Red Knot Background Information and Threats Assessment*.

The red knot is a medium-sized shorebird about 9 to 11 inches in length. The red knot is easily recognized during the breeding season by its distinctive rufous (red) plumage. Nonbreeding plumage is dusky gray above and whitish below. Juveniles resemble nonbreeding adults, but the feathers of the scapulars and wing coverts are edged with white and have narrow, dark bands, giving the upperparts a scalloped appearance (Davis 1983).

Critical Habitat

Critical habitat was proposed on July 15, 2021 for red knots (86 FR 37410). Currently the proposed critical habitat includes 120 units in Massachusetts, New York, New Jersey, Delaware, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas. A total of approximately 649,066-ac (262,667-ha) were proposed to be designated critical habitat. There were 11 proposed critical habitat units [approximately 186,241-ac (75,369-ha) proposed to be designated in Texas. These areas were believed to contain the essential physical and biological elements for the conservation of red knots, and the physical features necessary for maintaining the natural processes that provides appropriate foraging, roosting, and sheltering habitat components.

Distribution and Abundance

The red knot's range spans 40 states and 24 countries, and extends from the species' breeding grounds in the Canadian Arctic, to its migration stopover areas along the Atlantic and Gulf coasts of North America, to its wintering grounds throughout the Southeastern U.S., the Gulf coast, and South America (reaching as far south as Tierra del Fuego at the southern tip of South America). In Delaware Bay and Tierra del Fuego, the era of modern surveys for the red knot and other shorebird species began in the early 1980s. Systematic red knot surveys of other areas began later, and for many portions of the knot's range, available survey data are patchy. Prior to the 1980s, numerous natural history accounts were available and provide mainly qualitative or localized population estimates. Nonetheless, a consistent narrative emerges across many historical accounts that red knots were extremely abundant in the early 1800s, decreased sharply starting in the mid-1800s, and may have begun to recover by the mid-1900s. Most writers agree the cause of that historical decline was intensive sport and market hunting. It is unclear whether the red knot population fully recovered its historical numbers following the period of unregulated hunting (Harrington 2001).

Habitat

Habitats used by red knots in migration and wintering areas are generally coastal marine and estuarine habitats with large areas of exposed intertidal sediments. In many wintering and stopover areas, quality high-tide roosting habitat (i.e., close to feeding areas, protected from predators, with sufficient space during the highest tides, free from excessive human disturbance) is limited (Kalasz 2012 pers. comm.; Niles 2012 pers. comm.). The supra-tidal (above the high tide) sandy habitats of inlets provide important areas for roosting, especially at higher tides when intertidal habitats are inundated (Harrington 2008). In some localized areas, red knots will use artificial habitats that mimic natural conditions, such as nourished beaches, dredged spoil sites, elevated causeways, and impoundments; however, there is limited information regarding red knot use of such artificial habitats.

In North America, red knots are commonly found along sandy, gravel, or cobble beaches, tidal mudflats, salt marshes, peat banks, and shallow coastal impoundments, ponds, and lagoons along the Atlantic coast (Cohen et al. 2010; Cohen et al. 2009; Niles et al. 2008; Harrington 2001; Truitt et al. 2001). In Florida, the birds also use mangrove and brackish lagoons. Along the Texas coast, red knots forage on beaches, oyster reefs, and exposed bay bottoms and roost on

high sand flats, reefs, and other sites protected from high tides. Red knots also show some fidelity to particular migration staging areas between years (Duerr et al. 2011; Harrington 2001).

Life History

Little information is available about nonbreeding red knots. Unknown numbers of nonbreeding red knots remain south of the breeding grounds during the breeding season, and many, but not all, of these red knots are 1-year-old (i.e., immature) birds (Niles et al. 2008). Nonbreeding red knots, usually individuals or small groups, have been reported during June along the U.S. Atlantic and Gulf coasts, with smaller numbers around the Great Lakes and Northern Plains in both the United States and Canada (EBird.org 2012). There is also little information on where juvenile red knots spend their winter months (Service and Conserve Wildlife Foundation of New Jersey 2012), and there may be at least partial segregation of juvenile and adult red knots on the wintering grounds. All juveniles of the Tierra del Fuego wintering region are thought to remain in the Southern Hemisphere during their first year of life, possibly moving to northern South America, but their distribution is largely unknown (Niles et al. 2008). Because there is a lack of specific information on juvenile red knots, the Service uses the best available data from adult red knots to draw conclusions about juvenile foraging and habitat use.

Population Dynamics

Localized and regional red knot surveys have been conducted across the subspecies' range with widely differing levels of geographic, temporal, and methodological consistency. Available survey data are presented in detail in the Service's supplemental document to the December 11, 2014, final rule, *Rufa Red Knot Background Information and Threats Assessment* (Service 2014). However, some general characterizations of the available data are noted as follows:

- No population information exists for the breeding range because, in breeding habitats, red knots are thinly distributed across a huge and remote area of the Arctic. Despite some localized survey efforts, (e.g., Bart and Johnston 2012; Niles et al. 2008), there are no regional or comprehensive estimates of breeding abundance, density, or productivity (Niles et al. 2008).
- Few regular surveys are conducted in fall because southbound red knots tend to be less concentrated than during winter or spring.
- Some survey data are available for most wintering and spring stopover areas. For some areas, long-term data sets have been compiled using consistent survey methodology.
- Because there can be considerable annual fluctuations in red knot counts, longer-term trends are more meaningful. At several key sites, the best available data show that numbers of red knots declined and remain low relative to counts from the 1980s, although the rate of decline appears to have leveled off since the late 2000s.
- Inferring long-term population trends from various national or regional datasets derived from volunteer shorebird surveys and other sources, NPS (2013), Andres (2009) and Morrison et al. (2006) also concluded that red knot numbers declined, probably sharply, in recent decades.

Reasons for Listing/Threats to Survival

The Service has determined that the red knot is threatened due to loss of both breeding and nonbreeding habitat; likely effects related to disruption of natural predator cycles on the breeding

grounds; reduced prey availability throughout the nonbreeding range; and increasing frequency and severity of asynchronies (“mismatches”) in the timing of the birds’ annual migratory cycle relative to favorable food and weather conditions. Main threats to the red knot in the United States include: reduced forage base at the Delaware Bay migration stopover; decreased habitat availability from beach erosion, sea level rise, and shoreline stabilization in Delaware Bay; reduction in or elimination of forage due to shoreline stabilization, hardening, dredging, beach replenishment, and beach nourishment in Massachusetts, North Carolina, and Florida; and beach raking which diminishes red knot habitat suitability. These and other threats in Canada and South America are detailed in the final listing rule (Service 2014). Unknown threats may occur on the breeding grounds.

ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR 402.02) define the environmental baseline as the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency’s discretion to modify are part of the environmental baseline.

