



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090

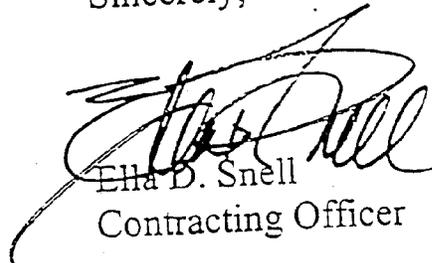
Contracts Branch
Contracting Division

SUBJECT: Central Contractor Registration

TO ALL PROSPECTIVE CONTRACTORS:

Please be advised that it is now required to register with the CCR (Central Contractor Registration) in order to perform work for the Federal Government. For additional information, please refer to the instruction sheet on the back of this letter, which includes the appropriate websites and telephone numbers.

Sincerely,



Ella D. Snell
Contracting Officer

CENTRAL CONTRACTOR REGISTRATION

[HTTP://WWW.ACQ.OSD.MIL/EC](http://www.acq.osd.mil/ec)

1(800) 334-3414

The Central Contractor Registry (CCR) is the Government's new national storing house of commercial and financial information on current and would-be contractors.

CCR eliminates the requirement for current and future contractors to submit Standard Form 129 and provides a single location for registering to conduct business with the Federal Government. Access to the register is available via the World Wide Web. A registration workbook is available for downloading from this site. It is highly recommended you review it prior to processing CCR to ensure all required information is available. Contractors are required to have a DUNS (Data Universal Numbering System) assigned by Dunn & Bradstreet at no charge (call 1-800-333-0505).

The initial Web Site application capability is for the initial contractor registration only. The ability to change, update or cancel a registration and query contractor information via the Web is currently in effect. After submitting a registration, contractors may use the Web application to inquire as to the status of their registration. Typically, a registration will be activated within 48 hours after receiving a complete and accurate application via the Internet. To register via the Internet, go to <http://ccr.edi.disa.mil>. Registration of an applicant through fax or mail may take up to 30 days. The mailing addresses are as follows: For firms with Legal business names beginning with the letters A-K or a number use CCR Registration Assistance Center, 2000 South Loop 256, Suite 11, Palestine, Texas 75801, FAX NO: (903) 729-7988. For firms with Legal business names beginning with the letters L-Z or a number use CCR Registration Assistance Center, 1450 Scalp Avenue, Johnstown, PA. 15904 FAX NO: (814) 262-2326. For those Contractor's who chose to register by mail, a paper registration form can be used and sent or faxed to the appropriate above address who will also furnish the form. Once successfully registered in CCR, a notice will be sent via email, fax, or regular post with information that a Trading Partner Identification Number (TPIN) will soon follow. For CCR implementation and contract questions please contact Robert Cooper at (703) 681-7573.

Anyone may access CCR via the Web to inquire whether vendor is registered at the following site: <http://ccr.edi.disa.mil>.

Information or assistance is available from your local Electronic Commerce Resources Center or Electronic Commerce Information Center at 1-800-334-3414 (8am-8pm), Monday-Friday, except Federal Holidays.

Additionally, your local Procurement Technical Assistance Center (PTAC) employs highly skilled professionals to help businesses like ours earn Federal and State Government contracts; assist with your CCR enrollment. The PTAC can provide Government specifications, daily listings of bid opportunities, bid history and contract award results, training and assistance with Electronic Data Exchange (EDI).

To find the office nearest you, the national PTAC directory can be accessed at Website <http://www.fedmarket.com/tecassis.html>.



**US Army Corps
of Engineers
New York District**

ARTHUR KILL CHANNEL NAVIGATION IMPROVEMENT PROJECT

CONTRACT 1 (SECTIONS A and B)

NEW YORK AND NEW JERSEY

Specifications

IFB NO. DACW51-03-B-0001

(UNRESTRICTED)

US ARMY ENGINEER DISTRICT, NEW YORK

INVITATION FOR BID NO. DACW51-03-B-0001

CHECK LIST FOR BIDDERS

ATTACHED IS IFB NO. DACW51-03-B-0001
Arthur Kill Channel, Navigation Improvement Project, Contract 1
New York and New Jersey

ALL INFORMATION REQUIRED BY THE TERMS OF THIS SOLICITATION MUST BE FURNISHED. MISTAKES OR OMISSIONS MAY RENDER YOUR BID INELIGIBLE FOR AWARD. IMPORTANT ITEMS FOR YOU TO CHECK ARE INCLUDED IN BUT NOT LIMITED TO THOSE LISTED BELOW. THIS INFORMATION IS FURNISHED ONLY TO ASSIST YOU IN SUBMITTING A PROPER BID.

