

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1. CONTRACT ID CODE PAGE OF PAGES  
 1 2

2. AMENDMENT/MODIFICATION NO. 0002  
 3. EFFECTIVE DATE 05/30/03  
 4. REQUISITION/PURCHASE REQ. NO.  
 5. PROJECT NO. (If applicable)

6. ISSUED BY CODE U.S. Army Engineer District, Wilmington  
 69 Darlington Avenue (28403)  
 Post Office Box 1890 (28402-1890)  
 Wilmington, North Carolina  
 7. ADMINISTERED BY (If other than Item 6) CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  
 9A. AMENDMENT OF SOLICITATION NO. (X) DACW54-03-B-0010  
 9B. DATED (SEE ITEM 11) 04/28/03  
 10A. MODIFICATION OF CONTRACT/ORDER NO.  
 10B. DATED (SEE ITEM 11)  
 CODE FACILITY CODE

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended.  
 Offers 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 1 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 your 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 ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE	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  is not,  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.)  
 IFB NO. DACW54-03-B-0010...Maintenance Dredging, Manteo (Shallowbag) Bay, (Oregon Inlet) Ocean Bar, Dare County, North Carolina is amended as follows:

a. **SECTION 01355:** Delete existing Page 11 in its entirety and substitute enclosed revised page.

b. **SECTION 02325:** Delete existing Page 4 thru Page 14 in their entirety and substitute enclosed revised Page 4 thru Page 14.

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)
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA
15C. DATE SIGNED	16C. DATE SIGNED
(Signature of person authorized to sign)	(Signature of Contracting Officer)

14. DESCRIPTION OF AMENDMENT -- Cont'd

NOTE:

Text that is added or revised by this amendment is replaced in its entirety and underlined printed in bold and/or stamped appropriately.

The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not underlined with bold text.

c. DRAWING:

Delete existing Plate No. P-2 in its entirety and replace with enclosed liked-numbered revised Plate.

Encls  
As stated

individual of any protected species is found in the project area by the Contractor, it should be left undisturbed and the Contracting Officer should be notified immediately. The Contractor will also prepare and provide to the Contracting Officer written records detailing any such incident involving protected species within 24 hours of its occurrence.

### 3.3.2.1 Hopper Dredges

Hopper dredging poses a threat to sea turtles, which are subject to injury or death if they are sucked through the dredging system. The Contracting Officer will be notified immediately upon the take of any sea turtle. If two threatened sea turtle takes occur within 24 hours, work may continue while the Contracting Officer, through the Division Engineer, reconsults with the National Marine Fisheries Service. If two endangered sea turtle takes occur, work will cease while that reconsultation takes place. If a third sea turtle take occurs at any time, work will cease while the Contracting Officer prepares a risk assessment and coordinates with the Division Engineer and the National Marine Fisheries Service. If the risk of additional sea turtle takes is deemed too high, further hopper dredging may not be allowed. Should a take of 5 sea turtles (of any species mix) occur, for any reason, all hopper dredging work will be terminated.

The Wilmington District has requested and received a variance from the Corps' South Atlantic Division to dredge material from the Oregon Inlet Ocean bar with disposal of the dredged material in the approved nearshore area during the contract's time period. All other requirements (dragheads, observers, screening, etc.) are described in this section and will be strictly adhered to.

The use of hopper dredges is subject to specific requirements. Observer and reporting requirements are discussed below. Other specific requirements for hopper dredges are also discussed below.

### 3.3.2.2 Observers

Observers shall be used to monitor take of sea turtles and shortnose sturgeons and aid in avoidance of marine mammals.

a. The use of inflow screens and observers are required during all months except January and February. While inflow screens are in use, observer coverage shall be provided 24 hours a day. Observers shall have necessary permits from the State of North Carolina to work with sea turtles. During the period when inflow screens are not required, a daytime whale observer is still required, as discussed in subparagraph 'h' below.

b. Screens shall be examined for sea turtle and shortnose sturgeon parts after each filling of the hopper is complete. Other debris found on the screens during their examination for sea turtle parts shall be disposed of so as not to impede their functioning during the next loading cycle.