Status of the Species and Critical Habitat within the Action Area

Kemp’s Ridley Sea Turtle

The majority of Kemp’s ridley sea turtles nest on the coastal beaches of the Mexican states of Tamaulipas and Veracruz, although a very small number of Kemp’s ridleys consistently nest along the Texas coast. Historic nesting frequency on the south Texas coast is poorly known and only six Kemp’s ridley sea turtles were documented prior to 1979 (Shaver and Caillouet 1998). However, 1,185 Kemp’s ridley nests were found on the Texas coast between 1979 and 2011 (Dr. D. Shaver, National Park Service, pers. comm. 2011). An additional 78 have been documented from 2012 to 2018 along the upper Texas Coast.

Kemp’s ridley sea turtles nest on Galveston Island and surrounding areas on the upper Texas coast, from Matagorda Peninsula northward to Sabine Pass. In 2018, 250 Kemp’s ridley nests were found in Texas, 15 of which were on the upper Texas coast with 2 of those occurring along Galveston Island (Shaver 2018).

There have been 86 Kemp’s ridley sea turtle nests recorded on Galveston Island since 2002, with the highest count of 15 in 2011 (Shaver 2018, PAIS 2018). The entire 3,330 LF area proposed for beach nourishment is considered suitable habitat for nesting Kemp’s ridley sea turtles.

Piping Plover

The piping plover winters along the upper Texas coast (Haig and Oring 1985, Haig and Plissner 1993). Piping plovers begin arriving in July; however, late-nesting birds can arrive as late as September. A few individuals can be found throughout the year, but sightings are rare in late May, June, and early July. Piping plovers begin leaving the Texas coast in late February to migrate back to the breeding sites, and by late May, most birds have left the region (Haig and Elliott-Smith 2004).

The exact number of piping plovers that winter in Texas and on Galveston Island is unknown. However, an international piping plover winter census counted 1,904 wintering piping plovers in Texas in 1991, 1,333 in 1996 and 1,042 in 2001 (Haig and Plissner 1993, Plissner and Haig 2000b, Haig et. al. 2005). In 2006, a range-wide census was again conducted for breeding and wintering plovers. The 2006 wintering census consisted of one-time counts by qualified observers during a designated two-week period of time (January 23-February 6, 2006). The 2006 wintering piping plover census recorded a total of 3,884 individual plovers range-wide, with 2,090 individuals recorded in Texas and 114 individuals recorded on the west end of Galveston Island (Elliott-Smith et. al. 2009). In 2016, thirteen individuals were documented along the west end during IPPC census. Within the project boundaries, eBird observations for the piping plover document a range from one individual up to 9 individuals in one location (eBird 2021).

It is important to note that the presence or absence of piping plovers at any given location or time of year cannot be determined by the above mentioned IPPC or observations from eBird, which is limited to a single observation within a specific period of time. Piping plovers may occur throughout the action area in varying numbers and concentrations depending on annual population fluctuations, time of year, and local weather and tidal conditions.

The entire 3,300 LF area proposed for beach nourishment is considered suitable habitat for wintering piping plovers.

Piping Plover Critical Habitat

No piping plover critical habitat occurs within the action area.

Red Knot

There are no current estimates for the size of the red knot population that makes up the Northwest Gulf of Mexico wintering group (i.e., red knots from Mexico to Louisiana). The best available current estimates for portions of this wintering region are about 2,000 red knots in Texas (Niles 2012a), or about 3,000 in Texas and Louisiana, with about half in each state, and movement of birds between states (C. Hunter pers. comm. September 20, 2012).

From survey work in the 1970s, Morrison and Harrington (1992, p. 77) reported peak winter counts of 120 red knots in Louisiana and 1,440 in Texas, although numbers in Texas between December and February were typically in the range of 100 to 300 birds. Records compiled by

Skagen *et al.* (1999) give peak counts of 2,838 and 2,500 red knots along the coasts of Texas and Louisiana, respectively, between January and June, from 1980 to 1996, but these figures could include spring migrants. Morrison *et al.* (2006, p. 76) estimated only about 300 red knots winter along the Texas coast, based on surveys in January 2003 (Niles *et al.* 2008, p. 19). Higher counts of roughly 700 to 2,500 knots have been made on Padre Island, Texas, during October, which could include wintering birds (Newstead *et al.* 2013, p. 54; Niles *et al.* 2008, p. 1).

The total number of red knots that winter in Texas and on Galveston Island is unknown. Assessing the number of red knots within the action area during winter and migration periods is difficult as there is human disturbance throughout the year and the number of birds utilizing the area varies daily, monthly, seasonally, and from year to year. eBird observations for red knot document a range from one individual up to 2 individuals within the action area. (eBird 2020).

The entire 3,300 LF area proposed for beach nourishment is considered suitable habitat for wintering red knots.

Red Knot Critical Habitat

The proposed project occurs within a proposed critical habitat unit published on the Federal Register for review on July 15, 2021 (86 FR 37410). All of the 15.4-ac beach nourishment area is within the proposed TX-2 unit for red knots. The proposed project area would occur in approximately 2.54% (15-ac out of 590-ac) of the proposed TX-2 critical habitat unit. Red knots may use these critical habitat units for foraging, roosting or sheltering. Texas has 11 proposed critical habitat units that would protect approximately 186,369-ac of red knot habitat. The proposed action would occur within approximately 0.008% of Texas's proposed red knot critical habitat.

EFFECTS OF THE ACTION

Under section 7(a) (2) "effects of the action" refers to the direct and indirect effects of an action on a species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action. The effects of the proposed action are added to the environmental baseline to determine the future baseline that serves as the basis for the determination in this biological opinion. The impacts discussed below are the Service's evaluation of the direct and indirect effects of the proposed action. Indirect effects are those caused by the proposed action that occur later in time, but are still reasonably certain to occur (50 CFR 402.02).

Kemp's Ridley Sea Turtles

Direct Effects

Even when turtle monitors are employed, sea turtles, hatchlings or eggs could be harmed by construction activities. For instance, Schroeder (1994) found that even under the best of conditions, experienced sea turtle nest surveyors can misidentify about seven percent of nesting attempts as false crawls, in which a female turtle comes ashore to nest but returns to the water without digging a nest or laying eggs. Weather, tides, and off-road recreational vehicle tracks

can obscure sea turtle tracks, especially after night nesting and before morning surveys. Turtle patrollers and/or monitors locate nests primarily by searching for the tracks left in the sand and locating females during their nesting activity. However, nesting turtles do not always leave visible tracks on the beach, particularly in areas with very hard packed sand, very soft and blowing sand, and thick seaweed. The passage of heavy equipment or construction vehicles could remove sea turtle tracks, making it difficult for the monitor to find a nest for investigation and protection.

Burial of Sea Turtles, Eggs, or Hatchlings

Deposition of sand for beach nourishment on approximately 3,300 LF of beach could harm adult female sea turtles that attempt to nest in the action area during nourishment activities, but remain undetected by sea turtle monitors and/or construction crews. Likewise, undetected nests could be buried by sand resulting in crushing of eggs or hindering hatchlings from climbing out of the nest and reaching the ocean.

