

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. 0001			J	1
3. EFFECTIVE DATE 1-August-2003		4. REQUISITION/PURCHASE REQ. NO. W25PHS-3010-6204		5. PROJECT NO.(If applicable)
6. ISSUED BY CONTRACTING DIVISION WANAMAKER BUILDING 100 PENN SQUARE EAST PHILADELPHIA PA 19107-3390		CODE DACW61	7. ADMINISTERED BY (If other than item 6) US ARMY ENGINEER DISTRICT, PHILADELPHIA POC: SANDI FLETCHER WANAMAKER BUILDING 100 PENN SQUARE EAST PHILADELPHIA PA 19107-3390	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			X	9A. AMENDMENT OF SOLICITATION NO. DACW61-03-B-0006
			X	9B. DATED (SEE ITEM 11) 15-Jul-2003
				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 type="checkbox"/> is extended, <input checked="" 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.				
MAINTENANCE DREDGING, STA. 162+308 TO STA. 250+440, INLAND WATERWAY, DELAWARE RIVER TO CHESAPEAKE BAY, DE & MD				
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 checked="" 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.) THIS AMENDMENT DOES NOT EXTEND THE 14 AUGUST 2003 BID OPENING DATE AT 11:00 AM				
(CONTINUED)				
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		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA
_____ (Signature of person authorized to sign)				BY _____ (Signature of Contracting Officer)
				16C. DATE SIGNED

14. DESCRIPTION OF AMENDMENT (continued)

a. **Section 00010 - BIDDING SCHEDULE:** - Please delete page 00010-3 in its entirety and insert new page of the same number in its place, annotated Amendment No. 0001, attached hereto.

b. **SPECIAL CONTRACT REQUIREMENTS:**

(1) SECTION 00800 - SPECIAL CLAUSES - Please delete pages 00800-3 and 00800-4 in their entirety and insert the new pages of the same numbers, annotated Amendment No. 0001, attached hereto.

(2) SECTION 00815 - WAGE RATES - Please delete pages 00815-1 through 00815-4 in their entirety.

(3) SECTION 00855 - ABSTRACT OF BOTTOM SAMPLES - Please delete pages 00855-2 through 00855-3 in their entirety and insert new page 00855-2, annotated Amendment No. 0001, attached hereto.

(6) SECTION 02325 - DREDGING - Please delete Section 02325 in its entirety and insert new section of the same number, annotated Amendment No. 0001, attached hereto.

c. **DRAWINGS:**

(1) DRAWING NOS. 62004, 62005, 62006, 62007, 62008, 62009, 62010, 62013, and 62014- Please delete the listed drawing in their entirety and insert the revised drawings of the same numbers with revision date of 31 July 2003, attached hereto.

d. Please indicate receipt of this amendment on Standard Form 1442(SOLICITATION, OFFER, AND AWARD) as Amendment No.0001. Failure to acknowledge all amendments may be cause for rejection of the bid.

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BIDDING SCHEDULE  
(To be attached to SF 1442)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
1.	Mobilization & Demobilization	1	JOB	L.S.	\$
2.	Removal and Satisfactory Disposal of Material	<b>1,167,314</b>	CY	\$	\$
TOTAL ESTIMATED AMOUNT					\$

NOTE: Bidders must bid on all items.

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e. If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the Contractor shall give written notice to the Contracting Officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

f. No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The Contractor shall be entitled to simple interest on any payment that the Contracting Officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

g. Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the Contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

h. An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

i. If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the Contractor, by written notice delivered to the Contracting Officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

j. If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the Contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the Contractor, to reduce said reservation by the amount of such excess. (EFAR 52.232-5001)

#### SC-4 CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS

a. Upon obtaining the plans and specifications, the Contractor shall:

- (1) Immediately check the specifications and all drawings;
- (2) Compare the specifications and all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies; and
- (4) Be responsible for any errors which might have been avoided by complying with this paragraph

b. Large scale drawings shall, in general, govern small scale drawings. Figures marked on drawings shall, in general, be followed in preference to scale measurements.

c. The work shall conform to the specifications and the contract drawings identified on the following, all of which are available in the office of the District Engineer, U.S. Army Engineer District, Philadelphia, Room 643, Wanamaker Building, 100 Penn Square East, Philadelphia, PA 19107. Drawings are titled: "Maintenance Dredging Sta. 162+308 to Sta. 250+440, Inland Waterway, Delaware River to Chesapeake Bay, Delaware and Maryland", and have the following drawing numbers, subtitles, and dates.

d. Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the contractor from performing such omitted or misdescribed details of the work, but shall be performed as if fully and correctly set forth and described in the drawings and specifications.

