

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE J	PAGE OF PAGES 1 1
2. AMENDMENT/MODIFICATION NO. 0002		3. EFFECTIVE DATE 04-Aug-2004	4. REQUISITION/PURCHASE REQ. NO. W25PHS-4061-7415		5. PROJECT NO.(If applicable)
6. ISSUED BY US ARMY ENGINEER DISTRICT, PHILADELPHIA CONTRACTING DIVISION WANAMAKER BUILDING 100 PENN SQUARE EAS PHILADELPHIA PA 19107-3390		CODE W912BU	7. ADMINISTERED BY (If other than item 6) US ARMY ENGINEER DISTRICT, PHILADELPHIA POC: MICHELLE BERTOLINE WANAMAKER BUILDING 100 PENN SQUARE EAST PHILADELPHIA PA 19107-3390		CODE E5CTCMJB
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)				<input checked="" type="checkbox"/> 9A. AMENDMENT OF SOLICITATION NO. W912BU-04-B-0014	
				<input checked="" type="checkbox"/> 9B. DATED (SEE ITEM 11) 25-Jun-2004	
				10A. MOD. OF CONTRACT/ORDER NO.	
				10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended.					
Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) The bid opening date is hereby extended to 31 August 2004 at 11:00 a.m. Continued on next page.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			TEL:	EMAIL:	
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED	16B. UNITED STATES OF AMERICA		16C. DATE SIGNED
_____ (Signature of person authorized to sign)			BY _____ (Signature of Contracting Officer)		04-Aug-2004

14. DESCRIPTION OF AMENDMENT (continued)

a. SF 1442 AND BIDDING SCHEDULE: Section 00010, Page 3 - Please delete page 00010-3 in its entirety and substitute the new page of the same number, annotated Amendment No. 0002, attached hereto.

b. SPECIAL CONTRACT REQUIREMENTS:

(1) Section 00800, SPECIAL CLAUSE "SC-3 CONTINUING CONTRACTS (MARCH 1995)," subparagraph c.: Please delete the first sentence and replace it with the following: "The sum of **\$10,000** has been reserved for this contract and is available for payments to the Contractor during the current fiscal year."

(2) Section 00815, WAGE RATES: Please add pages numbered 00815-5 and 00815-6, annotated Amendment No. 0002 and attached hereto, to the end of this section.

c. TECHNICAL SPECIFICATIONS:

NOTE: The following sections were amended. For simplicity, the complete section is being reissued to enable complete substitution/insertion of the section in existing hard copies. To make detection of changes easier, only those pages with changes on them are annotated with "Amendment No. 0002" in the upper right corner. In addition, changes on a page are highlighted in **bold italics**.

(1) Section 01010 - SUMMARY OF WORK: Please delete this section in its entirety and substitute the new section of the same number, annotated Amendment No. 0002, attached hereto.

(2) Section 01060 - SAFETY: Please delete this section in its entirety and substitute the new section of the same number, annotated Amendment No. 0002, attached hereto.

(3) Section 02390 - BEACHFILL: Please delete this section in its entirety and substitute the new section of the same number, annotated Amendment No. 0002, attached hereto.

(4) Section 02446 - SAND FENCE AND DUNE GRASS: Please delete this section in its entirety and substitute the new section of the same number, annotated Amendment No. 0002, attached hereto.

(5) Section 02500 - DUNE CROSSOVERS: Paragraph entitled "3.4 MEASUREMENT AND PAYMENT," subparagraph entitled "3.4.1 Dune Crossovers": Please add the following sentence at the end of the paragraph: "***The costs of the partial and/or complete demolition of existing handicap ramps shall be included in Bid Item No. 6, "Handicap Dune Crossovers."***"

d. CONTRACT DRAWINGS: Drawing Nos. 62401, 62403, 62405, 62406, 62409, 62413, 62415, 62416, and 62417 - Please delete these drawings their entirety and substitute the revised sheets, of the same Drawing Numbers, with a revision date of 13 Jul 2004, attached hereto.

e. Please indicate receipt of this amendment on Standard Form 1442(SOLICITATION, OFFER, AND AWARD) as Amendment No.0002. Failure to acknowledge all amendments may be cause for rejection of the bid.

BIDDING SCHEDULE

(To be attached to Standard Form 1442)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>Base Bid</u>					
1.	Mobilization and Demobilization	1	Job	L.S.	\$
2.	Beachfill	1,670,000	C.Y.	\$	\$
3.	Sea Turtle Modifications (If a Hopper Dredge is not to be used, Enter \$0)	1	Job	L.S.	\$
4.	Pedestrian Crossovers	45	EA	\$	\$
5.	Vehicular Dune Crossovers	2	EA	\$	\$
6.	Handicap Dune Crossovers	2	EA	\$	\$
7.	Dune Grass	1	Job	L.S.	\$
8.	Sand Fence	22,440	LF	\$	\$
TOTAL ESTIMATED AMOUNT BASE BID:					\$
<u>Option 1</u>					
9.	Beachfill	150,000	C.Y.	\$	\$
<u>Option 2</u>					
10.	Beachfill	150,000	C.Y.	\$	\$
<u>Option 3</u>					
11.	Beachfill	150,000	C.Y.	\$	\$
TOTAL ESTIMATED OPTIONS 1, 2, & 3 AMOUNT:					\$
TOTAL ESTIMATED BASE BID AND OPTIONS 1, 2, & 3 AMOUNT:					\$

NOTE: Bidders must bid on all items.