Collisions with Heavy Equipment and Vehicles

Operation of heavy equipment on the beach can crush nesting turtles, stranded turtles, hatchlings, and eggs (Mann 1977; NMFS and Service 1991a, 1991b, 1992, 1993; Ernest et al. 1998). Sea turtles on the beach at some stage of nesting may be difficult to see, and may be hit by vehicles or heavy equipment. Hatchlings may emerge at night or early in the morning from in-situ nests and may be missed by sea turtle monitors. Because of their extremely small size, live hatchlings on the beach during the day are vulnerable to being run over.

Compaction of Undetected Nests

Mann (1977) reported that driving directly above incubating egg clutches can cause sand compaction, which may decrease nest success and directly kill pre-emergent hatchlings and eggs, by physical crushing or collapse of the nest chamber. Vehicles can also compact the sand, making it more difficult or impossible for nesting turtles to excavate a nest cavity, which can lead to increased false crawls and nests with shallow egg chambers (Fletemeyer 1996).

Sand compaction can also make it more difficult for hatchlings to emerge from undetected nests. Many factors, including speed, weight, and size of the vehicle, the timing of the nesting event with respect to the incubation period, the depth of the eggs/hatchlings at the time of impact, and the physical characteristics of the nest itself, will influence whether or not, and the extent to which, mortality or injury occurs. Further, there is no established relationship between the cumulative number of times a particular nests has been run over and the extent and duration of the mortality or injury event. Also confounding this analysis are other factors that may affect the viability of any particular sea turtle nest. For example, tidal inundation, storm events, predation, and accretion/erosion of sand could negatively influence a sea turtle nest deposited in areas where beach driving also occurs (NMFS and Service 1991a; 1991b; 1992; 1993). For these reasons, it is not possible to quantify the adverse consequences of heavy equipment or construction vehicles could have on undetected nests in the action area.

Entrapment of Hatchlings in Vehicle Tire Ruts and Berms

Vehicular ruts and berms can create obstacles for hatchlings moving from the nest to the ocean. Upon encountering a vehicle rut, hatchlings may become disoriented and/or diverted, which can

prevent them from reaching the water after nest emergence (Hughes and Caine 1994). Hatchlings detoured along vehicle ruts are at greater risk to vehicles, predators, fatigue and desiccation. If trapped for a period of time, this could cause them to weaken, become inverted, and die due to predation, disorientation, crushing, or dehydration (Hosier et al. 1981; Fletemeyer 1996; Ernest et al. 1998). The depth and slope of the ruts influence the amount of impact, with deeper and more steeply sloped ruts causing a greater impact. Hosier et al. (1981) found that 3.9 to 5.9 inch (10 to 15 centimeter) deep tracks may serve as a significant impediment to loggerhead hatchlings.

Vibration and Noise Impacts on Adults and/or Eggs

Vibrations and noise caused by heavy equipment, construction vehicles or temporary pipelines on the beach could harass sea turtles by frightening them, leading to false crawls (when a sea turtle returns to water without laying eggs) (NMFS and Service 1991a, 1991b, 1992; Ernest et al. 1998). Vibrations could also harm incubating eggs.

Lighting

Work lights can disorient sea turtles that nest at night, possibly leading to an increase in false crawls. Lights can also disorient Kemp's ridley hatchlings and prevent them from entering the sea after emergence. This can make hatchlings more vulnerable to crushing, predation, and dehydration (NMFS and Service 1991a, 1991b; Fletemeyer 1996). Adult Kemp's ridley sea turtles are primarily daytime nesters, thus artificial work lights used at night should not affect them.

Pipeline

Even though the proposed pipelines are temporary, pipelines can cause nesting habitat to become inaccessible due to the pipeline acting as a barrier to sea turtles. Egg mortality can be increased where sea turtles are forced to nest in less suitable habitat due to the presence of barriers (Witherington et al. 2003). Both adults and hatchlings can be trapped behind the pipeline preventing them from reaching the ocean

Indirect Effects

Indirect effects are caused by or result from the proposed action, are later in time, and are reasonably certain to occur.

Change in Beach Sediment Composition

Minute changes in the composition of beach sediment may affect sea turtle nesting frequency and success. Over time, these types of changes could result in the nourished beach becoming less suitable for use by nesting sea turtles and/or negatively impact the eggs and hatchlings. Sediments surrounding the egg chamber largely influence the incubation environment of the clutch. Temperature, moisture content, and gas exchange, all extremely important factors in the development of sea turtle embryos, are influenced by sediment characteristics (Ackerman et al. 1985). Thus, hatching and emergence success, sex ratios, and hatchling fitness (size and vitality) may be different in compact sediments than in more loosely configured sediments of comparable grain size.

Increased Beach Use and Residential Development

Beach nourishment in the action area would result in a wider beach profile, which would almost certainly encourage public use. This would increase the number of beach visitors to the area, increase recreational use in the action area (increasing vehicles, pedestrians, pets, and predators), and possibly expand beach grooming practices into additional areas.

Beneficial Effects

Beach nourishment on 3,300 LF of beach could provide additional nesting habitat for Kemp's Ridley sea turtles, particularly in light of the severe erosion that occurred in the action area as a result of Hurricane Ike in 2008 and Hurricane Harvey in 2017. In addition, the project would provide an opportunity to educate the public on the importance of beach habitats for nesting sea turtles.

Piping Plover and Red Knot

Piping plovers and red knots exhibit similar foraging and roosting behaviors and utilize similar coastal habitats. The factors affecting these species within the action are similar for both species; therefore, the following sections discuss the mutual effects of the action to both species. The entire 3300-LF (15.4-ac) of proposed beach nourishment area is potential suitable foraging and roosting habitat for wintering piping plovers and red knots.

Direct Effects

Harm and Harassment from Construction Activities

Heavy equipment, construction vehicles, construction personnel, and temporary pipelines placed and operated on the beach could pose a hazard to roosting piping plovers and red knots, especially during cold temperatures or at night. The deposition of sand on approximately 3300-LF of beach, the installation/removal of the temporary pipeline, and use of heavy equipment to place sand to achieve the desired beach profile would have temporary adverse consequences to wintering piping plovers and red knots within the action area, by disrupting normal foraging, roosting, and loafing behavior. This disturbance may result in birds temporarily leaving the action area.

The placement of sediment during the proposed beach nourishment activities may have short-term adverse consequences on surf zone intertidal benthic invertebrates and crustacean communities through direct burial, increased turbidity in the surf zone, or changes in the sand grain size or beach profile. Any reduction in the numbers and/or biomass of these food resources may have localized adverse consequences on foraging piping plovers and red knots due to a reduced food supply or shift in species abundance and diversity. However, the rate of progress of sand placement in 1000 foot sections will be slow enough that foraging piping plovers and red knots will have the ability to move to other areas within or adjacent to the action area that are not affected by the active nourishment activities. Once a given section of beach has been nourished, that area is soon available for re-colonization by invertebrates. A study found that invertebrate communities typically recover from impacts from beach nourishment activities after one to two years post nourishment activities (USACE, 2010).