Drawing No.	Subtitle	Date	<u>Latest</u> Revision Date
62003	General Plan, Vicinity Map, and List of Drawings	15 July 2003	None
62004	Soundings-C&D IWW (A.S. #1)	15 July 2003	<b>7/31/03</b>
62005	Soundings-C&D IWW	15 July 2003	<b>7/31/03</b>
62006	Soundings-C&D IWW	15 July 2003	<b>7/31/03</b>
62007	Soundings-C&D IWW (A.S.#2 to A.S. #6)	15 July 2003	<b>7/31/03</b>
62008	Soundings-C&D IWW (A.S.#6 to A.S. #9)	15 July 2003	<b>7/31/03</b>
62009	Soundings- C&D IWW (A.S.#10 to A.S. #12)	15 July 2003	<b>7/31/03</b>
62010	Soundings- C&D IWW (A.S. #13)	15 July 2003	<b>7/31/03</b>
62011	Soundings (Overboard Disposal Area- Site 92)	15 July 2003	None
62012	Soundings (Overboard Disposal Area- Site 92)	15 July 2003	None
62013	Channel Cross Sections	15 July 2003	<b>7/31/03</b>
62014	Channel Cross Sections	15 July 2003	<b>7/31/03</b>

SC-5 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor. (FAR 52.236-4)

a. The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys.

b. Tide Data. The following mean ranges of tides in the project waterway are approximate and reflect the NOAA Tide Table values for the following locations:

Pooles Island (Chesapeake Bay)	1.2 feet
Chesapeake City (Back Creek)	2.7 feet
Reedy Point (Delaware City)	5.5 feet

A table correlating mean low water to the Corps of Engineers Chesapeake and Delaware Canal Datum is included as Section 00870 of this contract. The channel depths specified herein and shown on the drawings are referenced to

ABSTRACT OF BOTTOM SAMPLES										DATE OF SAMPLING: 7/16/03			SAMPLING BY: Shuman	
LOCATION: Chesapeake Bay										DATUM: USACE MLW			DENSITY BY: Dan Kelly	
NUMBER	STATION	NORMAL DISTANCE	MACHINE SOUNDING	LEAD LINE LIGHT	LEAD LINE HEAVY	HARPOON DEPTH	SAMPLE RETAINED	BOTTOM DEPTH	DENSITY (g/L)	REMARKS				
1HA	163+654	120'S	36.1	36.1	38.1	39.1	1'		1278	TOP 1' MUD				
1HB	163+654	120'S	36.1	36.1	38.1	39.1	1'		1156	MIDDLE 1' MUD				
1HC	163+654	120'S	36.1	36.1	38.1	39.1	1'		1258	BOTTOM 1' MUD				
2HA	202+000	150'S	39.1	39.1	40.1	42.1	1'		1208	TOP 1' MUD				
2HB	202+000	150'S	39.1	39.1	40.1	42.1	1'		1225	MIDDLE 1' MUD				
2HC	202+000	150'S	39.1	39.1	40.1	42.1	1'		1300	BOTTOM 1' MUD				
3HA	210+000	C/L	37.3	37.3	38.1	40.3	1'		1284	TOP 1' MUD				
3HB	210+000	C/L	37.3	37.3	38.1	40.3	1'		1240	MIDDLE 1' MUD				
3HC	210+000	C/L	37.3	37.3	38.1	40.3	1'		1292	BOTTOM 1' MUD				
4HA	214+000	C/L	38.1	38.1	38.6	41.1	1'		1244	TOP 1' MUD				
4HB	214+000	C/L	38.1	38.1	38.6	41.1	1'		1196	MIDDLE 1' MUD				
4HC	214+000	C/L	38.1	38.1	38.6	41.1	1'		1370	BOTTOM 1' MUD				
5HA	219+053	150'S	36.6	36.6	37.6	39.6	1'		1235	TOP 1' MUD				
5HB	219+053	150'S	36.6	36.6	37.6	39.6	1'		1163	MIDDLE 1' MUD				
5HC	219+053	150'S	36.6	36.6	37.6	39.6	1'		1177	BOTTOM 1' MUD				
6HA	229+500	150'S	39.2	39.2	40.7	42.2	1'		1237	TOP 1' MUD				
6HB	229+500	150'S	39.2	39.2	40.7	42.2	1'		1298	MIDDLE 1' MUD				
6HC	229+500	150'S	39.2	39.2	40.7	42.2	1'		1169	BOTTOM 1' MUD				
7HA	234+000	170'N	39.3	39.3	40.3	42.3	1'		1250	TOP 1' MUD				
7HB	234+000	170'N	39.3	39.3	40.3	42.3	1'		1249	MIDDLE 1' MUD				
7HC	234+000	170'N	39.3	39.3	40.3	42.3	1'		1288	BOTTOM 1' MUD				
8HA	248+500	470'N	34.6	34.6	35.9	37.6	1'		1222	TOP 1' MUD				
8HB	248+500	470'N	34.6	34.6	35.9	37.6	1'		1194	MIDDLE 1' MUD				
8HC	248+500	470'N	34.6	34.6	35.9	37.6	1'		1304	BOTTOM 1' MUD				