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

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

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

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

END OF GENERAL DECISION

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 SCOPE

This section presents a general description of the work to be accomplished under this contract at Rehoboth Beach and Dewey Beach, Delaware.

1.2 DESCRIPTION OF WORK

The contract work consists of a Base Bid to place approximately 1,670,000 cubic yards of beachfill between the groin 1,200 feet north of Lake Avenue in Rehoboth Beach, Delaware and just beyond the southern end of Dewey Beach, Delaware, 1000 feet south of Collins Avenue.

The Base Bid includes, in addition to beachfill: the demolition of an existing handicap ramp and some existing sand fence; the maintainance of drainage from existing stormwater outfalls; the construction of pedestrian, vehicular, and handicap dune crossovers; and, providing dune grass and sand fence.

The contract work also consists of three separate options (Options 1, 2, and 3) to place an additional 150,000 cubic yards of beachfill, per option awarded. Option work will be awarded if the Contracting Officer determines that additional beachfill is required, based on the results of pre-placement condition surveys and changing site conditions as they occur during the contract period. Where additional beachfill is required, the option work would be placed immediately after the bid quantity in a particular area to achieve the template shown on the contract drawings.

The borrow area for beachfill material is located approximately 8 miles offshore, south east of the project location.

The borrow area is located in the vicinity of known World War II era firing ranges. A magnetometer survey of the borrow area was conducted and the area was shown to be free of any "targets." However, as a precaution, the Contractor shall develop an unexploded ordnance work plan, and, the Contractor shall be required to implement some precautionary measures. See Section 01060 SAFETY and Section 02390 BEACHFILL for those requirements.

1.3 REQUIRED ORDER OF WORK

The Contractor shall commence the contract work at the south end of the project area, in Dewey Beach, and progress north towards Rehoboth Beach.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

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SECTION 01060

SAFETY

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the development and enforcement of a safety and accident prevention program.

1.2 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (Latest Rev.) Safety and Health Requirements Manual

CEHNC-OE-CX (2000) Basic Safety Concepts and Considerations for Ordnance and Explosives (OE) Operations, OE Center of Expertise (CX) Interim Guidance Document 00-02

NOTE: EM 385-1-1 and its changes are available at <http://www.hq.usace.army.mil/soh/em385/current/current38511.htm>. The Contractor shall be responsible for complying with the current edition and all changes posted on the web as of the effective date of this solicitation.

U.S. ARMY CORPS OF ENGINEERS (PHILADELPHIA DISTRICT)

Liberty from Accidents Program (1996) Philadelphia District Awards Program

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. See Section 01330 SUBMITTAL PROCEDURES for all procedures related to the submission of submittals.

NOTE: Any submittals classified as "SD-01 Preconstruction Submittals" require approval prior to mobilization to the contract work site. All other submittals, classified as "SD-02" through "SD-11," require approval prior to commencing the particular task to which the submittal is associated.

The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Qualifications; G,DO.

Name and qualifications of the Contractor's proposed safety representative.

Accident Prevention Plan; G,DO.

An accident prevention plan, prepared by the prime Contractor for the specific work, describing in detail how the contractor will implement the pertinent requirements of EM 385-1-1 shall be submitted for approval prior to the start of work. A suggested format for the accident prevention plan is included in EM 385-1-1, Appendix A. The plan shall be prepared for all sites and shall include, but is not limited to, the topic areas listed in Appendix A therein and the requirements of the Paragraph entitled: SAFETY AND HEALTH PROVISIONS. Each topic shall be developed in a concise manner to include management and operational aspects.

The Contractor shall comply with the provisions of EM 381-1-1. If the Contractor is a currently accepted participant in the Dredging Contractors of America(DCA)/United States Army Corps of Engineers(USACE) Dredging Safety Management Program(DSMP), as determined by the DCA/USACE Joint Committee, and holds a current valid Certificate of Compliance for both the Contractor Program and the Dredge(s) to be used to perform the work required under this contract, the Contractor may, in lieu of the submission of an Accident Prevention Plan(APP),

- (1) make available for review, upon request, the Contractor's current Safety Management System(SMS) documentation,
- (2) submit to the Contracting Officer the current valid Company Certificate for its SMS,
- (3) submit the current dredge(s) Certificate of Compliance based on third party audit, and
- (4) submit for review and acceptance, site-specific addenda to the SMS as specified in the solicitation.