c. The time, date, and condition (fresh or decaying) of all turtle and sturgeon parts recovered shall be recorded. Reach dredged shall also be recorded (channel name and station numbers). Sea turtle or sturgeon parts unidentifiable to species shall be placed in plastic bags, labeled as to the time and date of collection, and frozen for later analysis. Identifiable sea turtle parts and whole specimens shall be frozen and the District Office contacted for directions on transport or disposition of specimens. For both sea turtle parts and whole specimens the observer shall take a tissue sample for genetic analysis. The District Office protocol (Appendix B) shall be adhered to and prepared samples submitted to NMFS - La Jolla, CA Laboratory, care of Dr. Peter Dutton (address referenced in protocol).

## 1.5 NAVIGATION AIDS

There may be aids to navigation within the project boundaries. Some, or all, of such aids to navigation may need to be removed for the accomplishment of the contract work. Before the commencement of dredging, it shall be the responsibility of the Contractor to examine all channels to determine any need for moving of aids to navigation and to coordinate with the U.S. Coast Guard (USCG) and any other responsible parties to accomplish any needed movement. Any impacts to the work due to the inability of the Contractor to accomplish any needed movement of aids to navigation will not be the responsibility of the United States Government or of the Contracting Officer.

## 1.6 OVERDEPTH

## 1.6.1 Overdepth

This contract allows overdepth dredging. No payment will be made for any material that is removed from below the allowable overdepth or outside of the indicated side-slopes.

## 1.6.2 Side-Slopes

Material actually removed, within limits approved by the Contracting Officer, leaving final side-slopes no flatter than 1 vertical to 5 horizontal will be paid for, whether accomplished by dredging the original position or the space below the pay slope plane and allowing upslope materials to fall into the cut.

## 1.6.3 Excessive Dredging

Material taken from beyond the limits as extended in provision, side-slopes above, will be deducted from the total amount dredged as excessive dredging and will not be credited.

## PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

## 3.1 ORDER OF WORK

The area to be dredge has been divided into three (3) acceptance sections. These Acceptance Sections are defined on the contract drawings and as follows:

Acceptance Section 1 - as shown on the contract drawings is the southern side of the channel for the entire length of the dredging area.

Acceptance Section 2 - as shown on the contract drawings is the northern side of the channel for the entire length of the dredging area.

Acceptance Section 3 - will be a final sweep of the full width and entire length of the dredging area.

The order of work is at the discretion of the Contractor unless otherwise directed by the Contracting Officer.

### 3.2 EQUIPMENT

The ocean bar channel dredging (bid item DERDGING, OCEAN BAR CHANNEL) may be performed by a hopper dredge.

#### 3.2.1 Hopper Dredge Equipment

Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors that are rigidly attached. No dredging shall be performed by a hopper dredge without a turtle deflector device that has been approved by the Contracting Officer.

##### 3.2.1.1 Deflector Design

The leading vee-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle."

(Information Only Note: The design "approach angle" or the angle of lower drag head pipe relative to the average sediment plane is very important to the proper operation of a deflector. If the lower drag head pipe angle in actual dredging conditions varies tremendously from the design angle of approach used in the development of the deflector, the 6" plowing effect does not occur. Therefore, every effort should be made to insure this design "approach angle" is maintained with the lower drag pipe.)

If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4".

##### 3.2.1.2 Inflow Basket Design

The Contractor shall install baskets or screening over the hopper inflow(s) with no greater than 4" x 4" openings. The method selected shall depend on the construction of the dredge used and shall be approved by the Contracting Officer's Representative prior to commencement of dredging. The screening shall provide 100% screening of the hopper inflow(s). The screens and/or baskets shall remain in place throughout the work except during the months of January and February.

The Contractor shall install and maintain floodlights suitable for illumination of the baskets or screening to allow the observer to safely monitor the hopper basket(s) during non-daylight hours or other periods of poor visibility. Safe access shall be provided to the inflow baskets or screens to allow the observer to inspect for turtles and sturgeons, or parts thereof, and clean the baskets or screens for the next loading cycle.