NADP FORM 786

Jan-68

REPLACES EDITION OF 1 FEB 57, WHICH IS OBSOLETE

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SECTION 02325

DREDGING

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT PRICE

The contract price per cubic yard for dredging shall include the cost of removal and disposal of all materials as specified herein or indicated on the drawings, with the exception of ledge rock, large boulders, rock fragments, wrecks, snags, stumps, and piles which cannot be removed or buried below project depth without blasting. Should ledge rock or other material which cannot be removed without blasting be encountered, the Contractor shall remove therefrom all overlying material which in the judgment of the Contracting Officer can be removed. Nothing in this paragraph shall be construed as prohibiting the removal of excepted material by special means at prices agreed upon and approved in accordance with the Contract Clause entitled: DIFFERING SITE CONDITIONS.

1.2 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

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

EM 1110-2-1003 (1 Jan. 2002) Hydrographic Surveying Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

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

1.3 ORDER OF WORK AND DREDGING RESTRICTIONS

The order of work by specific acceptance sections will be determined by the Contracting Officer. Dredging of material under this contract shall only be performed by bucket dredging with bottom dumping scows. Dredging of material to be disposed of in overboard areas and any redistribution of dredged material shall only be performed from 1 October through 31 March.

1.4 CHARACTER OF MATERIALS

a. The material to be removed, to restore the depth to within the limits called for in the specifications and Contract Drawings, is that composing the shoaling which has occurred since the channel was last dredged as noted in the Special Clauses. The character of the material is believed to be as indicated by the results of Government-conducted sampling. Abstract of bottom samples are included as Section 00855 ABSTRACT OF BOTTOM SAMPLES. The materials consist mainly of silt, with some clay, sand and gravel.

Samples of material are available for inspection at the Fort Mifflin Project Office, Fort Mifflin, PA, (adjacent to the Philadelphia Airport).

b. It is the Government's position that sufficient information has been provided in this contract package to enable the Contractor to establish the type and quantity of material to be removed. However, prior to bidding, the Contractor may, at his discretion and expense, conduct additional investigation to further determine conditions at the site.

#### 1.5 SITE CONDITIONS

Bidders are expected to examine the site of the work, including the disposal area and decide for themselves as to the conditions affecting their operations. See the Contract Clause entitled: SITE CONDITIONS AND CONDITIONS AFFECTING THE WORK. The entire work site is designated as a hard hat area in accordance with EM 385-1-1.

#### 1.6 FUEL OIL HANDLING

The Contractor shall assure that all fuel oil transfer operations to or from his plant comply with all Federal, state, and municipal laws, codes and regulations. The Contractor shall incorporate in his accident prevention program, submitted in compliance with the Contract Clause entitled: ACCIDENT PREVENTION, sufficient information to demonstrate compliance with 33 CFR 156 and any other applicable laws, codes, and regulations.