- HAVE YOU ACKNOWLEDGED ALL AMENDMENTS?
- HAVE YOU COMPLETED THE "REPRESENTATIONS AND CERTIFICATIONS" (SECTION 00600) PORTION OF THE SOLICITATION?
- IS YOUR DUNS NUMBER LISTED ON THE STANDARD FORM 1442?
- IS YOUR BID PROPERLY SIGNED?
- A BID BOND IS REQUIRED. HAS YOUR SURETY PROVIDED YOU WITH A BID BOND ON STANDARD FORM 24 OR A SIMILAR FORM CONTAINING THE SAME LANGUAGE AS A STANDARD FORM 24?
- IS YOUR BID GUARANTEE IN THE PROPER AMOUNT?
- IS YOUR BID GUARANTEE PROPERLY SIGNED BY BOTH THE BIDDER AND SURETY AND ARE ALL REQUIRED SEALS AFFIXED?
- IS THE NAME IN WHICH YOU SUBMITTED THE BID THE SAME ON YOUR BID AS ON THE BID BOND?
- IS YOUR BID BOND INCLUDED WITH YOUR BID? (A LATE BID GUARANTEE IS TREATED THE SAME AS A LATE BID)
- HAVE YOU ENSURED THAT YOU HAVE NOT RESTRICTED YOUR BID BY ALTERING THE PROVISIONS OF THE SOLICITATION?

- WHEN REQUIRED, HAVE YOU ENTERED A UNIT PRICE FOR EACH BID ITEM? (THE SOLICITATION SPECIFICALLY STATES WHEN THIS IS NECESSARY.)

- ARE DECIMALS IN YOUR PRICES IN THE PROPER PLACE? ARE YOUR FIGURES LEGIBLE?

- IF YOU HAVE MADE ERASURES OR CORRECTIONS ON YOUR BID, ARE THEY INITIALED BY THE PERSON SIGNING THE BID?

- DOES THE ENVELOPE CONTAINING YOUR BID PROPERLY IDENTIFY THAT IT IS A SEALED BID AND DOES IT CONTAIN THE CORRECT SOLICITATION NUMBER AND BID OPENING TIME?

- WILL YOUR BID ARRIVE ON TIME? (SEE PARAGRAPH ENTITLED "LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS" IN THE INSTRUCTIONS, CONDITIONS, AND NOTICES TO BIDDERS, SECTION 00100 OF THE SOLICITATION.)

NOTE: THERE ARE INCREASED SECURITY MEASURES AT JACOB K. JAVITS FEDERAL BUILDING, 26 FEDERAL PLAZA THAT MAY AFFECT THE TIME IT TAKES TO ENTER THE BUILDING. BIDDERS IS RESPONSIBLE TO ENSURE THAT ITS BID IS SUBMITTED TIMELY.

IFB NO. DACW51-03-B-0001

NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278-0090

INVITATION FOR BIDS
FOR
Arthur Kill Channel Navigation Improvement Project, Contract 1
New York and New Jersey

1. Attached is INVITATION FOR BIDS (IFB) NO. DACW51-03-B-0001.
2. BIDS MUST BE SET FORTH full, accurate, and complete information as required by this Invitation for Bids, including attachments. The penalty for making false statements in bids is prescribed under Title 18, United States Code, Section 1001.
3. SUBMISSION OF BIDS: Complete details concerning proper submission of bids are contained in the INSTRUCTIONS, CONDITIONS, AND NOTICES TO BIDDERS (Section 00100).
4. Note the REQUIREMENT FOR AFFIRMATIVE ACTION of the EQUAL OPPORTUNITY clause as it applies to the contract resulting from this solicitation. (See paragraph NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY in Section 00100 of this IFB).
5. REPRESENTATIONS AND CERTIFICATIONS – SECTION 00600
Bidders and Offerors are required to complete the REPRESENTATIONS AND CERTIFICATIONS and submit them with their bids.

Within Section 00600, note in particular the CERTIFICATION OF NONSEGREGATED FACILITIES. Failure of a bidder or offeror to agree to the certification will render his bid or offer non-responsive to the terms of solicitations involving awards of contracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause (1984 APR).

6. THIS IS A CIVIL WORKS PROGRAM PROCUREMENT AND IS NOT FUNDED BY THE DEPARTMENT OF DEFENSE. BUY AMERICAN ACT – CONSTRUCTION MATERIALS (MAY 1993) IN ACCORDANCE WITH FAR 52.225-5 APPLIES.
7. THIS PROJECT IS NOT A SMALL BUSINESS SET-ASIDE.

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Contract 1
New York and New Jersey

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SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW51-03-B-0001	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 30-Oct-2002	PAGE OF PAGES 1 OF 27
	IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.			

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W16ROE-2262-6382	6. PROJECT NO.
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7. ISSUED BY USA ENGINEER DISTRICT, NEW YORK ATTN: CENAN-CT ROOM 1843 26 FEDERAL PLAZA (DACW51) NEW YORK NY 10278-0090 TEL: FAX: (212)264-3013	CODE DACW51	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE See Item 7 TEL: FAX:
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9. FOR INFORMATION CALL:	A. NAME INA J OHRWASHEL	B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> 212-264-0154
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SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*

ARTHUR KILL CHANNEL NAVIGATION IMPROVEMENT PROJECT
CONTRACT #1, NEW YORK AND NEW JERSEY

NAICS CODE IS 234990 - UNRESTRICTED

PROJECT MANAGER - JAMAL SULAYMAN - 212-264-9080
CONTRACT SPECIALIST- INA J. OHRWASHEL 212-264-0154

BID OPENING WILL BE HELD IN ROOM 1843

11. The Contractor shall begin performance within 5 calendar days and complete it within 330 calendar days after receiving
 award, notice to proceed. This performance period is mandatory, negotiable. *(See _____.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS?
(If "YES," indicate within how many calendar days after award in Item 12B.)