Unexploded Ordnance Work Plan; G,DO

Prior to mobilization, an Unexploded Ordnance Work Plan shall be prepared by the Contractor and submitted for approval. This plan shall present the Contractor's proposed screening and inspection program for materials dredged from the borrow area; a site specific magnetometer work plan detailing the Contractor's proposed methodology for completing magnetometer surveys, if required; and procedures for dealing with unexploded ordnance items in accordance with CEHNC-OE-CX if encountered during performance of the work for this project. All unexploded ordnance (UXO) procedures shall comply with CEHNC-OE-CX. The Unexploded Ordnance Work Plan shall outline how the Contractor shall meet the guidelines and requirements presented in the CEHNC-OE-CX.

The work plan shall describe the qualifications of the UXO personnel. The following are the minimum non-waiverable qualifications for UXO personnel:

- (1) The UXO Team Leader (UXO Supervisor) shall be a graduate of the Naval EOD School, Indian Head, MD with at least ten years of combined active military EOD and contractor experience.
- (2) The UXO Team Member (UXO Specialist) shall have more than three years active duty military EOD experience.

The work plan shall provide details of the magnetometer equipment which will be used for the beach surveys. The work plan shall also describe the

grid layout for any magnetometer surveys which may be necessary. The work plan shall propose an evacuation distance based on the largest piece of UXO expected to be found on the beach. The Contractor shall describe feasible alternatives for disposal, and shall recommend the safest and most cost effective method of treatment and disposal of any explosive ordnance and inert ordnance encountered. If on-site detonation is not acceptable, an alternate method should be considered and proposed by the Contractor. The method of disposal shall be forwarded to the Contracting Officer for approval prior to mobilization.

SD-07 Certificates

Activity Phase Hazard Analysis Plan; G,DO.

Prior to beginning each major phase of work, an activity hazard analysis (phase plan) shall be prepared by the Contractor for that phase of work and submitted for approval. The suggested format for the analysis is contained in Figure 1-1 of EM 385-1-1. A phase is defined as an operation involving a type of work presenting hazards not experienced in previous operations or where a new subcontractor or work crew is to perform work. The analysis shall address the hazards for each activity performed in the phase and shall present the procedures and safeguards necessary to eliminate the hazards or reduce the risk to an acceptable level.

Safety Meeting Reports.

Outline reports of all weekly and monthly safety meeting shall be submitted.

Accident Reports.

A written report for all accidents, utilizing ENG FORM 3394, shall be submitted within 24 hours following such accidents.

OSHA 300 Log.

Contractor's OSHA 300 Log of Injuries shall be submitted monthly.

Floating Plant Inspection; G,DO

A copy of the annual inspection of all plants, not subject to Coast Guard inspection, shall be submitted prior to start of work.

1.4 GENERAL

Worker safety is of paramount importance. The Contractor shall comply with the Contract Clause entitled: ACCIDENT PREVENTION, EM 385-1-1, the Philadelphia District's Liberty from Accidents Program, the CEHNC-OE-CX and all other requirements as specified herein.

1.5 SITE CONDITIONS

The conditions at the work site require that a lifesaving skiff be manned and immediately available when working over water. All safety equipment shall be in accordance with the requirements of EM 385-1-1.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 SAFETY PROGRAM

EM 385-1-1 and all subsequent revisions referred to in the Contract Clause entitled: ACCIDENT PREVENTION of this contract, are hereby supplemented as follows:

a. The Contractor shall designate an employee to be the safety representative who shall be responsible for safety matters and accident prevention activities. This safety representative shall have no other responsibilities. Such duties shall include: (1) assuring applicable safety requirements are incorporated in work methods and (2) inspecting the work to ensure that daily safety measures and instructions are implemented and documented. The proposed safety representative's name and qualifications shall be submitted in writing for approval by the Contracting Officer. This individual shall have prior experience as a safety representative or be able to demonstrate familiarity and understanding of the safety requirements over a prescribed trial period. The safety representative shall have the authority to act on behalf of the Contractor's general management to take whatever action is necessary to assure compliance with safety requirements. The safety representative is required to be on the site when work, of any kind, is being performed, unless otherwise approved by the COR.

b. Prior to commencement of any work at the job site, a preconstruction safety meeting will be held between the Contractor's safety representative and the Contracting Officer to discuss the Contractor's safety program and to review the Accident Prevention Plan and Activity Phase Hazard Analysis Plan for the first phase of work.

c. Subsequent jobsite safety meetings shall be held as follows:

(1) A safety meeting shall be held at least once a month and shall be documented by the safety representative with subject and attendees. The safety meeting shall be for the purpose of having all supervisors on the project review past activities, to plan ahead for new or changed operations and to establish safe working procedures to anticipated hazards. An outline report of each monthly meeting shall be submitted to the Contracting Officer.

(2) At least one safety meeting shall be conducted weekly, or whenever new crews begin work, by the appropriate field supervisors or foremen for all workers. An outline report of the meeting giving date, time, attendance, subjects discussed and who conducted the meeting shall be prepared and furnished to the Contracting Officer.