Indirect Effects

Increased Public Use

Beach nourishment in the action area would result in a wider beach profile, which would almost certainly encourage public use. This would increase the number of beach visitors to the area, increase recreational use in the action area (increasing vehicles, pedestrians, pets, and predators), and possibly expand beach grooming practices into additional areas. Disturbance from recreational activities can prevent birds from using an area, decrease number of birds utilizing the area, and cause shorebirds to spend less time roosting and foraging (Service 2015).

Beneficial Effects

The project would provide an opportunity to educate the public on the importance of beach habitats for wintering piping plovers and red knots, primarily through the development and implementation of a public outreach program by the City of Jamaica Beach. Beach nourishment on 3,300 LF of beach would also provide additional foraging, loafing, and roosting habitat for the piping plover and red knot.

Proposed Red Knot Critical Habitat Analysis

If designated, the red knot proposed critical habitat unit TX-2 would be affected by the proposed actions. Specifically, the beach nourishment activities will temporarily have adverse consequences by potentially reducing benthic invertebrates immediately following and up to two years post beach nourishment (USACE 2010). Despite the potential adverse consequences of beach nourishment on benthic invertebrates, the proposed actions are expected to have long-term beneficial effects due to the expected increase of foraging, loafing, and roosting beach habitat. The available habitat within TX-2 will likely increase due to the proposed activities, which may assist in the recovery of the red knot.

Summary

The proposed action has the potential to adversely affect the Kemp's ridley sea turtle, and migrating and wintering piping plovers, red knots, and proposed critical habitat for red knots within the action area.

The proposed nourishment activities may lead to temporarily diminished quantity and quality of sea turtle nesting habitat, and piping plover and red knot foraging and roosting habitats within the action area. Direct effects may occur from burial of sea turtles, eggs, or hatchlings; collisions with heavy equipment or vehicles; compaction of undetected nests; vibration and noise impacts on adults and/or eggs; entrapment of hatchlings in vehicle tire ruts and berms; lighting; and temporary pipeline placement. Indirect effects to Kemp's ridley may occur from changes in beach sediment composition, and increased public use. Direct effects to piping plovers and red knots may occur in the form of harassment due to construction activities, and indirect effects could result from increased public use.

The proposed project could benefit Kemp's ridley sea turtles by providing additional nesting habitat and could benefit sea turtles, wintering piping plovers and red knots through public education and outreach.

CUMMULATIVE EFFECTS

Cumulative effects include the effects of future state, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the Act.

Beach nourishment in the action area would result in a wider beach profile, which would almost certainly make development or re-development in nearby upland areas more desirable. Additional development or other activities occurring within the action area may occur with or without Federal authorization. Continued development may further increase public users to the area (increasing vehicles, pedestrians, pets, and predators) which will have associated effects to listed species within the action area. Increased lighting from development may affect sea turtle nesting habitat on the beachfront; increased predators associated with people may affect wintering piping plovers.

We reasonably expect future state, local, or private entities to nourish segments of the beach that narrow or become degraded in the future. However, because beach nourishment activities require permitting by the U.S. Army Corps of Engineers, these actions are likely to require Section 7 consultation between the Corps and the Service and do not fall under the definition of future state, tribal, local, or private actions.

CONCLUSION

After reviewing the current status of the Kemp's ridley sea turtle, the piping plover and the red knot; the environmental baseline for the action area; the effects of the proposed issuance of Department of Army permit SWG-2020-00774; and the cumulative effects; it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the Kemp's ridley sea turtle, the piping plover, red knot and is not likely to destroy or adversely modify proposed critical habitat for red knot.

Kemp's Ridley Sea Turtle

The Service finds that the proposed action is not likely to jeopardize the Kemp's ridley sea turtle for the following reasons:

1. Although the number of Kemp's ridley sea turtle nests in Texas has steadily increased in recent years, the majority of Kemp's ridley sea turtles continue to nest on beaches in the Mexican states of Tamaulipas and Vera Cruz. The number of Kemp's ridley nests found in Texas, is significantly lower than the number of nests in Mexico.

2. The conservation measures proposed by the Corps and the City of Jamaica Beach will reduce the likelihood that nesting Kemp's ridley, their eggs or hatchlings are harmed during beach nourishment activities.

Piping Plover and Red Knot

The Service finds that the proposed action is not likely to jeopardize the wintering piping plover and Red Knot for the following reasons:

1. Beach nourishment activities would result in temporary harassment of piping plovers and red knots in and adjacent to the action area. Feeding opportunities would be temporarily disrupted due to benthic invertebrate and crustacean community loss. Invertebrate populations may take up to two years to fully recover.
2. The conservation measures proposed by the Corps and the City of Jamaica Beach will reduce the likelihood that wintering piping plovers and red knots are harmed during beach nourishment.

The conclusions of this BOCO are based on full implementation of the project as described in the "Description of the Proposed Action" section of this document, including any Conservation Measures that were incorporated into the project design.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be undertaken by the Corps so that they become binding conditions of any grant or permit issued to the City of Jamaica Beach, as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the terms and conditions or (2) fails to require the City of Jamaica Beach to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Corps and the City of Jamaica Beach must report the progress

of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE

Kemp's Ridley Sea Turtle

Based on the information within our files and within the BA (including the conservation measures proposed by project proponents), the Service anticipates that 2 adult Kemp's ridley sea turtle and eggs or hatchlings from 4 sea turtle nests will be taken directly as a result of this action. Specifically, incidental take resulting from this project is expected to be in the form of harm and/or harassment from:

1. Disruption of breeding activities from noise, vibrations, heavy machinery and human presence on the beach.
2. Entrapment of adults and hatchlings in trenches and vehicle ruts and trenches.
3. Crushing, collision, and burial of sea turtles and/or nests and compaction of sand over nest with heavy equipment.

The Service anticipates that the incidental take of sea turtle hatchlings and/or eggs from these effects will be difficult to detect for the following reason(s):

1. Turtle nests are difficult to find. Natural factors, such as rainfall, wind, and tides and human-caused factors, such as pedestrian traffic, may obscure crawls, resulting in nests being destroyed because they were missed during monitoring surveys.
2. The total number of hatchlings and eggs per undiscovered nest is unknown.
3. The reduction in percent hatching and emerging success per nest over an undisturbed nest site is unknown.
4. An unknown number of females may avoid the project beaches and be forced to nest in less optimal areas.