#### 1.7 DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) EQUIPMENT

The Contractor must have pressure differential gages and DGPS to record drop locations. Recording of the barges location shall also be recorded every (15) minutes and available to the inspector or contracting officer or representative on a daily basis. The Contractor shall be required to provide reliable data to estimate the volume of dredged material in each scow. This would include providing ullage tables for each scow. The Contractor shall conduct his work in accordance with the requirements for a Class 1 Survey, as defined in the U.S. Army Corps of Engineers Hydrographic Surveying Manual EM 1110-2-1003, dated 1 January 2002. The Contractor shall provide real time positioning 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 and submitted to the Contracting Officer on a daily basis. The DGPS shall indicate the position of the dredge and each dump scow. The position of each scow shall automatically be recorded when the dump scow discharges.

#### 1.8 SUBMITTALS

Government approval is required for submittals with "G" designation; submittals having no designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

NOTE: Any submittals classified as "SD-01 Preconstruction Submittals" are submittals required to be submitted to, and approved by, the CO prior to mobilization to the contract work site. All other submittals, classified as "SD-02" through "SD-11," shall be submitted to, and approved by, the CO prior to commencing the particular task to which the submittal is associated.

SD-01 Preconstruction Submittals

#### Operations Plan; G CO

The Contractor will be required to have at the pre-construction meeting a complete work or operations plan documenting dredging and placement activities based upon the surveys and requirements within the contract specifications. This plan must include as a minimum a gridded layout of the disposal area for proposed scow placement areas labeling order of work and placement locations. Order of work shall follow according to that as described in the disposal area section of the specification. Approval to proceed with placement operations will be granted after the dredged material placement operations plan has been approved. Any changes to the agreed upon work plan must be officially submitted and approved prior to implementation by the Contractor. Status update meetings between the Contractor, the Philadelphia District and the State of Maryland will take place at agreed upon intervals during the contract to discuss the placement activities as originally planned by the Contractor, proposed changes to the Contractor's work plan and overall progress of the maintenance dredging contract (i.e. before and after surveys and overboard disposal area placement progress surveys). The first meeting will take place during the pre-construction meeting or immediately preceding any dredge activity.

#### SD-03 Product Data

#### Vessel and Equipment List; G CO

The Contractor shall submit for approval a complete list of all vessels and equipment to be used during the contract, including all dredging plants, supporting vessels, and equipment. The vessel list shall contain the types, the numbers of each, the draft of each, and all other pertinent information.

#### SD-06 Test Reports

#### Daily Report of Operations; G CO

The Contractor shall prepare, maintain, and submit daily for approval, Daily Report of Operations forms, and shall furnish signed copies thereof with the Quality Control Reports required in SECTION 01450: CONTRACTOR QUALITY CONTROL, to the Contracting Officer. Copies of the Daily Report of Operations forms to be used are attached at the end of this section. Further instructions on the preparation and submittal of the forms will be provided at the Pre-Dredging Coordination Meeting.

#### DGPS Positioning

Records of position during dredging and overboard disposal operations shall be recorded on disk every 15 minutes and submitted to the Contracting Officer on a daily basis.

#### Scow Discharge Report

Contractor shall submit daily the scow discharge report. Sample report is shown at the end of this section. Report shall be faxed daily to the U.S. Army COE Philadelphia District Office.

### 1.9 GOVERNMENT PLANT

Government plant may perform dredging or use disposal sites in any C & D Canal assignment area during the time of this contract.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 DISPOSAL OF EXCAVATED MATERIAL

3.1.1 General

The material excavated shall be transported to and deposited in the overboard disposal area known as Site 92 in the Upper Chesapeake Bay, as specified herein and as shown on the Contract Drawings. Deposition of material must be by bottom dump scows. Placement of material is restricted to -14 feet (+/- 0.5 feet) NOAA MLLW by the West Sailing Course, setbacks as depicted on the drawings (500 feet on each side) and also due to concerns of potential sediment transport.

3.1.2 Government Quality Control Monitor

The Government may place a Government monitor aboard the Contractor's dredge or supporting vessels to monitor quality control conditions during dredging and disposal operations.