The inflow screens shall be maintained in operational condition throughout the period of their required use.

### 3.2.1.3 Hopper Dredge Operation

The Contractor shall operate the hopper dredge to minimize the possibility of taking sea turtles.

When initiating dredging, suction through the dragheads shall be allowed just long enough to prime the pumps, then the dragheads must be placed firmly on the bottom. When lifting the dragheads from the bottom, suction through the dragheads shall be allowed just long enough to clear the lines, and then must cease. Pumping water through the dragheads shall cease while maneuvering or during travel to/from the disposal area.

(Information Only Note: Optimal suction pipe densities and velocities occur when the deflector is operated properly. If the required dredging section includes compacted fine sands or stiff clays, a properly configured arrangement of teeth may enhance dredge efficiency which reduces total dredging hours and "turtle takes." The operation of a drag head with teeth must be monitored for each dredged section to insure that excessive material is not forced into the suction line. When excess high-density material enters the suction line, suction velocities drop to extremely low levels causing conditions for plugging of the suction pipe. Dredge operators should configure and operate their equipment to eliminate all low level suction velocities. Pipe plugging in the past was easily corrected when low suction velocities occurred by raising the drag head off the bottom until the suction velocities increased to an appropriate level. Arrangements of teeth and/or the reconfiguration of teeth should be made during the dredging process to optimize the suction velocities.)

Raising the drag head off the bottom to increase suction velocities is not acceptable. The primary adjustment for providing additional mixing water to the suction line should be through water ports. To insure that suction velocities do not drop below appropriate levels, the Contractor's personnel shall monitor production meters throughout the job and adjust primarily the number and opening sizes of water ports. Water port openings on top of the drag head or on raised stand pipes above the drag head shall be screened before they are utilized on the dredging project. If a dredge section includes sandy shoals on one end of a tract line and mud sediments on the other end of the tract line, the Contractor shall adjust the equipment to eliminate drag head pick-ups to clear the suction line.

Near the completion of each payment section, the Contractor shall perform sufficient surveys to accurately depict those portions of the acceptance section requiring cleanup. The Contractor shall keep the drag head buried a minimum of 6 inches in the sediment at all times. Although the over depth prism is not the required dredging prism, the Contractor shall achieve the required prism by removing the material from the allowable over depth prism.

During turning operations the pumps must either be shut off or reduced in speed to the point where no suction velocity or vacuum exists.

The Contractor must comply with all requirements of this specification and the Contractor's accepted Environmental Protection Plan. The contents of

this specification and the Contractor's Environmental Protection Plan shall be shared with all applicable crew members of the hopper dredge.

#### 3.2.1.4 Observers

Observers shall monitor take of sea turtles and shortnose sturgeon and aid in avoidance of marine mammals.

a. While inflow screens are in use, observer coverage shall be provided 24 hours a day. Observers shall have necessary permits from the State of North Carolina to work with sea turtles and shortnose sturgeons. During the period when inflow screens are not required, a daytime whale observer is still required, as discussed in subparagraph h, below.

b. Screens shall be examined for sea turtle and sturgeon parts after each filling of the hopper is complete. Other debris found on the screens during their examination for sea turtle or sturgeon parts shall be disposed of so as not to impede their functioning during the next loading cycle.

c. The time, date, and condition (fresh or decaying) of all turtle and sturgeon parts recovered shall be recorded. Reach dredged shall also be recorded (channel name and station numbers). Sea turtle or sturgeon parts unidentifiable to species shall be placed in plastic bags, labeled as to the time and date of collection, and frozen for later analysis. Identifiable sea turtle parts and whole specimens shall be frozen and the District Office contacted for directions on transport or disposition of specimens. For both sea turtle parts and whole specimens the observer shall take a tissue sample for genetic analysis. The District Office protocol (Appendix B) shall be adhered to and prepared samples submitted to NMFS - La Jolla, CA Laboratory, care of Dr. Peter Dutton (address referenced in protocol).