3.2 PHILADELPHIA DISTRICT LIBERTY FROM ACCIDENTS PROGRAM

The Philadelphia District Liberty from Accidents Program is hereby incorporated as part of these specifications. The Liberty from Accidents Program rewards Contractors who exceed safety standards. The program provides local and District-wide awards on a quarterly and annual basis.

a. The Contractor will be evaluated for awards and the final performance evaluation in safety on the frequency rate for the project. The frequency rate is calculated by the following equation: frequency = (number of lost

time accidents x 200,000) divided by the number of man-hours for the project. The Contractor shall have a proactive safety plan as outlined in the Liberty from Accidents Program.

b. The Contractor evaluation procedure for the safety category shall be as follows:

RATING	CONTRACTOR FREQUENCY RATE
Outstanding	Less than or equal to 0.25.
Above Average	Greater than 0.25 but less than or equal to 0.75.
Satisfactory	Greater than 0.75 but less than or equal to 0.84.
Marginal	Greater than 0.84 but less than or equal to 1.95.
Unsatisfactory	Greater than 1.95.

Extenuating circumstances will be considered to change the safety rating in limited situations.

3.3 ACCIDENTS

Chargeable lost time accidents are to be investigated by both the Contractor and the Contracting Officer.

3.3.1 Accident Reporting

EM 385-1-1 and the Contract Clause entitled: ACCIDENT PREVENTION are supplemented as follows: The prime Contractor shall report on ENG FORM 3394, provided by the Contracting Officer's Representative, all injuries to employees or to subcontractor employee, and all damage to property and/or equipment. Verbal notification of such accidents shall be made to the Contracting Officer within 8 hours of occurrence. A written report utilizing ENG FORM 3394 shall be submitted to the Contracting Officer within 24 hours following such accidents. The report shall include the following:

a. A description of the circumstances leading up to the accident, the cause of the accident, and corrective measures taken to prevent recurrence.

b. A description of the injury and name and location of the medical facility rendering examination and treatment.

c. A statement as to whether or not the employee was permitted to return to work after examination and treatment by the medical facility, and if not, an estimate or statement of the number of days lost from work. If there have been days lost from work, the employee must be re-examined and declared fit to resume work as of the date of the report.

3.4 OSHA REQUIREMENTS

3.4.1 OSHA 300 Log

A copy of the Contractor's OSHA 300 Log of Injuries shall be submitted in accordance with the Paragraph entitled: SUBMITTALS.

3.4.2 OSHA Inspections

The Contractor shall immediately notify the Contracting Officer when an OSHA Compliance Official (Federal or State representative) presents credentials and informs the Contractor that the workplace will be inspected for OSHA compliance. The Contractor shall also notify the Contracting Officer upon determination that an exit interview will take place upon completion of the OSHA inspection.

3.5 UNEXPLODED ORDNANCE ITEMS

The Contractor shall immediately notify the Contracting Officer if an unexploded ordnance, or an item suspected of being an unexploded ordnance, is encountered during performance of the work. The procedures for dealing with the unexploded ordnances or suspected items shall be in accordance with the approved Unexploded Ordnance Work Plan. See Section 02390 BEACHFILL for other requirements.

3.6 MEASUREMENT AND PAYMENT

The payment for actual work required in this section in connection with encountering unexploded ordnance will be made in conformance with the DIFFERING SITE CONDITIONS clause of the CONTRACT CLAUSES. All other work specified in this section, including the development of the unexploded ordnance plan will not be measured for payment, and all costs in connection therewith shall be included in the costs of all the bid items.

-- End of Section --

SECTION 02390

BEACHFILL

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, plant and equipment and performing all operations required for removal of the beachfill material from the borrow area located offshore, as shown on the contract drawings, and placing the material on the beach within the limits as specified herein and shown on the drawings.

1.2 APPLICABLE PUBLICATION

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 422 (1963) (R1990) Particle-Size Analysis of Soils

CORPS OF ENGINEERS PUBLICATIONS (COE)

COE EM 385-1-1 (1996) Safety and Health Requirements Manual

CODE OF FEDERAL REGULATIONS (CFR)

33 CFR 156 (1992) Navigation and Navigable Waters, Oil and Hazardous Material Transfer Operations

1.3 BORROW MATERIAL

1.3.1 Character of Borrow Material

The character of the material to be used for beachfill is believed to be as indicated by the results of Government-conducted sampling. Particle size distribution curves are included in Section 00855 of this contract. Vibracore logs and the locations of vibracore holes within the borrow area are shown on the drawings. ***Boulders, cobbles, and clay balls may also be encountered in the borrow area. In addition, unexploded ordnance may also be encountered (see paragraph "Unexploded Ordnance" below).***

1.3.2 Location of Borrow Area

The location of the borrow area and the limits to which removal of material is permitted is shown on the drawings. The borrow area to be used is located approximately 2 miles offshore, at a distance approximately 8 miles southeast of the work area. The maximum allowable depth for removal of material from the entire borrow area is -51.0 feet NAVD 88. To cover the inaccuracies of the dredging process the Contractor may remove material in this borrow area to a depth not more than 1 foot below the maximum allowable depth. Unless specifically directed by the Contracting Officer, no payment will be made for material removed from below this depth or from

outside the borrow area limits.