3.1.3 Misplaced Material

Any material deposited in places other than those designated or approved by the Contracting Officer, or which escapes from such places, will not be paid for. The Contractor may be required to remove such misplaced material in accordance with the Contract Clause entitled: OBSTRUCTION OF NAVIGABLE WATERWAYS, and deposit it where directed, at the Contractor's expense.

3.1.4 Hydraulic Dredging

Hydraulic pipeline dredging will not be permitted under this contract.

3.1.5 Hopper Dredging

Hopper dredging will not be permitted under this contract.

3.1.6 Bucket Dredging

Material excavated by bucket (bucket, drag or dipper) dredges shall be placed in scows to overflow only and transported to the disposal area (Site 92) as shown on the Contract Drawings. No rehandling basin shall be used. The Contractor shall be required to provide reliable data to estimate the volume of dredged material in each scow. The Contractor shall provide ullage tables for each scow. The Contractor shall install a minimum of four (4) material boards evenly within the scow. The Contractor shall record material elevation readings and estimate the dredged material volume for each scow, at the dredging site (immediately prior to hauling) and at Site 92 (immediately prior to unloading). The scows or accompanying tug shall be equipped with DGPS system to record the scows position and location of each scow discharge and saved on disc for file purposes. This information and the required daily reports will be given to the inspector or contracting officer or representative on a daily basis. This is necessary requirement as coordination activities regarding the monitoring of overboard dredge material placement within the Pooles Island area. The

scows shall be unloaded by instantaneous bottom dumping. The Contractor shall proceed with care during the transportation and unloading of the scows, to preclude any loss of material to the waterway prior to deposit in the disposal area. All scows shall be kept in good condition and the coamings kept in good repair. The decks of all loaded scows shall be washed before they are moved from the loading area.

### 3.2 DEVELOPMENT AND OPERATION OF SITE 92

#### 3.2.1 General

Prior to the use of Site 92, the Contractor shall submit the disposal operations plan specified in the Paragraph entitled: SUBMITTALS to the Contracting Officer for approval. At least 7 days prior to the use of any Government-owned land and facilities, the Contractor shall contact Mr. James Tomlin, Chesapeake City Resident Engineer at (410) 885-5621/5622. The Contractor shall also be responsible for the maintenance and repair of all Government-owned land, roads, and facilities used by him under the contract. The Contractor shall conduct his work in accordance with the approved disposal operations plan; however, approval of the plan by the Contracting Officer does not in any manner relieve the Contractor of his responsibility for the adequacy of the work.

#### 3.2.2 Overboard Disposal Area Operations

##### 3.2.2.1 Disposal Area Markings

The Contractor shall delineate the limits of Site 92 disposal area with piles, buoys, or other approved markers. All lights and signals as may be prescribed by the U.S. Coast Guard to show the limit markers shall be installed and maintained at the expense of the Contractor. Any limit markers installed shall be removed upon completion of use of Site 92. Site 92 is approximately 934 acres with boundaries as follows:  
Beginning at the western-most point at 39 15 05.07N, 076 17 40.37W,  
running thence to 39 15 52.89N, 076 16 30.76W,  
running thence to northern-most point at 39 16 00.35N, 076 16 16.10W,  
running thence to 39 15 56.19N, 076 15 59.30W,  
Running thence to 39 14 59.24N, 076 16 02.88W,  
Running thence to southern-most point at 39 14 29.95N, 076 17 01.16W,  
and running thence to the point of beginning.

##### 3.2.2.2 Overboard Disposal

The Contractor shall deposit the dredged material in Site 92 by bottom dumping scows. The material must be placed within the limits of the setbacks as outlined on the disposal area contract drawings. The material shall be placed in a uniform manner by successively dumped loads starting from the southernmost portion of the site then proceeding northward. All material is to be placed with no movement northward until each row or section as laid out in the disposal area plan is uniform and at an elevation of -14 feet (+/- 0.5 feet) NOAA MLLW. The scow placement shall travel in the direction as shown on the contract drawings, and each "scow row" shall be brought to the maximum height of -14 feet NOAA MLLW before commencing placement in each subsequent "scow row". Upon completion of this contract, the lower portion of the overboard site shall be relatively flat and maximized to the height restriction as stated. This could involve dragging operations within the site, which must be coordinated with the Government at least 72 hours prior to beginning operations, based on requirements of the State of Maryland regulatory agencies. These dragging