d. When multiple parts are taken, the observer shall determine, to the best of his ability, the number of sea turtles or sturgeons the multiple parts represent. The basis for the decision shall be noted (e.g., two left-front flippers, etc.)

e. The Contractor shall provide any unidentified sea turtle and sturgeon parts to the North Carolina Wildlife Resources Commission (Ms. Wendy Cluse, 252/728-6448 or cell: 252/349-9430) to be identified to species if possible. If positive identification is impossible, specimens shall be recorded as "unidentified sea turtle" or "unidentified sturgeon." After such examination is complete, all parts shall be properly disposed of.

f. The taking of any sea turtle or sturgeon parts shall be reported to the Contracting Officer immediately. Observer data sheets shall be faxed to the Contracting Officer as soon as possible after the take.

g. Sea turtles which are still alive when taken and appear to have a chance for recovery shall be transported by the contractor for treatment as soon as possible. The North Carolina Wildlife Resources Commission (Wendy Cluse 252/728-6448 or cell: 252/349-9430) shall be contacted to determine the appropriate facility to receive the turtle. If the turtle survives and is fit for release, the Contractor shall make arrangements to transport it to the ocean. If permanently handicapped, the Contractor shall seek a suitable aquarium for longterm care. If none can be found, the

turtle shall be released to the ocean after providing acceptable documentation of search efforts to the Contracting Officer.

h. From 1 December through 31 March one endangered species observer with at-sea large whale identification experience must be present to conduct daytime observations. During the months of December and March, one of the sea turtle observers may perform this observation work. Records shall be kept of the date, time, and approximate location of all marine mammal sightings. Care shall be taken not to closely approach any whales or manatees observed during dredging. The observer shall serve as a lookout to alert the vessel pilot of the occurrence of these animals. If any are observed, collisions shall be avoided either through reduced vessel speed, course, alteration, or both. During the evening hours, when there is limited visibility due to fog, or when there are sea states of greater than Beaufort 3, the dredge must slow down to 5 knots or less when transiting between areas if whales have been spotted within 15 nautical miles of the vessel's path within the previous 24 hours.

i. Reporting. Daily observer reports shall be submitted with the "Daily Report of Operations for Hopper Dredges". Reports of take of any listed species shall be furnished to the Contracting Officer as soon as possible.

### 3.3 AVOIDANCE OF MARINE MAMMALS

a. Records shall be kept of the date, time, and approximate location of all marine mammal sightings. Care shall be taken not to closely approach (within 300 feet) any whales, manatees, or other marine mammals during dredging or transportation of dredged material. The observer shall serve as a lookout to alert the dredge operator and/or vessel pilot of the occurrence of these animals.

b. If whales or manatees are observed within 300 feet of the area being dredged, all work shall cease until the animals have left the area. If any marine mammals are observed during transit to the nearshore disposal area, collisions shall be avoided either through reduced vessel speed, course, alteration, or both.

c. Sightings of whales or manatees in the work area shall be reported to the Contracting Officer as soon as possible. Sightings of whales shall also be reported as soon as possible to the NMFS Whale Stranding Network at 305-862-2850.

### 3.4 NOTICES

(a) The Contractor shall give the Contracting Officer five (5) days advance written notice before commencing work.

(b) The Contractor shall also be responsible for requesting Government before-dredging surveys, in writing five (5) days prior to beginning dredging in an acceptance section. The Contractor shall also be responsible for requesting Government after-dredging surveys, in writing, three (3) working days prior to completion of an acceptance section.

### 3.5 DREDGE POSITIONING SYSTEM

Each dredge shall be equipped with an electronic positioning system, capable of positioning the dredge in the channel with accuracies equal to contract payment surveys (Class 1), as specified in the U.S. Army Corps of Engineers Engineer Manual, EM 1110-2-1003 (Hydrographic Surveying), latest edition. This positioning system shall be established, operated, and maintained by the Contractor during the entire period of the contract. The positioning system shall be used to precisely locate the dredge and shall be capable of displaying and recording the dredge's location in an acceptable coordinate system which can be related to, or is directly based on, the North Carolina Lambert State Plane Coordinate System. Navigation channel control, and shore station control, if required, will be provided to the Contractor in the same North Carolina coordinate system prior to commencement of work. It shall be the responsibility of the Contractor to have the positioning/navigation system reviewed and inspected by the Contracting Officer's Representative prior to commencement of work.