Piping Plover and Red Knot

The Service anticipates harassment, in the form of noise and human disturbance, of 9 piping plovers and 2 red knots due to beach nourishment and associated construction activities (approximately 15.4 acres) over the 5-year term of the permit. Incidental take associated with this project is expected to be in the form of harm and/or harassment from:

1. Disruption of feeding and sheltering behaviors resulting from noise, vibrations, heavy machinery and human presence on the beach.
2. Reduction in feeding and sheltering opportunities or capabilities due to the loss and/or degradation of foraging and roosting habitat.
3. Temporary or permanent reduction in survivability of wintering piping plovers and red knots resulting from loss and/or degradation of foraging and roosting habitat.

EFFECT OF THE TAKE

In the accompanying BOCO, the Service has determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of nesting and hatchling Kemp's ridley sea turtles, and non-breeding piping plovers and red knots in the proposed action area of the project:

1. Implement all conservation measures in the BOCO, permit application and/or project plans.
2. Ensure that all parties involved in the project (i.e., contractors, work crews, monitors, etc.) fully understand the endangered species protection measures detailed in the incidental take statement
3. Prevent and/or reduce escarpment formations.
4. Leave primary wrack line in place for roosting and/or foraging piping plovers and red knots, to the maximum extent feasible.
5. Notify the Texas Coastal Ecological Service Field Office [TXCESFO (Houston office)] immediately of direct take of sea turtles, hatchlings, sea turtle eggs, or nests.
6. Notify TXCESFO 2 weeks prior to the initiation of work and upon completion of work activities.
7. Submit an annual report describing beach nourishment locations, activity type, and amount of take if any occurs.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Corps and the City of Jamaica Beach shall comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline reporting or monitoring requirements. These terms and conditions are non-discretionary.

Sea Turtles and Piping Plovers and Red Knots

1. As detailed in the project description the Corps and the City of Jamaica Beach will implement measures to avoid and minimize impacts to sea turtles, piping plovers and red knots. Conservation measures will be implemented and made part of the Corps permit.
2. The City of Jamaica Beach in coordination with the Corps shall insure that contractors, work crews, and the sea turtle, piping plover and red knot monitors shall be properly trained to identify sea turtles, piping plovers and red knots, prior to the commencement of work each time work is to be conducted.
3. Notify TXCESFO in writing two weeks prior to initiation of construction activities and within two weeks following the completion of project construction. Upon completion of the project, submit a report describing any deviations from the description of the

proposed action (see description of proposed action section above) to TXCESFO. The report must also describe conservation measures implemented during project activities, the success of such measures, any incidents that may have occurred, and any recommendations on improvements to those measures. Reports should be sent to U.S. Fish and Wildlife Service, ATTN: Project Leader, 17629 El Camino Real Suite 211, Houston, Texas 77058.

4. In the event that activities result in the direct take (killing, harming, or maiming) of a sea turtle, hatchlings, or eggs, the person(s) responsible for monitoring sea turtles shall notify TXCESFO (281/286-8282, 281/212-1512) and Dr. Donna Shaver (National Park Service/PAIS), and the Texas Sea Turtle Stranding Coordinator (361/949-8173, ext. 226). The Corps and other project proponents will develop a standard methodology for notifying the aforementioned contacts. The handling of dead or stranded sea turtles found during the monitoring program will be established by the Sea Turtle Coordinator and the Service.

These reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring re-initiation of consultation and review of the reasonable and prudent measures provided. The Corps must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

For the benefit of nesting sea turtles, wintering piping plovers and redknots, the Service recommends the following:

1. Work with the Service to design and fund a research program to determine the long-term effects of beach nourishment activities on sea turtle nesting success and wintering piping plover and red knot habitat use and proposed red knot critical habitat components.
2. Work with the Service to develop a plan to monitor and survey benthic organism recovery associated with beach nourishment activities along Jamaica Beach.

For the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in your request for issuance of SWG-2020-00774. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease, pending reinitiation.

The Service appreciates the Corps' efforts to identify and minimize effects to listed species from this project. For further information, please contact staff biologist Moni Belton at 281/212-1512 or via e-mail Moni_Belton@fws.gov. Please refer to the consultation number 02ETTX00-2021-F-2716 in future correspondence concerning this project.

Sincerely,



Charles Ardizzone
Project Leader

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Appendix A

WILDLIFE MONITORING CHECKLIST

Project Name: _____

Objective: Report sightings of protected species- piping plover, red knot, and various species of sea turtles (dead or alive), hatchlings, tracks, eggs or nests. In addition to reporting any birds observed injured or nesting.

DO NOT DISTURB OR TOUCH A SEA TURTLE. PIPING PLOVER OR RED KNOT.

Date:_____ Start Time:_____am/pm Finish Time:_____am/pm
Weather: Sunny Fair Partly Cloudy Cloudy Windy Calm Rain
Reach of Beach Monitored:_____

Observations:

- Piping Plover; Not Present in area Foraging Roosting (resting)
- Red Knot; Not Present in area Foraging Roosting (resting)
- Injured Birds (any species) Not Present in area Foraging Roosting (resting)
- Nesting Birds (any species) Nest location identified and reported

• **To report injured Piping Plover, Red Knot and/or any species of injured or nesting bird, Call U.S. Fish and Wildlife Service (281) 212-1512 if on upper Texas coast and 361-994-9005 if on lower Texas coast.**

Sea Turtle; Species common name(s):_____

Leaving Water Entering Water Laying Eggs Dead on Beach

Metal Flipper Tag Identification:_____ (Letters and/or Numbers);

- Take Photographs, **Call 1-866-TURTLE5 (1-866-887-8535)** for Instructions,
- Await Arrival of Officials.

Living Tissue Tag (White Mark on one Scute of Shell); Take Photographs,

- Call **1-866-TURTLE5 (1-866-887-8535)** for Instructions, Await Arrival of Officials.

If Laying Eggs; Turtle is Facing North South East West,

- Mark Nest(do not penetrate sand), Call **1-866-TURTLE5 (1-866-887-8535)** for Instructions,
- Take Photographs, Time/clock Laying Event, Await Arrival of Officials.

Hatchlings; Take Photographs, Call **1-866-TURTLE5 (1-866-887-8535)** for instructions

- Await Arrival of Officials, Guard Against Predators.

Tracks; Measure Width:_____, Take Photographs,

- Call **1-866-TURTLE5 (1-866-887-8535)** for Instructions, Await Arrival of Officials.

Eggs/Nest; Mark Nest(do not penetrate sand), **Call 1-866-TURTLE5 (1-866-887-8535)** for Instructions,

- Take Photographs, Await Arrival of Officials.

Stranded Marine Mammals if observed call Texas Marine Mammal Stranding Network at

- **1-800-9MAMMAL (1-800-962-6625)** for instructions.

No Sightings; None of the Above.