YES NO

12B. CALENDAR DAYS

10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 11:00 AM *(hour)*
local time 04 Dec 2002 *(date)*. If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee is, is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 120 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	BASE BID ITEMS FFP CONSTRUCT NAVIGATION CHANNEL PURCHASE REQUEST NUMBER: W16ROE-2262-6382				

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AA	MOBILIZATION AND DEMOBILIZATION FFP	1	Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AB	DEBRIS AND WOODEN DIKE REMOVAL AND DISPOSAL	600	Ton	-----	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AC	DREDGING, TRANSPORTATION, DELIVERY PROCESSING AND PLACEMENT OF NON-ROCK MATERIALS, UNSUITABLE FOR PLACEMENT AT THE HARS, EXCLUDES DEWATERING: ITEM 0001AD (PLACEMENT AT either the OENJ CHEROKKE BAYONNE LANDFILL REMEDICATION AND/OR AT THE CONTRACTOR'S PROPOSED DISPOSAL FACILITY (IES) Name of Site(s) _____ Name of POC(s) _____ Address of SIte (s) _____ _____ Phone(s) _____	566,000	CY	_____	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AD	DEWATERING IN ACCORDANCE WITH THE HOST STATE WQC AND DISPOSAL FACILITY TERMS AND CONDITIONS FOR UPLAND PLACEMENT	566,000	Cubic Yard	_____	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AE	SUBSURFACE DRILLING AND SAMPLING FFP	15	Each		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AF	FIELD OFFICE FFP	1	Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AG	DREDGING, TRANSPORTATION, DELIVERY AND PLACEMENT OF NON-ROCK MATERIALS SUITABLE FOR PLACEMENT UPLAND, EXCLUDES DEWATERING, ITEM 0001AH AND WITHOUT PROCESSING (PLACEMENT AT EITHER THE OENJ CHEROKEE BAYONNE LANDFILL REMEDIATION AND/OR AT THE CONTRACTOR'S PROPOSED DISPOSAL FACILITY (IES) AS ITEM 0001AC)	285,000	Cubic Yard	-----	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AH	DEWATERING IN ACCORDANCE WITH THE HOST STATE WQC AND DISPOSAL FACILITY TERMS AND CONDITIONS FOR UPLAND PLACEMENT	285,000	Cubic Yard	-----	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AJ	DREDGING, TRANSPORTATION, DELIVERY AND PLACEMENT OF NON-ROCK MATERIALS UNSUITABLE FOR PLACEMENT AT THE HARS (PLACEMENT AT THE NEWARK BAY CONFINED DISPOSAL FACILITY.	36,000	Cubic Yard	-----	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AK	DREDGING, TRANSPORTATION, DELIVERY AND PLACEMENT AT THE HARS PLACEMENT OF NON-ROCK (RED-BROWN) SILT AND CLAY) MATERIALS AS SHOWN IN THE DRAWINGS FOR PLACEMENT AT THE HARS	108,000	Cubic Yard	-----	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0001AL	THE DRILLING, BLASTING, DREDGING AND DISPOSAL OF ROCK MATERIALS AT THE ARTIFICIAL REEF	151,000	Cubic Yard	_____	

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AM	REMOVAL AND DISPOSAL OF CONCRETE NAVIGATION FOUNDATION	1	Lump Sum		

NET AMT

TOTAL BASE BID: _____

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002 OPTION	OPTIONAL ITEMS ADDITIONAL COST FOR OPTIONAL INSURANCE	1	Lump Sum		

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	EST QTY	UNIT	UNIT PRICE	AMOUNT
0003		260,000	Cubic Yard	_____	
OPTION	OPTIONAL ITEMS/DIFFERENCE IN COST				
	FFP				
	TO THE PROJECT FOR PLACEMENT AT THE HARS PLACEMENT OF NON-ROCK (sand and gravel) MATERIALS (as in Item 0001AG and 0001AH)				
	(NEGATIVE NUMBERS TO BE SHOWN IN PARENTHESIS)				
				NET AMT	
TOTAL BASE BID PLUS OPTIONAL ITEMS _____					

NOTES FOR PRICE SCHEDULE:

1. Bidders are required to bid on both the Base Bid Item and the Optional Items on the Price Schedule or their bid will be rejected.
2. The low bidder for the purpose of award will be the conforming responsible bidder offering the lowest amount for the Total Base Bid & Optional Items.
3. Any bid which is materially unbalanced as to the price for the Base Bid Item and Optional Items may be rejected. An unbalanced bid is one, which is based on price significantly less than the cost for some work and prices are significantly overstated for other work.
4. Bidders are reminded that they must bid on the issued plans and specifications as amended. Any deviations, conditions or attachments made by the bidders thereto may render the bid non-responsive and be cause for its rejection.
5. The Optional Items, if awarded, will be awarded within 180 days of the Notice to Proceed date. The Government is under no obligation to award the Optional Items.
6. The Newark Bay Confined Disposal Facility may not be used unless directed by the Contracting Officer or the Contracting Officer's Representative.
7. In Line Item 0001AC and Line Item 0001AG a bidder may bid on using either OENJ and/or a site(s) of their choice.
8. Should bidders choose to supply their own site in 0001AC and Line Item 0001AG, the apparent low bidder shall submit the documents specified Section 00800: Special Contract Requirements, Alternate Disposal Site Compliance. If the apparent low bidder does not submit the information required to be submitted within the times specified the Contractor will be considered non-responsible and its bid rejected.