### 3.6 MISPLACED MATERIAL

Any material, including material lost through leaks in the pipelines, that is deposited or allowed to flow elsewhere than in places designated or approved by the Contracting Officer will be considered as misplaced material. If, in the opinion of the Contracting Officer's Representative, this misplaced material will in any way be a hazard to navigation, to normal activities of the public, or to the environment, the Contractor shall remove such misplaced material and deposit it where directed at the Contractor's expense.

### 3.7 DISPOSAL OF DREDGED MATERIAL

The Government furnished disposal area is the nearshore disposal area as shown on contract drawings.

#### 3.7.1 Nearshore Disposal Area

(a) All material excavated by hopper dredge shall be deposited in the nearshore disposal area shown on the contract drawings.

(b) The nearshore disposal area is located south of the bar channel in nearshore waters of Pea Island between baseline stations 87+00 and 184+00. The disposal area is aligned generally parallel to and between the minus 11-foot and minus 17-foot local mean low water contours.

(c) All discharge points for the dredged material shall be located in such a manner as to prevent any material from spreading more than 250 feet outside the disposal area boundaries. If material is placed outside the disposal area boundaries, the Contracting Officer's Representative may direct the Contractor to remove the material and deposit it within the confines of the disposal area at no additional cost to the Government. During placement, the location of each dump shall be determined through the use of an electronic positioning system and a record kept of the location of the dump and the estimated amount of material in the dump.

(d) The material shall be deposited within the boundaries of the disposal area as shown on the contract drawings. Deposition shall begin at the south end of row 1 and continue northward until row 1 is full. After row 1 is full the Contractor shall begin at the south end of row 2 and

continue deposition northward until row 2 is full. This sequence shall be continued in sequence for row 3, row 4, row 5, and row 6. The Contractor shall use all portions of the disposal area to the maximum extent practicable. The Contracting Officer's Representative may direct placement anywhere within the disposal area at any time based on site conditions.

(e) The Contractor shall survey the nearshore disposal area once every 30 days during disposal operations, and immediately after completion of disposal operations.

### 3.8 DISPOSAL VERIFICATION

a. The Contractor shall prepare and operate under an approved ocean disposal verification plan. This plan shall include an automated system that will record the horizontal location and draft condition of the disposal vessel (scow or hopper dredge) from the time dredging ceases and the transit to the disposal area begins until dredging begins again. Vessel positioning as a minimum shall use differential global positioning. Required digital data to be collected and recorded for each load is as follows:

1. Sequential load number
2. Date
3. Time, vessel position, and draft in one minute intervals for the disposal cycle specified previously, positioning in North Carolina state plane coordinates, draft in feet.
4. Begin and end dump event times and positions

b. This data shall be maintained by the Contractor and provided to the Contracting Officer, in ASCII digital format on a 3.5 inch, 1.44 MB diskette or, or CD, or other format agreed to by the Contracting Officer.

c. The Contractor shall also maintain a manually documented dump event log on the form provided or equipment agreed upon by the Contracting Officer. This log shall contain the following and be submitted, on a daily basis to the Contracting Officer.

1. Sequential load number
2. Scow or disposal number (or name)
3. Date
4. End dump event time and state plane coordinates

d. The Contractor shall maintain an electronic spreadsheet data record of the ocean dumping project information. The spreadsheet shall be prepared in a form readily exportable to Microsoft Excel 5.0 and shall be similar to the sample form provided in Attachment 1. The spreadsheet shall contain the following:

1. Vessel Name

2. Sequential Load Number
3. Date (month/day/year)
4. Start Dump Time (24 hour clock)
5. Start Dump Position (x position NC State Plane Coordinate)
6. Start Dump Position (y position NC State Plane Coordinate)
7. Responsible party on watch
8. Estimated quantity in load (cy)
9. Dredging range or location

e. This spreadsheet shall be updated and submitted weekly in digital (electronic file) format to the Contracting Officer. The dump positions reported in the spreadsheet shall come from the silent inspector (Automated Navigation Recording).