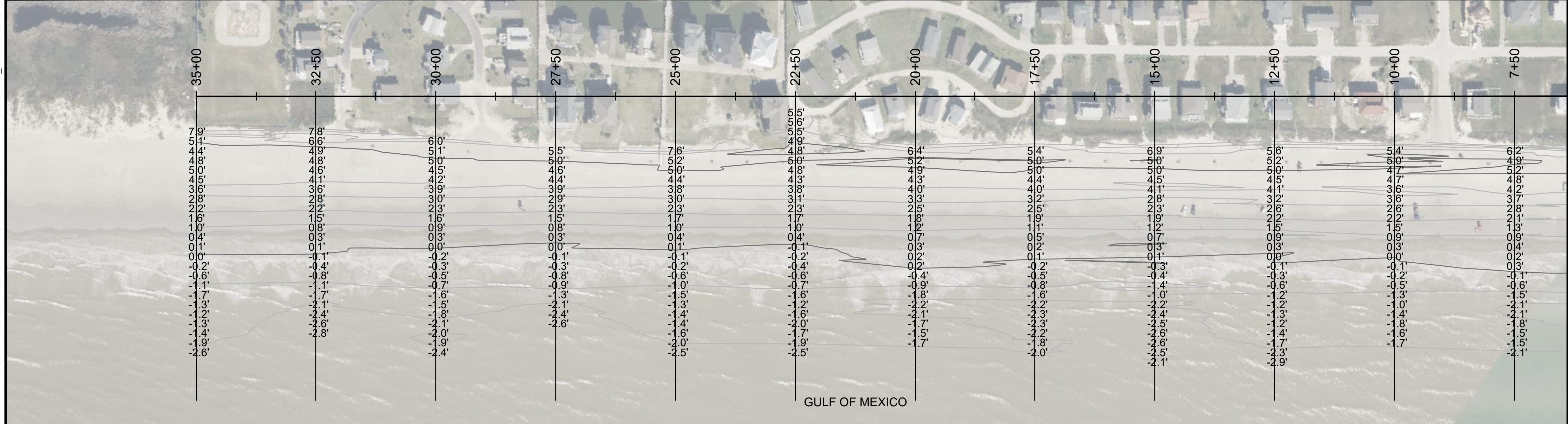
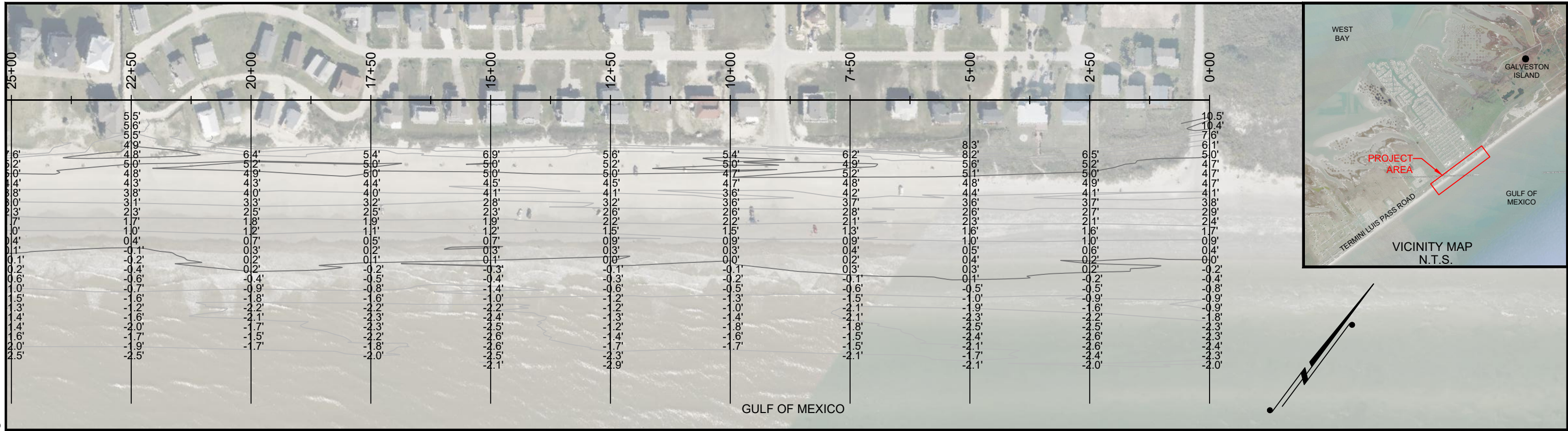
Additional Comments:

Special Note: All sea turtles, piping plovers and red knots are protected by law as threatened or endangered species. No one, unless permitted, can remove sea turtle eggs, handle turtles, or disturb any of these species. Otherwise, one may be liable to fines up to \$20,000 and criminal sentencing.

Monitor Name: _____
Please Print Clearly

Telephone: _____
(Area Code) and Phone

\\TBS.LOCAL\PANZU\PROJECTS\2023\0389\DWG\LAN-JAMAICA BEACH PROFILE SURVEY_16MAY2023.DWG



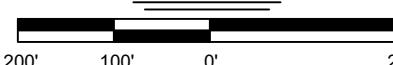
NOTES:
 1. BATHYMETRIC DATA WAS RECORDED BY T. BAKER SMITH ON 16 MAY, 2023. SEA FLOOR CONDITIONS ARE SUBJECT TO CHANGE.
 2. HORIZONTAL DATUM: NAD83 (2011), TEXAS SOUTH CENTRAL ZONE. ALL DISTANCES ARE U.S. SURVEY FEET (GRID).
 3. VERTICAL: NAVD88 (GEOID 18)

"BOAT RAMP PIN"
 N: 13,638,427.7'
 E: 3,250,701.1'
 ELEV: 2.7' NAVD88



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 TBPLS #10194575

SCALE: 1" = 200'