9. Should bidders choose to supply their own site(s) in 0001AC and 0001AG, bidders will write on the blank lines provided on the Price Schedule Line Item 0001AC the name(s) of the site(s), POC(s), address(s) and phone(s) of their site(s) included in that line item.

(End of 00010

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY REFERENCE

52.204-6	Data Universal Numbering System (DUNS) Number	JUN 1999
52.214-3	Amendments To Invitations For Bids	DEC 1989
52.214-4	False Statements In Bids	APR 1984
52.214-5	Submission Of Bids	MAR 1997
52.214-6	Explanation To Prospective Bidders	APR 1984
52.214-7	Late Submissions, Modifications, and Withdrawals of Bids	NOV 1999
52.214-12	Preparation Of Bids	APR 1984
52.214-18	Preparation of Bids-Construction	APR 1984
52.214-19	Contract Award-Sealed Bidding-Construction	AUG 1996
52.232-38	Submission of Electronic Funds Transfer Information with Offer	MAY 1999

CLAUSES INCORPORATED BY FULL TEXT

52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)--EFARS

(a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

- (1) Obviously misplaced decimal points will be corrected;
- (2) Discrepancy between unit price and extended price, the unit price will govern;
- (3) Apparent errors in extension of unit prices will be corrected;
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm fixed construction contract resulting from this solicitation.

(End of clause)

52.217-5 EVALUATION OF OPTIONS (JUL 1990)

(a) Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(b) The Government may reject an offer as nonresponsive if it is materially unbalanced as to prices for the basic requirement and the option quantities. An offer is unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

Chief, Contracting Division
U.S. Army Corps of Engineers
26 Federal Plaza
New York, New York 10278-0090

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>

<http://farsite.mil.af.mil>

<http://www.dtic.mil/dfars>

(End of provision)

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY FULL TEXT

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) - ALTERNATE I (APR 2002)

- (a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 234990
- (2) The small business size standard is 17.0 million dollars
- (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b) Representations. (1) The offeror represents as part of its offer that it () is, () is not a small business concern.
- (2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it () is, () is not a small disadvantaged business concern as defined in 13 CFR 124.1002.
- (3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.
- (4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a veteran-owned small business concern.
- (5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it () is, () is not a service-disabled veteran-owned small business concern.
- (6) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--
- (i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and
- (ii) It () is, () is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:_____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.
- (7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:
- ___ Black American.
- ___ Hispanic American.
- ___ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

_____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

_____ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

_____ Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

- (i) Be punished by imposition of fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

52.219-2 EQUAL LOW BIDS. (OCT 1995)

- (a) This provision applies to small business concerns only.
- (b) The bidder's status as a labor surplus area (LSA) concern may affect entitlement to award in case of tie bids. If the bidder wishes to be considered for this priority, the bidder must identify, in the following space, the LSA in which the costs to be incurred on account of manufacturing or production (by the bidder or the first-tier subcontractors) amount to more than 50 percent of the contract price.

(c) Failure to identify the labor surplus area as specified in paragraph (b) of this provision will preclude the bidder from receiving priority consideration. If the bidder is awarded a contract as a result of receiving priority consideration under this provision and would not have otherwise received award, the bidder shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

- (a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.
- (b) By signing this offer, the offeror certifies that--
 - (1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or
 - (2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

() (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

() (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

() (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

() (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

() (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(End of clause)

52.226-2 HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION REPRESENTATION (MAY 2001)

(a) Definitions. As used in this provision--

Historically black college or university means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense, the National Aeronautics and Space Administration, and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

Minority institution means an institution of higher education meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k, including a Hispanic-serving institution of higher education, as defined in Section 316(b)(1) of the Act (20 U.S.C. 1101a)).

(b) Representation. The offeror represents that it--

() is () is not a historically black college or university;

() is () is not a minority institution.

(End of provision)

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtedness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclose such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

___ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

___ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or

subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

END OF SECTION

00010-16

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1 Alt I	Definitions (Dec 2001) --Alternate I	MAY 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 1997
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-18	Variation in Estimated Quantity	APR 1984
52.214-26	Audit and Records--Sealed Bidding	OCT 1997
52.214-27	Price Reduction for Defective Cost or Pricing Data - Modifications - Sealed Bidding	OCT 1997
52.214-28	Subcontracting Cost Or Pricing Data--Modifications--Sealed Bidding	OCT 1997
52.214-29	Order Of Precedence--Sealed Bidding	JAN 1986
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-9 Alt I	Small Business Subcontracting Plan (Jan 2002) Alternate I	OCT 2001
52.219-14	Limitations On Subcontracting	DEC 1996
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-3	Convict Labor	AUG 1996
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	SEP 2000
52.222-6	Davis Bacon Act	FEB 1995
52.222-7	Withholding of Funds	FEB 1988
52.222-8	Payrolls and Basic Records	FEB 1988
52.222-9	Apprentices and Trainees	FEB 1988
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	FEB 1988
52.222-12	Contract Termination-Debarment	FEB 1988
52.222-13	Compliance with Davis -Bacon and Related Act Regulations.	FEB 1988
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	FEB 1988
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-27	Affirmative Action Compliance Requirements for Construction	FEB 1999
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998