operations will be performed at the expense of the Contractor. This determination will take place approximately 2-3 weeks after completion of placement at the site and after final surveys have been completed and analyzed. All material must be placed in such a manner as to be completely contained (including side slopes) within the site boundaries. Placement progress will be evaluated by the Government based on surveys at approximately 25, 50, 75 and 100 percent completion. Prior to dumping the dredged material, the scow shall be brought to a complete stop and the exact location of the scow and the approximate quantity of material to be disposed of shall be recorded. The exact location of each dumped load of dredged material shall be electronically recorded and submitted as specified in the Paragraph entitled: "SUBMITTALS". The coordinates and approximate quantity shall be noted on a separate discharge report and attached to the daily QC report. The anticipated location of each load of material shall be determined by the Contractor in accordance with the requirements specified herein and shall be submitted as part of the Operations Plan specified in the Paragraph entitled: "SUBMITTALS". Barges shall be equipped with pressure differential gages and DGPS to record drop locations. Recording of the barge location shall also be recorded every fifteen (15) minutes and be submitted to the inspector or Contracting Officer or representative on a daily basis. The Contractor shall maintain his own access to the entire disposal area, and shall ensure that the sequence of distribution of dumped loads allows for disposal of material across the entire limits of the disposal area, as shown on the contract drawings. In no case shall the final elevation of the deposited material be permitted above the elevation -14.0 feet NOAA MLLW. Any material placed above -14.0 feet NOAA MLLW shall be redistributed to below this maximum elevation by the Contractor, at no additional cost to the Government. The Government retains the right to direct disposal of material to a specific location within the specified disposal area, at no additional cost to the Government. A Government plant may perform dredging or use the overboard disposal area during the time of this contract. Overboard disposal shall be limited to placement of no more than 1,500,000 cubic yards of material under this contract.

#### 3.2.2.3 Status Update Meetings

Status update meetings between the Contractor, the Philadelphia District, and the State of Maryland will take place at agreed upon intervals during the contract to discuss the placement activities as originally planned by the Contractor, proposed changes to the Contractor's work plan and overall progress of the maintenance dredging contract (i.e. before and after surveys and overboard disposal area placement progress surveys). The first meeting will take place during the Pre-Construction meeting or immediately proceeding any dredge activity. The Contractor will be required to have at the pre-construction meeting a complete work plan documenting dredging and placement activities based upon the surveys and requirements within the contract specifications. This plan must include a gridded layout of the disposal area for proposed scow placement areas labeling order of work.

#### 3.2.2.4 NMFS Observer

The Government may be required to provide a National Marine Fishery Services (NMFS) observer during certain times of the dredging and placement operations. The Contractor shall accommodate such an observer aboard his plant. This observer would be contracted separately by the Government and shall not be included in the Contractor's bid.

#### 3.2.2.5 Special Requirements for Operations Within Restricted Waters

If the Contractor's disposal operations plan calls at any time for any of his operations to enter the restricted waters of the Aberdeen Proving Ground, the Contractor shall provide Aberdeen Proving Ground with the necessary communications equipment to maintain radio contact with the dredge or any of the Contractor's vessels. The equipment shall be installed in B-Tower Building #646. Entry into the restricted waters of Aberdeen Proving Ground shall be on a non-interference basis with the test operations. Test operations are conducted on Monday through Friday from 8:00 am to 4:30 pm. Normally, the restricted waters will be open during the following periods:

- (1) Mondays through Thursday - 5:00 pm to 7:30 am;
- (2) Saturday and Sunday - 5:00 pm Friday to 7:30 am Monday; and,
- (3) National Holidays - 5:00 pm on the day before the holiday until 7:30 am the day after the holiday (State holidays excluded).

### 3.3 OVERDEPTH AND SIDE SLOPES

#### 3.3.1 Overdepth

To cover inaccuracies of the dredging process, material actually removed from within the contract limits shown on the drawings to a depth of not more than 1 foot below the required depth, limited by a vertical plane through the required depth contour, will be estimated and paid for at the contract unit price for dredging.