1.3.3 Nature of Borrow Areas

The surveys of the borrow areas shown on the drawings are from surveys taken on 12 February 2004 and are the most recent surveys available. The borrow area conditions are dynamic in nature, and the soundings shown on the contract drawings may not be an accurate representation of the depths and conditions existing at the commencement of dredging operations in this contract. Before- and after-dredging surveys of the borrow area shall be conducted as specified in Section 01720 SURVEY REQUIREMENTS.

1.4 SITE CONDITIONS

Bidders are expected to examine the site of the work in accordance with Contract Clause: SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK to determine the conditions affecting their operations. The entire work site is designated as a hard hat area in accordance with COE EM 385-1-1. Access to the contractor staging area and beachfill site is available at the locations shown on the drawings. In the areas where boardwalk is located within the Contractor's Work Limit, as shown on the drawings, the Contractor will not be allowed to stage equipment on the boardwalk.

1.5 FUEL OIL HANDLING

The Contractor shall assure that all fuel oil transfer operations to or from his plant comply with all applicable Federal, State, and municipal laws, codes, and regulations. The Contractor shall incorporate in his accident prevention plan, required under Paragraph "Accident Prevention Plan", sufficient information to demonstrate compliance with 33 CFR 156 and all other applicable laws, codes, and regulations.

1.6 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Work Plan; G,COR.

The Contractor shall describe his proposed personnel, equipment, and methods for accomplishing the contract work.

Debris Prevention Plan; G,COR.

The Contractor shall devise a means and a monitoring program/method to ensure that debris (***boulders, cobbles, clay balls, and other debris***) is not deposited upon the beach and buried by beachfill material.

Pumpout Plan; G,COR.

If a hopper dredge is used for the contract work, the Contractor shall submit to the Contracting Officer for approval, prior to the start of work, its plan for pumpout of excavated material from the

dredge to the beachfill area. The plan shall include the description, dimensions, and location of the proposed mooring facility.

Grade Stake Recovery Plan; G,COR.

Contractor shall submit a plan describing his procedures that will be used to ensure that all grade stakes placed on the beach during construction are subsequently removed.

DGPS Positioning.

The DGPS positioning data shall be submitted to the Contracting Officer on a daily basis.

SD-02 Shop Drawings

Borrow Areas; G,DO.

The Contractor shall provide a map of the borrow area, to scale, with the Contractor-assigned stationing and range information. This map will be used by the Government to identify the location of dredging on a daily basis. The Contractor shall indicate on that mapping which corner of the borrow area is 0,0.

SD-06 Test Reports

Test Reports; G,COR.

Copies of all laboratory and field test reports shall be submitted to the Contracting Officer within one week after completion of each test.

Fuel Usage.

The Contractor shall furnish the Contracting Officer reports, to be received on or before the last day of each month, listing the totals of fuels consumed by the dredging plant and supporting vessels. The reports shall separately list the quantities of each type of fuel used. The reports shall cover the period from the 25th of the preceding month to the 25th of the current month.

1.7 DIFFERENTIAL GLOBAL POSITIONING SYSTEM(DGPS) EQUIPMENT

The Contractor must have a differential GPS, in accordance with the requirements for project classifications for "Navigation and Dredging Support Surveys" as referenced in the Corps of Engineers Hydrographic Survey Manual EM 1110-2-1003. The Contractor shall provide real time positioning of the dredge on a computer screen, during dredging, and have the capability of playback in 15 minute intervals. The position must be recorded on a disk every 15 minutes.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 DEDICATED PUBLIC SAFETY PERSONNEL

The Contractor shall provide a minimum of two public safety persons to

patrol the perimeter of the closed beach area and direct the public to not enter the construction area. They shall have no other responsibilities. These dedicated public safety personnel shall be provided between 8:00 am and 5:00 pm, during active construction operations.

3.2 PRE-PLACEMENT CONDITION SURVEYS

Pre-placement condition surveys shall be performed as specified in Section 01720 SURVEY REQUIREMENTS. Commencement of beachfill will not be permitted until these surveys have been submitted and approved by the Government.

3.3 MAINTENANCE OF DRAINAGE OUTFALLS

Prior to beachfill operations around the ends of outfalls, the Contractor shall wrap/cap the outfall ends, and post the outfall ends enabling them to be readily found after beachfill. Posts shall be 2-inch x 4-inch nominal wood posts. Outfalls shall then be buried during beachfill operations. ***Maintenance of drainage outfalls will be the responsibility of others.***

3.4 REMOVAL OF EXISTING HANDICAP RAMP

Existing handicap ramps, at approximately Stations 52+00 and 72+00, shall be removed to the extent indicated on the contract drawings.