52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era and Other Eligible Veterans	DEC 2001
52.223-6	Drug Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	OCT 2000
52.225-11	Buy American Act--Construction Materials Under Trade Agreements	JUL 2002
52.225-13	Restrictions on Certain Foreign Purchases	JUL 2000
52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	JUN 2000
52.227-1	Authorization and Consent	JUL 1995
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.228-15	Performance and Payment Bonds--Construction	JUL 2000
52.229-3	Federal, State And Local Taxes	JAN 1991
52.229-5	Taxes--Contracts Performed In U S Possessions Or Puerto Rico	APR 1984
52.232-5	Payments under Fixed-Price Construction Contracts	MAY 1997
52.232-17	Interest	JUN 1996
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-27	Prompt Payment for Construction Contracts	FEB 2002
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	MAY 1999
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13	Accident Prevention	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-4	Changes	AUG 1987
52.246-12	Inspection of Construction	AUG 1996
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	MAR 1999
252.203-7002	Display Of DOD Hotline Poster	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Required Central Contractor Registration	NOV 2001

252.205-7000	Provisions Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.219-7003	Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (DOD Contracts)	APR 1996
252.225-7012	Preference For Certain Domestic Commodities	APR 2002
252.225-7031	Secondary Arab Boycott Of Israel	JUN 1992
252.236-7000	Modification Proposals -Price Breakdown	DEC 1991
252.236-7008	Contract Prices-Bidding Schedules	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.246-7000	Material Inspection And Receiving Report	DEC 1991
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 5 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than .330 calendar days. The time stated for completion shall include final cleanup of the premises.

*The Contracting Officer shall specify either a number of days after the date the contractor receives the notice to proceed, or a calendar date.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$4,000 per day for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)

(a) Definition. HUBZone small business concern, as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) Evaluation preference. (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except-

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer.

These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

___ Offeror elects to waive the evaluation preference.

(d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants.

(f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

(End of clause)

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
<p>Affirmative Action Requirements:</p> <p><u>Union County</u> Minority: 17.3%</p> <p><u>Hudson County</u> Minority: 12.8%</p> <p><u>Richmond County Minorities</u></p>	<p>Union County 17.3%</p> <p>Hudson County 12.8%</p> <p>Richmond County 6.9%</p>
<p>Electricians</p> <p>9.0% - 10.2%</p> <p>Carpenters</p> <p>27.6% - 32.0%</p> <p>Steamfitters</p> <p>12.2% - 13.5%</p> <p>Metal Lathers</p> <p>24.6% - 25.6%</p> <p>Painters</p> <p>22.8% - 26.0%</p>	

Operating Engineers	25.6% -
26.0%	
Plumbers	12.0% -
14.5%	
Iron Workers (Structural)	25.9% -
32.0%	
Elevator Constructors	5.5% - 6.5%
Bricklayers	13.4% -
15.5%	
Asbestos Workers	22.8% -
28.0%	
Roofers	6.3% -
7.5%	
Iron Workers (Ornamental)	22.4% - 23.0%
Cement Masons	23.0% -
27.0%	
Glaziers	16.0% -
20.0%	
Plasterers	15.8% -

18.0%	
Teamsters	
	22.0% -
22.5%	
Boilermakers	
	13.0% -
15.5%	
All Other	
	16.4% -
17.5%	

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;

- (3) Estimated dollar amount of the subcontract;
 - (4) Estimated starting and completion dates of the subcontract; and
 - (5) Geographical area in which the subcontract is to be performed.
- (e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is **Hudson County, Union County, Richmond County**
(End of provision)

52.228-1 BID GUARANTEE (SEP 1996)

- (a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.
- (b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-
- (c) The amount of the bid guarantee shall be 20% _____ percent of the bid price or \$3,000,000_____, whichever is less.-
- (d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-
- (e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.
- (End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>
<http://farsite/mil.af.mil>
<http://www.dtic.mil/dfars>

(End of clause)

252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)

(a) The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) 60 percent of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining 40 percent upon completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs (a) (1) and (2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of --

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization; and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

SECTION 00800**Special Contract Requirements****Index**

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SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

1.1 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK

a. The Contractor shall (i) commence work under this contract within five (5) calendar days after the date the Contractor receives the initial Notice to Proceed, (ii) prosecute the work diligently, and (iii) complete the entire dredging and disposal of non-rock material and the entire work associated with the drilling, blasting, dredging, and disposal of rock material within 330 calendar days from the date the Contractor receives the Notice to Proceed. The completion shall include final cleanup of premises including project site and field office area. The Contractor shall submit a written Accident Prevention Plan with the copy of Certificates of Inspection of floating plant and scows for review and approval within fifteen (15) calendar days after the award of contract.