#### 3.3.2 Side and End Slopes

No side or end slopes are specified for this contract. Dredging shall be performed to a point extending 25 feet outside the channel edges, where shoaling occurs along the channel edge within the contract limits, unless otherwise directed by the Contracting Officer.

#### 3.3.3 Excessive Dredging

Material taken from beyond the limits specified in the Paragraphs entitled: "Overdepth" and "Side and End Slopes" will be deducted from the total amount dredged as excessive dredging for which payment will not be made. Nothing herein shall be construed to prevent payment for the removal of shoals performed in accordance with the applicable requirements of the Special Clauses entitled: FINAL EXAMINATION AND ACCEPTANCE and SHOALING.

### 3.4 ESTIMATED QUANTITIES

The total estimated quantity of material necessary to be removed within the specified limits as shown on the drawings, including allowable overdepth and areas outside the channel limits as previously specified, is as follows for each of the acceptance sections:

Acceptance Section	Station to Station	Req'd Dredging (40 ft. Depth) (CY)	Allowable Overdepth (1') (CY)	Total Available (CY)
1	162+308 to 165+002	<b>28,446</b>	<b>11,647</b>	<b>40,093</b>
2	198+000 to 201+000	<b>8,116</b>	<b>17,047</b>	<b>25,163</b>
3	201+000 to 204+000	<b>24,772</b>	<b>36,328</b>	<b>61,100</b>
4	204+000 to 207+000	<b>35,453</b>	<b>38,996</b>	<b>74,449</b>

5	207+000 to 210+000	<i>101,894</i>	<i>48,323</i>	<i>150,217</i>
6	210+000 to 213+000	<i>165,839</i>	<i>55,525</i>	<i>221,364</i>
7	213+000 to 216+000	<i>147,423</i>	<i>55,556</i>	<i>202,979</i>
8	216+000 to 219+053	<i>133,425</i>	<i>56,051</i>	<i>189,476</i>
9	219+053 to 221+940	<i>70,473</i>	<i>22,243</i>	<i>92,716</i>
10	228+000 to 231+000	<i>8,692</i>	<i>8,540</i>	<i>17,232</i>
11	231+000 to 234+000	<i>8,223</i>	<i>9,028</i>	<i>17,251</i>
12	234+000 to 238+000	<i>10,267</i>	<i>13,308</i>	<i>23,575</i>
13	247+339 to 250+440	<i>39,792</i>	<i>11,907</i>	<i>51,699</i>
<b>TOTAL</b>		<b><i>782,815</i></b>	<b><i>384,499</i></b>	<b><i>1,167,314</i></b>

### 3.5 LIMIT OF DREDGING

#### 3.5.1 General

The areas to be dredged are the contract limits as indicated on the drawings, as specified in the Special Clause entitled: FINAL EXAMINATION AND ACCEPTANCE, and as defined by dredging prism indicated in the Paragraphs entitled: OVERDEPTH AND SIDE SLOPES and MEASUREMENT AND PAYMENT.

#### 3.5.2 Quantity Acceptance

The Contractor is responsible for completing all dredging requirements for any one acceptance section prior to acceptance of the work by the Government. In any portion of an acceptance section, when the before dredging survey indicates dredging is required, the Contractor is responsible for removing any material found to be remaining above the required depth by the after dredging survey, unless such dredging is waived by the Contracting Officer. Material removed as a result of redredging within the dredging prism, will be paid for at the contract unit price and as determined by the quantity calculation resulting from the before dredging survey. In any portion of an acceptance section, when the after dredging survey indicates dredging is required that was not indicated by the before dredging survey, the Contractor shall be responsible for removing such material to the required depth, unless waived by the Contracting Officer. The Contractor will be paid for such work at the contract unit price and an additional quantity calculation will be made based on the after dredging survey, provided that the material is not determined by the Contracting Officer to be misplaced material.

### 3.6 CONTRACTOR QUALITY CONTROL

The Contractor shall prepare and maintain Daily Report of Operations forms and the scow discharge reports, and shall furnish signed copies thereof with the Daily Quality Control records required in Section 01400 CONTRACTOR QUALITY CONTROL to the Contracting Officer. Copies of the Daily Report of Operations forms to be used are attached at the end of this section. Further instructions on the preparation and submittal of the forms will be provided at the Pre-Dredging Coordination Meeting. These reports shall be faxed daily to the Philadelphia District Office.