3.5 REMOVAL OF OTHER STRUCTURES

Except for the handicap ramps indicated above, all other existing structures, including, but not limited to, the volleyball poles and bases, will be removed by others.

3.6 Unexploded Ordnance

To minimize UXOs from entering in the dredge during borrow site dredging, the dredge intake shall be fitted with a bar-type, grid screen. This screen will have a maximum opening of 38 mm (1.5 in) between adjacent bars and will be constructed out of material that is very durable and wear resistant. During the dredging operation, these screens shall be inspected daily to assure their functionality. During the pumping operations, the contractor shall provide personnel to maintain visual control at the end of the discharge line. Radio contact shall be maintained such that dredging can be halted in case of an emergency. In hours of darkness, illumination shall be provided by portable lighting equipment within 15 m (50 ft) of the pipe discharge.

If during the course of the fill placement operation, it is observed that an ordnance is discharged on the beach, the Contractor shall immediately cease the pumping operation, notify the Contracting Officer or his designated field staff, and remove the object(s) as described in the approved Unexploded Ordnance (UXO) Work Plan (see Section 01060 SAFETY). In addition, the Contractor shall conduct a magnetometer survey on the beach area being filled to assure that no additional ordnance has been placed on the beach. The survey shall include all areas placed the day prior to the discovery of ordnance on the beach, as well as, the day of, and, the day following the discovery. All surveys shall be performed in accordance with the approved Unexploded Ordnance Work Plan as required by Section 01060 SAFETY. The Contractor shall inspect the screens on his dredge equipment to

determine if a break has occurred.

3.7 PLACEMENT OF BEACHFILL

3.7.1 General

Beachfill material shall be placed between the groin located 1,200 feet north of Lake Avenue in Rehoboth Beach and beyond the southern end of Dewey Beach approximately 1,000 feet south of Collins Avenue. Beachfill material shall be placed and shaped to the beachfill template lines, grades, slopes, and elevations shown on the drawings. There shall be no pronounced ridges or wash holes in the final grades and slopes unless otherwise indicated. **If boulders, cobbles, clay balls, or other debris larger than 38 mm (1.5 in) in diameter are found on the beach, the contractor shall remove the object(s) immediately.** A vertical tolerance of plus 0.2 feet will be permitted in the grades and slopes, above elevation -2.4 NAVD 88 (mean low water). No minus tolerance will be permitted, except below elevation -2.4 NAVD 88 (mean low water) where the beachfill may be placed at a slope steeper, but not flatter, than the slopes shown on the drawings. The Contractor shall conduct his work operations so that no areas landward of the work limits shown on the drawings are disturbed. A spreader section shall be used at the discharge end of the pipeline for uniform distribution of the beachfill material. Land-based equipment shall be used for grading the beachfill material.

3.7.2 Removal of Debris

During the operation of placing beachfill material, all debris resulting from construction operations shall be removed from the work site and disposed of at the Contractor's expense. Such disposal shall comply with all applicable Federal, state, and local laws. Such materials shall be removed from the site of the work before the date of completion of the work under these specifications.

3.7.3 Restrictions on Beachfill Operations

The Contractor will be allowed to close the beach, utilizing temporary fencing, barricades, and signage, in 1000 foot sections to allow placement of beachfill. Acceptance of beachfill will be made in 1000 foot sections. After acceptance of a section, the Contractor shall advance the closed section of beach. All other sections of the beach, except staging areas, are to remain open to the general public. Ramps over the pipeline must be provided at all street ends and at boardwalk entrances to the beach to allow public access to the ocean. The Contractor shall ensure that any movement of pipeline or equipment is done, with recognition to the public presence, in accordance with the approved Accident Prevention Plan.

3.7.4 Placement of Beachfill Beneath Existing Beach Structures

Placement and grading of beachfill material by hand may be required beneath existing beach structures. The Contractor shall protect the existing beach structures from damage. Placement of beachfill material beneath structures shall be done in a manner that minimizes the ponding of water. If ponded areas are created due to the Contractor's operations the Contractor shall pump these areas dry at no expense to the Government. Any structures damaged shall be repaired at the expense of the Contractor.

3.7.5 Hydraulic and Hopper Dredges

All pipelines used with hydraulic dredges shall be kept in good condition at all times, and any leaks or breaks shall be promptly repaired. **Material excavated by hopper dredge shall be loaded into bins or hoppers and pumped directly to the beachfill area by a means which will prevent the loss of any material into the ocean.** Special care shall be taken to assure that hoppers do not leak during any phase of the contract work.