b. Location: The site of work is located at the **Arthur Kill Channel, New York and New Jersey.**

c. The Contractor shall furnish all labor, materials, equipment, and services (except those furnished by the Government) for the following work: Dredging and disposal of non-rock material, and drilling, blasting and dredging and disposal of rock material to depths indicated on the drawings.

d. All work shall be in accordance with the drawings and specifications or instructions attached hereto and made a part thereof, or to be furnished hereafter by the Contracting Officer and subject, in every detail, to his supervision, direction, and instructions (DoD FAR Supplement 52.236-7014)

e. The following only pertains to the portion of an acceptance area where rock is encountered. All vessel traffic will be prohibited from entering the area where dredging, drilling, blasting and rock removal is being conducted. Enforcement of these traffic restrictions is the responsibility of the United States Coast Guard. The Contractor shall immediately report any violations to the Coast Guard and the Contracting Officer, noting the offending vessel's name and description, time of occurrence, destination (if known), and direction of travel. The Contractor will buoy or mark the entire perimeter of the area for the entire duration of his work therein; work may not begin in the area until the Contracting Officer and Coast Guard have inspected and approved the Contractor's marking system. Buoys or markings must be lit and visible at night. Buoys or markings shall be removed only after work within the marked area is completed and accepted.

f. Except as provided in paragraph e above, the entire channel will remain open to commercial and noncommercial vessel traffic. The Contractor's work in non-restricted areas is governed by Special Contract Requirement paragraph 1.5.

g. Magnitude of Construction Project: The estimated value of the proposed work is between \$50 million and \$100 million.

1.2 EQUAL OPPORTUNITY PREAWARD CLEARANCE OF SUBCONTRACTS (1984 APR)

Notwithstanding the clause of this contract entitled "Subcontracts", the Contractor shall not enter into a first-tier subcontract for an estimated or actual amount of \$1 million or more without obtaining in writing from the Contracting Officer a clearance that the proposed subcontractor is in compliance with the equal opportunity requirements and therefore is eligible for award. (FAR 52.222-28)

1.3 CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS (52.236-7001)

See contract clause entitled CONTRACTOR DRAWINGS, MAPS AND SPECIFICATIONS in Section 00700 CONTRACT CLAUSES. For a listing of Contract Drawings refer to the "General Plan and Index to Drawings" on drawing CC-AK-101.

1.4 RECORD DRAWINGS

a. General: The Contractor will maintain up to date as-built drawings during the construction period and will submit final record drawings at the completion of contract areas. The Government will provide to the Contractor the CAD (Computer-Aided Drafting) files consisting of compact (computer) disks or magnetic media of the drawing files in the appropriate CAD format (e.g. "Microstation", "Autocad", etc.) for the project. The Contractor is required to make prints or mylars from the CAD files and continuously maintain the drawings to show current as-built conditions for the duration of the construction. Except for updates as indicated below, the Contractor may maintain as-built drawings by marking up drawings by hand or by CAD methods. Scanned drawings will not be acceptable. If the Government cannot provide CAD files for the project drawings, mylar(reproducible) drawings will be provided. The Contractor will then be required to comply with all requirements indicated herein by the use of hand drafting.

b. Progress As-built Prints: During construction, the Contractor is responsible for maintaining up to date set of paper prints to show as-built construction conditions. These as-built prints shall be kept current and available on the job site at all times. All changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accordingly and neatly recorded as they occur by means of details and notes. The as-built prints will be jointly inspected for accuracy and completeness by the Contracting Officer's representative and a responsible representative of the Contractor prior to submission of each monthly pay estimate. The prints shall show the following information, but not limited thereto:

(1) The location and description of any bridges, utility lines, or any other structures within the construction area. The location includes dimensions to permanent features.

(2) The location and dimensions of any changes with the channels.

(3) Correct grade or alignment of channels, structures or utilities if any changes were made from the contract plans.

(4) Correct elevations if changes were made in channel depths

(5) All changes, which result from contract modifications.

(6) Where contract drawings or specifications allow options, only the option selected for construction shall be shown on the as-built prints.

(7) All amendments to the contract drawings issued during the solicitation period shall be posted on the as-built drawings.

c. Protection of Records: The Contractor shall be responsible for the protection and safety of mylars and CAD record until returned to the Contracting Officer. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at his expense.

d. 50% As-Built Update: At the 50% point in construction of this project (as determined by progresses payments) the Contractor will update the CAD files of the project drawings in the appropriate CAD program to show as-built conditions as above, and submit an updated computer disk and one set of prints to the Contracting Officer for approval. If the mylars only are provided to the Contractor, they shall be updated at this stage using hand-drafting as specified herein, and the Contractor shall submit one set of prints to the Contracting Officer for approval. Any required corrections will be made by the Contractor before payment will be approved for this item. The Contractor must use updated CAD record or mylar drawings to produce required prints.

e. Preliminary Record Drawing Submittal: At least thirty (30) calendar days before the anticipated date of final acceptance inspection the Contractor shall deliver two copies of progress prints showing final as-built conditions to the Contracting Officer for review and approval. These as-built prints shall correctly show all features of the projects as it has been constructed, adding such additional drawings as may be necessary. They shall be printed from the CAD files updated in the appropriate CAD program, or from updated mylars if mylars only were provided to the Contractor. Within ten (10) days, the Government will provide the Contractor one set of prints indicating required corrections to the preliminary submittal. The Contractor will correct and resubmit within five days. Any required subsequent review and resubmission periods will each be accomplished within 5 days. Upon Government approval of the preliminary submittal, the Contractor will prepare final record drawings.