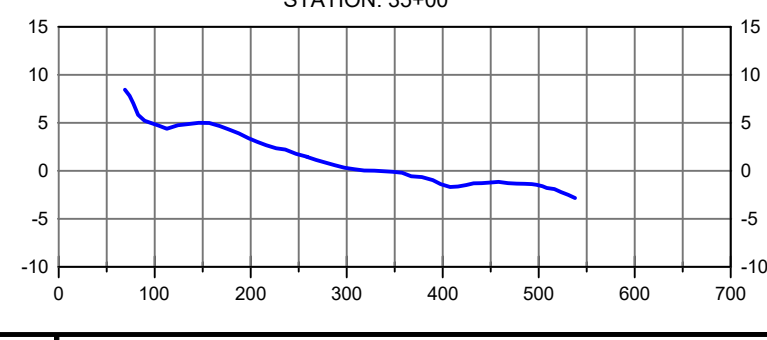
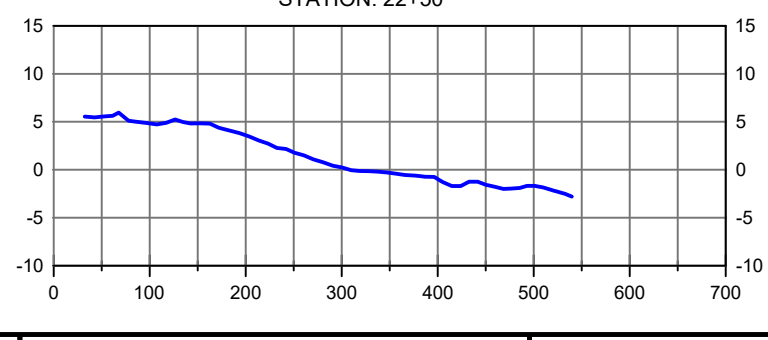
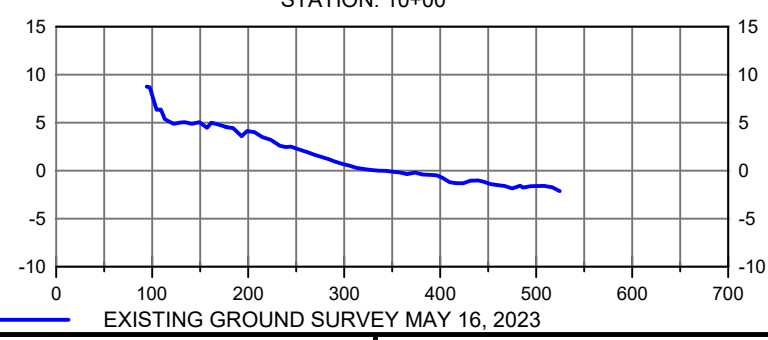
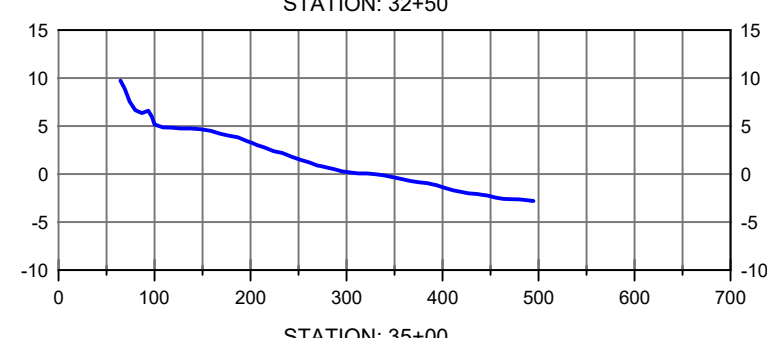
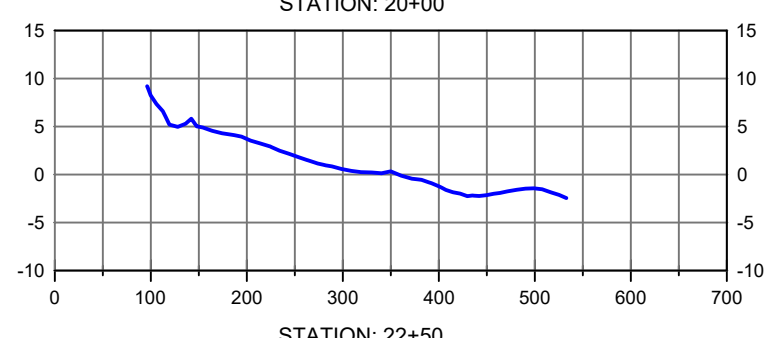
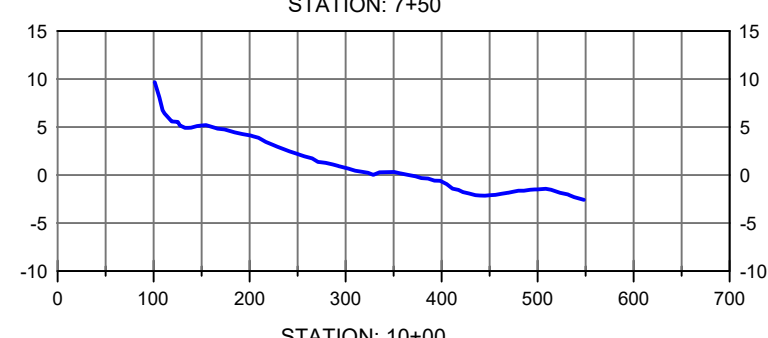
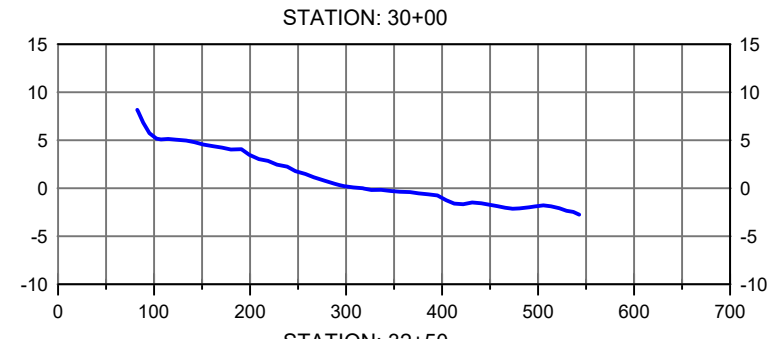
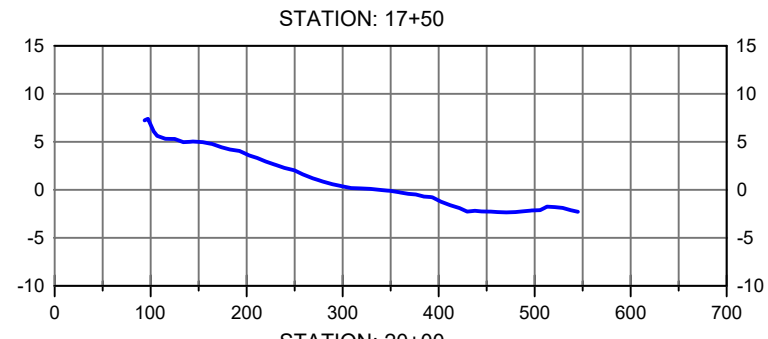
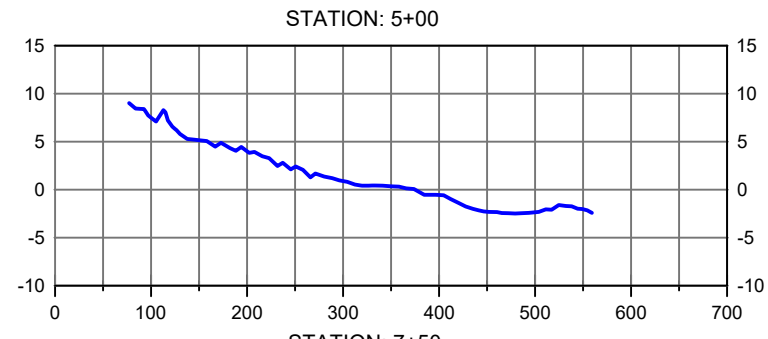
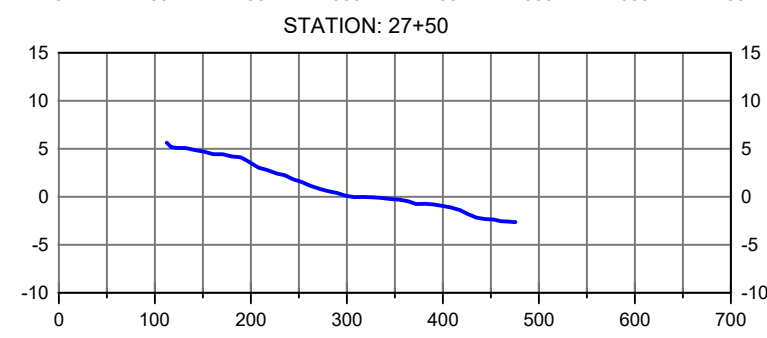
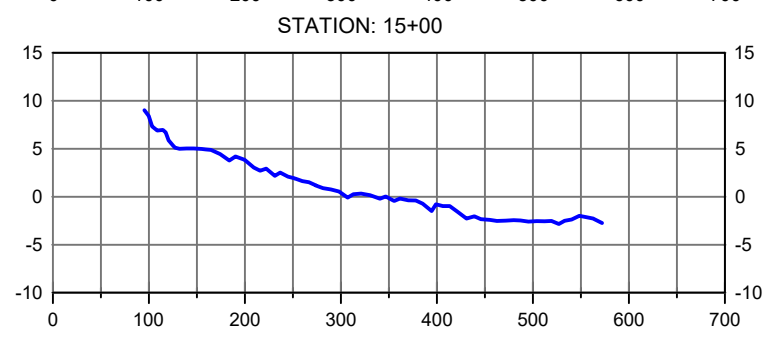
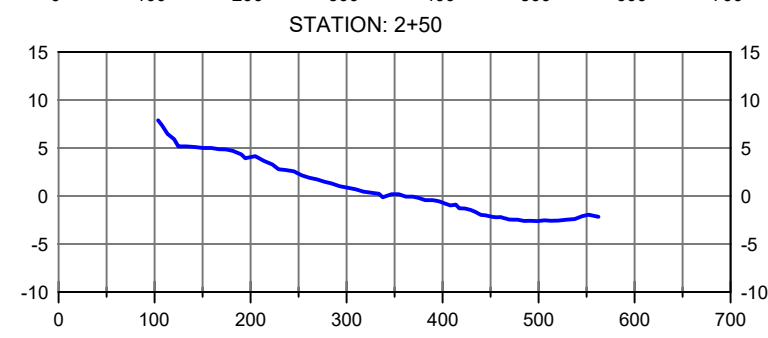
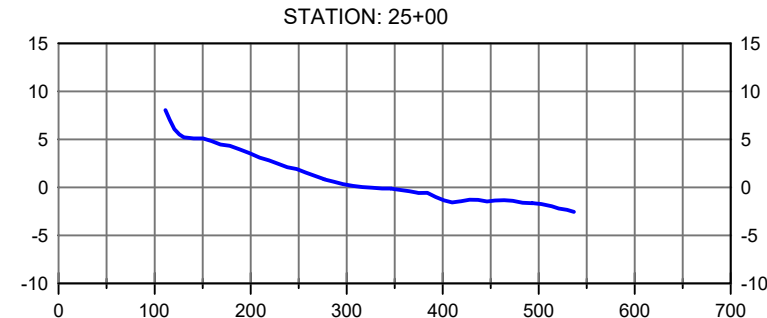
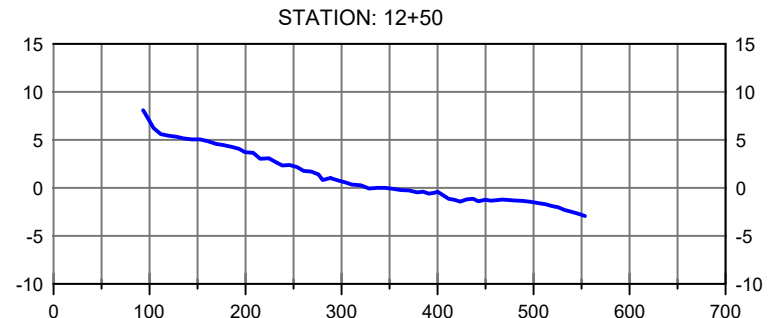
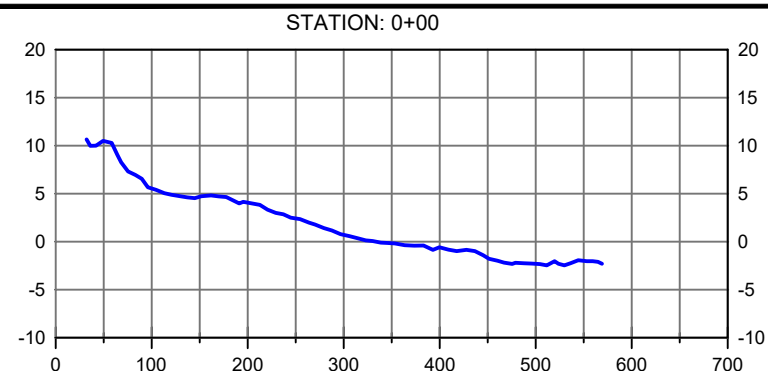
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REVISION DESCRIPTION:
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DATE:	05/31/2023	JOB NO:	2023.0389
DRAWING NAME: LAN-JAMAICA BEACH PROFILE SURVEY_16MAY2023			
PROJECTION: TEXAS STATE PLANE SOUTH CENTRAL GEO. DATUM: NAD83 (2011) VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET			
SHEET NO:	1	OF	2