### 3.7 MEASUREMENT AND PAYMENT

#### 3.7.1 Mobilization and Demobilization

All costs connected with the mobilization and demobilization of all of the

Contractor's dredging plant and equipment will be paid for at the contract lump sum price for this item. 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.

In the event the Contracting Officer considers that the amount in this item (60%) 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 produce cost data to justify this portion of the bid. Failure to justify such price to the satisfaction of the Contracting Officer, will result in payment of actual mobilization costs, as determined by the Contracting Officer at the completion of mobilization, and payment of the remainder of this item in the final payment under this contract. The determination of the Contracting Officer is not subject to appeal.

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

a. Mobilization shall include all costs for operations accomplished prior to commencement of actual dredging operations; i.e., transfer of dredge, attendant plant, and equipment to site; preparation of disposal area; and other incidentals in advance of the actual dredging operations.

b. Demobilization shall include general preparation for transfer of plant to its home or standby base, cleanup of disposal area, and transfer of plant to its home or standby base.

### 3.7.2 Dredging

The total amount of material removed and to be paid for under the contract, will be measured by the cubic yard in place. Measurement of the number of cubic yards in place will be made by computing the volume between the bottom surface shown by soundings of the last survey made before dredging and the bottom surface shown by the soundings of surveys made as soon as practicable after the work specified in each acceptance section has been completed. The volume for measurement will include the material within the limits described in the Paragraph entitled: "OVERDEPTH AND SIDE SLOPES", less any deductions that may be required for misplaced material described in the Paragraph entitled: "DISPOSAL OF EXCAVATED MATERIAL", of this section. The volume of material removed will be generated by using either the Average End Area Method or by the TIN (Triangulated Irregular Network) computation, as outlined in the Hydrographic Surveying Manual EM 1110-2-1003, dated 1 January 2002. All depths obtained from single beam surveys will be utilized for volume computation purposes. If multi-beam survey methodology is used, a 5-foot by 5-foot matrix will be generated from the multi-beam data collected to perform the TIN computation. All survey data used for volume computations shall be available to the Contractor upon request. Payment for dredging will be made at the contract unit price for Bid Item No. 2, "Removal & Satisfactory Disposal of Material" as listed in the Bidding Schedule.

#### 3.7.2.1 Surveys for Acceptance

The Contractor shall notify the Government of his need for acceptance surveys at least three days in advance of the date for each survey (Saturdays, Sundays and holidays are excluded), and shall confirm his need

by telephone between 0730 and 0800 hours on the day of each survey by calling the Technical Support Branch, O & M Contracts Section at (Area Code 215) 656-6750. The time for any redredging to remove shoals and for second and subsequent surveys in any acceptance section is the responsibility of the Contractor, and must be accomplished within the completion period established for the contract. The Contractor may accompany the survey party to determine whether he at his own election will perform redredging. The Contracting Officer will notify the Contractor if any redredging is required.

#### 3.7.2.2 Existing Conditions

The drawings as listed under the Special Clause entitled: CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS are believed to accurately represent conditions existing at the time indicated but will be updated as required by soundings taken, by the Government, before dredging. Determination of quantities removed and the deductions made therefrom to determine quantities by place measurement to be paid in the area specified, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

#### 3.7.2.3 Hydrographic Survey Equipment

Hydrographic surveys will be conducted to meet USACE Performance Standards as defined in the Hydrographic Surveying Manual EM-1110-2-1003, dated 1 January 2002. Surveys will be performed by single transducer sounding techniques, multi-beam sweep type surveys or both. Bottom soundings will be obtained by the single beam fathometer operating at a frequency ranging from 190 to 210 Khz. When utilizing multi-beam technology, the operating frequency will range from 180 to 250 Khz. All fathometers will be calibrated following procedures outlined in the aforementioned EM.

#### 3.7.2.4 Partial Payments

Monthly partial payments will be based on acceptance sections completed as determined by soundings or sweepings taken behind the dredge by the Government survey party.

--End of Section--