f. Record Drawing Submission: In the appropriate CAD program each drawing shall be marked with the words "RECORD DRAWING AS-BUILT" followed by

the name of the Contractor in lettering at least 3/16" high. All revision to the original contract drawings will be dated in the revision block. All prints and mylars must be reproduced from the updated CAD files. If mylars only were provided to the Contractor, they shall be hand-lettered or stamped as indicated above, and revisions shown in revision block. A minimum of 5 calendar days before the anticipated date of final acceptance inspection of the project the Contractor shall deliver to the Contracting Officer.

- Three (3) CD's of CAD files of Record Drawings.
- One (1) set of Mylar Record Drawings.
- One (1) copy of prints of Record drawings.

Failure to make an acceptable submission of Record Drawings will delay the Final Acceptance Inspection for the project and shall be cause for withholding any payment due the Contractor under this contract.

g. Property: All paper prints, reproducible drawings and CAD files will become property of the Government upon final approval. Approval and acceptance of the final record drawings shall be accomplished before final payment is made to the Contractor.

h. Payment: No separate payment will be made for the as-built and record drawings or updating of CAD files required under this contract, and all costs in connection therewith shall be considered a subsidiary obligation of the Contractor.

1.5 PHYSICAL DATA (1984 APR) (FAR 52.236-4)

Information and data furnished or referred to below are furnished for the Contractor's information. However, it is expressly understood that the Government will not be responsible for any interpretation or conclusion drawn therefrom by the Contractor.

(1) The physical conditions indicated on the drawings and in the specifications are the results of site investigations by hydrographic surveys and individual inspections.

(2) The plane of reference mean low water (MLW) as established by National Geodetic Vertical Datum (1929 Adjustment), or NGVD29 will be used on the drawings and in these specifications.

(3) Weather Conditions: The site of the work is not exposed to direct offshore wind, ocean wave and swell action. However, the Contractor's ocean disposal operation may be affected by offshore conditions. It is the Contractor's responsibility to obtain and analyze available information concerning offshore conditions and its potential effect on his operations.

See paragraph 1.25 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER for adverse weather delays at the project site.

a. Fog: An examination of the records of the U.S. Weather Service at Newark International Airport, New Jersey, discloses an average of 31 days per year on which dense fog (visibility of 1/4 mile or less) occurs in the New York Harbor area. The maximum number of days in which dense fog

occurred in any recent year was 18 in 1982.

(4) Climatological data determined from records of the U.S. Weather Service Bureau at Newark Airport, N.J.:

Mean Annual Temperature: 54.1 degrees F
Mean Annual Precipitation: 43.0 inches

(5) Tides: The following is the tidal range near the project area:

Port Newark Terminal - mean range 5.1 feet
- mean range spring 6.1 feet

The Battery - mean range 4.6 feet
- mean range spring 5.5 feet

Irregular fluctuations due to wind and atmospheric pressure have resulted in tide stages at The Battery from 3.8 feet below MLW to 10.6 feet above MHW.

(6) Permit Structures: There are no known permit structures within the project area.

(7) Channel Traffic: Vessel traffic in the project waterway consists of seagoing bulk and general cargo freighters, tankers, container ships, auto carriers and miscellaneous small craft. Vessel traffic may cause delays to the work under these specifications.

(8) Other Work in the Area: There will be dredging contracts adjoining this area. It is the Government's intent, subject to funding, to award subsequent dredging contracts adjacent to the present contract area. The Contractor should expect some scheduling conflicts.

(9) Obstruction of Channel: The Government will not undertake to keep the channel free from vessels or other obstructions except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army in accordance with the provisions of Section 7 of the River and Harbor Act approved August 8, 1917. The Contractor will be required to conduct the work in such a manner as to obstruct navigation as little as possible, except as herein before specified, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such passage. Upon completion of the work the Contractor shall promptly remove his plant, including ranges, buoys, piles and other marks placed by him under the contract in navigable waters or on shore. The channel must be kept open to vessel traffic at all times except as permitted by the Contracting Officer. It should be noted that navigational safety takes precedence over dredging operations.

(10) Transportation Facilities: **NY State Route 440, Staten Island, New York and NY 278, Staten Island, New York and Elizabeth, New Jersey** serve the locality of the proposed work. All costs for the use of existing transportation facilities, and for maintenance, repair, removal

and restoration shall be borne by the Contractor.

(11) Winds and Waves: Wind and wave climate in the New York Bight area, based upon hourly data obtained from NOAA National Data Buoy Center (NDBC) observation at Station Ambrose Light (ALSN6) for the period 1990-1995 is provided below.