JAMAICA BEACH PROFILE SURVEY
 LOCKWOOD, ANDREWS, AND NEWNAM, LLC
 JAMAICA BEACH
 AN EXHIBIT OF
 JAMAICA BEACH PROFILE SURVEY
 LOCATED IN
 JAMAICA BEACH, TEXAS

\\TBS.LOCAL\IPANZU\PROJECTS\2023\2023.0389\DWG\LAN-JAMAICA BEACH PROFILE SURVEY_16MAY2023.DWG



EXISTING GROUND SURVEY MAY 16, 2023

NOTES:
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HORIZONTAL SCALE: 1" = 200'		
VERTICAL SCALE: 1" = 20'		
REV. NO: 00	REV. DATE: --/--	REV. BY: ---
REVISION DESCRIPTION: --		

DRAWN BY: CDW	APPROVED BY: AWK
DATE: 05/31/2023	JOB NO: 2023.0389
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PROJECTION: TEXAS STATE PLANE SOUTH CENTRAL GEO. DATUM: NAD83 (2011) VERT. DATUM: NAVD88 GRID UNITS: US SURVEY FEET	
SHEET NO: 2	OF 2

JAMAICA BEACH PROFILE SURVEY
 LOCKWOOD, ANDREWS, AND NEWNAM, LLC
 JAMAICA BEACH
 AN EXHIBIT OF
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