3.7.6 Accident Prevention Plan

Barricades, warning signs, and lights shall be provided by the Contractor, subject to the approval of the Contracting Officer as part of the accident prevention plan, for the protection and safety of the public using the adjacent beach areas. The beachfill dredge pipe shall be clearly marked with buoy signs or other signage approved by the Contracting Officer at a distance of 200 feet seaward of the low water line at all locations that the dredge pipe is landed. This sign shall warn the public of the location and danger of the submerged pipe. All barricades, warning signs, and lights shall be installed prior to the start of any work.

3.7.7 Removal of Stakes and Markers

The Contractor shall remove all stakes, markers, temporary fencing, burlap, piping, or other items used in the construction of the beach immediately after completion and before approval of an acceptance section, or as otherwise directed by the Contracting Officer. All stakes, markers, temporary fencing, burlap, piping, or other items used in the construction that become uncovered after approval of the acceptance section shall be removed immediately.

3.8 CONTRACTOR QUALITY CONTROL

3.8.1 Contractor Reports

The Contractor shall prepare and maintain Daily Report of Operations forms, and shall furnish signed copies thereof with the daily Quality Control Records required in Section 01450: CONTRACTOR QUALITY CONTROL to the Contracting Officer. Copies of the Daily Report of Operations forms to be used are included at the end of that Section. NOTE: The Contractor shall provide mapping of the borrow area, to scale, with the range and stationing used to identify the location of work, as indicated on the Report of Operations forms.

3.8.2 Samples and Testing

The Contractor shall obtain samples of beachfill material from the finished beach at 1000 foot intervals or as directed by the Contracting Officer and have them tested for grain size distribution in accordance with ASTM D 422. All testing shall be performed by a Corps of Engineers approved laboratory as specified in Section 01450: CONTRACTOR QUALITY CONTROL. Samples shall be obtained at approximately elevation +4.0 NAVD 88. The results of each test shall be recorded on NAD Form 2087, a copy of which is included in Section 00840 of this contract. The Contractor shall also record on ENG Form 2087 the location of the dredge within the borrow area and the depth of dredging at the time of placement of the sand sampled. Test results shall be submitted to the Contracting Officer within one week after completion of the laboratory testing.

3.8.3 Form Preparation

Instructions regarding the preparation of all required forms will be provided at the Contractor Quality Control Coordination Meeting.

3.9 MEASUREMENT AND PAYMENT

3.9.1 Mobilization and Demobilization

All costs connected with the mobilization and demobilization of the Contractor's plant and equipment required for placement of beachfill will be paid for at the contract lump sum prices for these items as listed in the Bidding Schedule. Sixty percent (60%) of the lump sum price will be paid to the Contractor upon completion of his mobilization at the work site. The remaining forty percent (40%) will be included in the final payment for work under this contract.

3.9.1.1 Contractor Furnished Cost Data

In the event the Contracting Officer considers that the amount in these items (sixty percent) which represents mobilization, does not bear a reasonable relation to the cost of the work in this contract, the Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid price. Failure to justify such price to the satisfaction of the Contracting Officer will result in the payment of actual mobilization costs, as determined by the Contracting Officer, at the completion of mobilization. The payment of the remainder of these items will be included in the final payment under the contract. The determination of the Contracting Officer in these circumstances is not subject to appeal.

3.9.1.2 Mobilization and Demobilization Costs

All costs in connection with the mobilization and demobilization of the Contractor's plant and equipment as defined below shall be included in the contract lump sum price for Bid Item No. 1, "Mobilization and Demobilization".

a. Mobilization shall include all costs for operations accomplished prior to commencement of actual beachfill placement; that is transfer of all plant and equipment to the work site, initial installation of pipelines, and all other incidentals in advance of beachfill placement operations.

b. Demobilization shall include general preparation for transfer of the plant and equipment to the Contractor's home or standby base, removal of pipelines, cleanup, and the transfer of plant and equipment to the home or standby base.

3.9.2 Ordnance Removal

In the event that the Contractor is required to perform any work specified in Paragraph "Ordnance Precautions", the payment will be made in conformance with the DIFFERING SITE CONDITIONS clause of the CONTRACT CLAUSES.

3.9.3 Placement of Beachfill

All beachfill material placed in the designated areas within the allowable tolerance will be measured for payment by the cubic yard in place on the

beach. The total number of cubic yards placed will be computed by the average-end-area method from cross-section surveys obtained by the Contractor immediately before and after the beachfill operations as required by Section 01720 SURVEY REQUIREMENTS and Special Clause: QUANTITY SURVEYS. The volume so computed will be the pay quantity for the contract. A deduction of one cubic yard will be made from the pay quantity for every cubic yard of material removed from the borrow area below -52.0 feet NAVD 88. Any deductions will be based on before-dredging surveys conducted immediately prior to dredging and after-dredging surveys conducted immediately following dredging. Payment for placing and grading the beachfill material will be made at the contract unit price per cubic yard for for "Beachfill," Base Bid Item No. 2, and Options Bid Item Nos. 9, 10, and 11 (if Options 1, 2, and/or 3 are awarded). Payment for this Bid Item shall also include full compensation to the Contractor for maintaining outfall drainage, performing all pre-placement condition surveys and quantity surveys, providing public safety personnel, and performing all material testing required. ***If the Contractor fails to remove boulders, cobbles, clay balls, or other debris from the beach, that completed fill section will not be accepted for payment.***

-- End of Section --

SECTION 02446

SAND FENCE AND DUNE GRASS

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all operations required for the erection of sand fence and the planting and seeding of dune grass, as specified herein and shown on the drawings.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. See Section 01330 SUBMITTAL PROCEDURES for all procedures related to the submission of submittals.