f. The verification plan shall be in operation throughout dredging and disposal operations. The Contractor shall provide an example of the ocean disposal verification submittals prior to the disposal of the first load. If for any reason the verification data devices stop functioning, they shall be repaired or replaced immediately upon return to the work site. No vessel shall leave for the disposal site without the ability to collect and record the ocean disposal verification data specified. Material placed without the specified verification data shall be considered misplaced materials under this contract.

g. Horizontal location shall have an accuracy equal to or better than + or - 10 feet (horizontal repeatability). Vertical data (draft) shall have an accuracy of + or - 1/2 foot. Horizontal and vertical data shall be collected in sets and each data set shall be referenced to local date and time (to the nearest minute) and shall be referenced to the same geographic reference system used for the survey(s) shown in the contract drawings.

### 3.9 REPORTING REQUIREMENT

The Contractor will be required to prepare daily a "Report of Operations" (Attachments 4 and 5 of Section 01451) and furnish copies thereof to the Contracting Officer. The Contractor shall furnish daily a copy or copies of any Contractor forms or operational reports he routinely requires to be submitted by his field personnel.

### 3.10 COMPLIANCE WITH APPLICABLE NAVIGATION RULES AND REGULATIONS, MARINE EQUIPMENT

The Contractor shall ascertain that all vessels used in performance of this contract are commanded, equipped, navigated and/or operated in strict compliance with the general regulations of the Department of the Army and of the U.S. Coast Guard, including but not limited to, applicable safety, environmental, and navigational rules and regulations in the Code of Federal Regulations.

Installations (i.e., pipelines, pipeline risers and/or booster stations) as may be placed by the Contractor on or over the seabed of the work area are obstructions or structures in accordance with Title 33 CFR SUBPART 67.01. Such installations or portions thereof, are subject to applicable regulations set forth in Title 33 CFR, parts 64, 66 and 67. The responsibility for notifying the Commander, Fifth Coast Guard District, per Title 33 CFR SUBPART 67.40 and the responsibility of securing necessary installation approvals therefrom, rests with the Contractor. The further responsibility for maintaining and operating his job site installation and vessels in accordance with applicable laws also rests with the Contractor.

### 3.11 FLOATING PLANT INSPECTION AND CERTIFICATION

All floating plant regulated by the U.S. Coast Guard (USCG) shall have current inspections and certificates issued by the USCG before being placed in service and a copy shall be posted in a public area on board the vessel. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be onboard the vessel and shall be available to the Contracting Officer upon request.

All dredges and quarter boats not subject to USCG inspection and certification or not having a current American Bureau of Shipping (ABS) classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least five years experience in commercial marine plant and equipment. All other plant shall be inspected annually by a qualified person. The inspection shall be documented, and a copy of the most recent inspection report shall be posted in a public area on board the vessel and a copy shall be furnished to the Contracting Officer upon request. The inspection shall be appropriate for the intended use of the plant and shall, as a minimum, evaluate structural integrity and compliance with NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft.

### 3.12 QUALITY CONTROL

The Contractor shall establish and maintain quality control for the dredging and all other operations in connection therewith to assure compliance with contract requirements. The Contractor shall inspect for compliance with contract requirements and record the inspection of all operations including but not limited to the following:

Dredging is confined within the limits shown on the drawings.

A copy of these quality control records, as well as the records of corrective action taken shall be furnished the Government as directed by the Contracting Officer.