The following shall be submitted:

SD-07 Certificates

Sand Fence. Dune Grass Plants and Seed.

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

PART 2 PRODUCTS

2.1 SAND FENCE

The slats shall be No. 1 grade of White Cedar, Spruce, Douglas Fir or other approved species of wood substantially free from excessive wane, knots, decay, broken or short slats and unsquare ends. The slats shall be a full 3/8" thick by a full 1-1/2" wide by 4' high and unpainted. The wire shall be not less than 14 gauge with a zinc coating of not less than 0.3 oz./square foot of uncoated wire surface and it shall have a tensile strength of 65,000 to 80,000 psi. The slats shall be spaced 2 1/4" apart plus or minus 1/4". There shall not be less than 2 twists (one twist equals 360 degrees) of the wire between the slats. The five strands of wire shall be placed 10" apart and 4" from each end. The wire shall be woven in such a manner that the zinc coating shall not be removed nor the strength of the steel impaired. The fence shall be stretched after weaving and before being placed in rolls 50' in length.

2.2 DUNE GRASS

2.2.1 Plants

Plants shall be the Cape variety of American Beachgrass (*Ammophila breviligulata*). Each plant shall consist of two or more healthy culms. Plants which are damaged will not be accepted.

2.2.2 Seed

Seed shall be the Atlantic variety of coastal panicgrass (*Panicum amarum*).

2.2.3 Fertilizer

Fertilizer shall be 10-10-10 grade. Fertilizer shall be uniform in composition, free-flowing, and suitable for application with approved equipment.

PART 3 EXECUTION

3.1 SAND FENCE

The sand fence shall be erected in such a manner as to accumulate wind blown sand and thereby aid in the formation of a dune. Fence shall be erected in the locations and along the lines shown on the drawings. Posts shall be provided at a maximum spacing of 8 feet and shall be driven 4 feet into the ground. Fence shall be secured to posts with bottom portion of fence touching the ground surface. Fence shall be lashed to posts at the same locations as the picket bindings with an overhand knot of 14 gauge soft galvanized wire.

3.2 DUNE GRASS

3.2.1 General

The dunes shall be fertilized, planted, and seeded with beachgrass and panicgrass after construction of the dune has been completed.

3.2.2 Surface Preparation

All surfaces to be planted shall be graded with no sharp depressions greater than 2 inches in depth. All compacted areas shall be scarified to a depth of 3 inches prior to planting.

3.2.3 Planting Method

3.2.3.1 Beachgrass

One beachgrass plant consisting of two or more culms shall be planted per hole. All beachgrass plants shall be in a dormant state at the time of planting. The plants shall be placed at the density indicated on the contract drawings. Fertilizer shall be applied by broadcasting over planted and seeded areas at a rate of 500 lbs. per acre 30 days after the planting, but no earlier than April 1. Fertilizer application shall be repeated two or more times at the same rate between June 15th and July 1st and between August 31st and September 15th during the first year of establishment.

3.2.3.2 Panicgrass

The dunes shall subsequently be over seeded into the stands of American beachgrass with panicgrass from the centerline of the dune to the landside dune toe. The panicgrass shall be seeded at a rate of 10 pounds of seed (pure live seed) per acre. Seeds shall be planted 2.0 to 2.5 inches deep either by hand or by a mechanically operated drill or seeder. Care shall be exercised during panicgrass seeding to avoid trampling and damaging the planted beachgrass.

3.2.4 Planting Season

Beachgrass shall only be planted between 15 February and 21 March, under nonfrozen soil conditions. Panicgrass seeds shall only be planted between 15 February and 1 April.

3.2.5 Care and Protection

The Contractor shall be responsible for proper care and protection of all planted areas. At least 80% plant survival is required in areas at the end of the first growing season. Areas having less than an 80% survival rate shall be replanted and fertilized by the Contractor.

3.3 MEASUREMENT AND PAYMENT

3.3.1 Dune Grass

The work specified in this section for planting and seeding of dune grass will not be measured for payment. Payment for this work will be made at the contract lump sum price for "Dune Grass," Bid Item No. 7.

3.3.2 Sand Fence

The work specified in this section for sand fence, installed parallel to the dune centerline, will be measured for payment by the linear footage of sand fence installed. Payment for this work will be made at the contract unit price for "Sand Fence," Bid Item No. 8. (All sand fence incidental to construction of dune crossovers shall be included in the unit prices for those dune crossovers.)

-- End of Section --