### 3.13 MEASUREMENT AND PAYMENT

(a) The total volume of all material removed and to be paid for under this contract will be measured by the cubic yards in place, by computing the volume between the bottom surface shown by soundings of the last survey before dredging each acceptance section and the bottom surface shown by the soundings of a survey made as soon as practicable after completion of each

acceptance section. The calculations will exclude any volume of material removed from beyond the limits of the side-slopes and/or below the allowable overdepth and will be further reduced by the volume of any misplaced material. All pay quantities shall be determined from before and after dredging surveys conducted by the Government

(b) The drawings referred to in Section 01100, paragraph, CONTRACT DRAWINGS AND SPECIFICATIONS, are believed to represent the conditions existing on the dates of survey. The bottom conditions will be determined by before dredging surveys prior to commencement of dredging and new maps representing the before dredging bottom conditions of the area to be dredged will be furnished to the Contractor. Determination of quantities removed and the deductions made therefrom to determine quantities by in-place measurement to be paid for in the areas specified, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

(c) Monthly partial payments will be based on approximate quantities determined by the information from soundings taken behind the dredge. Discrepancies in the estimated amounts will be adjusted as required to conform with volumes computed in accordance with paragraph (a) above. Quantities calculated shall be based upon satisfactory hydrographic surveys performed by the Contractor in a manner agreed upon by the Contracting Officer.

(d) Method of Survey. Topographic and hydrographic surveys will be performed by the Government to determine the volume of material removed under this contract. Topographic surveys will be accomplished using GPS techniques. Hydrographic surveys will be accomplished with the use of a fully automated survey vessel. Horizontal location of survey lines and depth sounding points will be determined by the use of an automated positioning system utilizing either a microwave line-of-sight system or differential global positioning system. Depth soundings will be taken using a 200 kHz/28 kHz depth sounder/digitizer system. Payment for material removed will be based on 200 kHz depth soundings and topographic surveys. The fathometer will be adjusted twice daily using the bar check method to account for variations of the speed of sound in the water at the survey area. On automated surveys, position and depth data will be collected, stored on magnetic media, and subsequently processed by the Government for map preparation and quantity computations.

(e) Data will be secured by running survey lines parallel to the longitudinal axis of the channel. A sufficient number of lines will be run to assure good coverage of the bottom. A minimum of two (2) lines will be run within the grade slopes. The after dredging survey will be performed in the same manner as the before dredging survey. Weather permitting, before and after dredge surveys will be made during the same tidal stage.

### 3.14 COMMUNICATIONS

The Contractor shall furnish and maintain a radiotelephone and a cellular phone on the dredge(s) throughout the period of the contract. The plant will not be allowed to begin work until the VHF marine band radio is installed and in good working order and a properly operating cellular phone is on board. The VHF marine band radio shall be capable of operation from the dredge's main control station and capable of transmitting and receiving

on a frequency or frequencies within the 156-162 megahertz band using the classes of emissions designated by the Federal Communications Commission.

3.15 LOCAL OFFICE

The Contractor shall maintain an office in the immediate vicinity of the project. This office shall be equipped with at least one operable telephone and fax machine, which provides both local and long distance service. The number for this equipment shall be provided to the Contracting Officer's Representative during the preconstruction conference, and the telephone shall be monitored and answered by contractor personnel during working hours. This requirement may be waived by the Contracting Officer if suitable facilities are available on the dredge.

3.16 EXISTING STRUCTURES

The Contractor shall exercise appropriate care when dredging adjacent to or in the vicinity of existing structures. Any damage to existing structures caused by impact from the dredge or other plant or by dredging in excess of specified limits, shall be repaired to the satisfaction of the Contracting Officer at no cost to the Government or to the owners of the structure.

3.17 QUANTITIES SUMMARY

The quantities listed in the table below include the volumes present at the time of the surveys indicated in the contract drawings, plus shoaling anticipated before dredging begins.

Should the total quantity of material to be paid for under the contract exceed the limit established in the clause entitled "Variations In Estimated Quantities-Dredging" additional time will be allowed at the rate of one (1) calendar day for the average daily production rate achieved by the equipment used on the project for excavation in excess of the established limit.

<u>Acceptance Section</u>	<u>Required Depth (ft)</u>	<u>Cubic Yard to Required Depth (Including Anticipated Shoaling)</u>	<u>1-Foot Allowable Overdepth</u>	<u>Total Cubic Yards</u>
1. Bar Channel	<u>-16</u>	<u>213,500</u>	<u>36,500</u>	250,000

-- End of Section --