Month	Average Wind Speed (mph)	Maximum 1 hr avg Wind Speed (mph)	%Time Winds over 25 mph	Average Signif. Wave Ht. (ft.)	Maximum Signif. Wave Ht. (ft.)	%Time Waves Over 6 ft.	Average # Occur- rences over 6 ft
January	19.4	51.7	26.3	3.3	15.7	8.7	3.0
February	19.7	51.8	28.1	3.2	11.8	7.9	2.8
March	18.8	70.8	24.6	3.4	19.7	9.0	3.4
April	17.7	47.5	18.9	3.1	9.1	3.7	2.2
May	16.1	40.7	13.4	2.9	9.5	2.6	1.4
June	15.8	43.6	12.4	2.6	9.5	0.9	0.6
July	14.3	39.4	5.2	2.5	9.2	0.5	1.0
August	14.3	51.1	7.6	2.8	7.5	4.2	1.7
September	15.5	48.9	9.3	2.9	9.2	2.7	1.8
October	17.0	46.6	17.4	3.0	11.5	5.6	3.0
November	19.3	59.6	25.2	3.1	15.4	7.0	2.3
December	20.2	80.0	29.3	3.4	23.9	10.7	2.8
Annual	17.3	80.0	18.2	3.0	23.9	5.4	26

Weather conditions exceeding in severity the fog conditions stated above, wind speeds exceeding the percentage shown for % winds over 25 mph, or wave heights exceeding 6 feet in height for more than one hour, will be considered "Unusually Severe" if delays are caused thereby to operations for more than 50% of the day under this contract.

1.6 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE_(EFARS 52.2/9108(f))

a. Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data when the Government can determine both ownership and operating costs for each piece of equipment or equipment groups of similar serial and series from the Contractor's accounting records. When both ownership and operating costs cannot be determined from the Contractor's accounting records, equipment costs shall be based upon the applicable provisions of EP 1110-1-8*, "Construction Equipment Ownership and Operating Expense Schedule," Region 1. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect at the time the work was performed shall apply. (* This manual can be ordered from the Government Printing Office by

calling Tel. No. (202) 783-3238. There is a charge for the manual.)

b. Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36 substantiated by certified copies of paid invoices. Rates for equipment rented from an organization under common control, lease-purchase or sale-lease-back arrangements will be determined using the schedule except the rental costs leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees are allowable. Costs for major repairs and overhaul are unallowable.

c. When actual equipment cost are proposed and the total amount of the pricing action is over \$25,000, cost or pricing data shall be submitted on standard form 1411, "Contract Pricing Proposal Cover Sheet." By submitting cost or pricing data, the Contractor grants to the Contracting Officer or an authorized representative the right to examine those books, records, documents and other supporting data that will permit evaluation of the proposed equipment costs. After price agreement the contractor shall certify that the equipment costs or pricing data submitted are accurate, complete and current.

1.7 CONSTRUCTION PROJECT SIGNS

a. The Contractor shall construct five (5) signs; four for project identification, and one to show on-the-job safety performance. These signs will be placed at the Contracting Officer's direction within 15 calendar days after the Contractor receives the initial Notice to Proceed.

b. Exact placement location will be designated by the Contracting Officer.

c. Panels are fabricated using HDO (High Density Overlay) plywood with dimensional lumber uprights and bracing. The sign faces are non-reflective vinyl.

d. All legends are to be die-cut or computer-cut in the sizes and type-faces specified and applied to the white panel background following the graphic formats shown on the attached sheets. The Communications Red panel on the left side of the construction project sign with Corps signature (reverse version) is screen printed onto the white background.

e. Samples of the signs are included at the end of this section. The project names on the sample signs are only provided to illustrate format. The actual signs will include the name of this project. The precise wording shall be provided by the Contracting Officer's Representative.

f. No separate payment will be made for erecting and maintaining the signs and all costs in connection therewith will be considered the obligation of the Contractor. Upon completion of the project, the Contractor shall remove the signs from the project site.

1.8 SUBMISSION OF CLAIMS

The following shall be submitted to the Contracting Officer at the following address: U.S. Army Corps of Engineers, New York District, 26 Federal Plaza, New York, New York 10278-0090:

- a. claims referencing or mentioning the Contracting Disputes Act of 1978
- b. requests for a written decision by the Contracting Officer
- c. claims certified in accordance with the Contract Disputes Act of 1978

A copy of the requests shall be also be provided to the authorized Contracting Officer's Representative (COR) for action and no other Government representative is authorized to accept such requests. The Contractor shall also provide the Contracting Officer with a copy of any requests for additional time, money or interpretation of contract requirements which were provided to the Authorized Representative of the Contracting Officer and which have not been resolved after 90 days.

1.9 SCHEDULING AND DETERMINATION OF PROGRESS

Pursuant to the Contract Clause SCHEDULES FOR CONSTRUCTION CONTRACTS in Section 00700, the Contractor shall prepare and submit for approval a practicable project schedule. The type of schedule and detailed requirements as well as timing of this submittal shall be as specified in specification section "Project Schedule".

This schedule will be the medium through which the timeliness of the Contractor's construction effort is appraised. When changes are authorized that result in contract time extensions, the Contractor shall submit a modified schedule for approval by the Contracting Officer.

The terms of Contract Clause SCHEDULES FOR CONSTRUCTION CONTRACTS, with reference to overtime, extra shifts, etc., may be invoked when the Contractor fails to start or complete work features or portions of same by the time indicated by the milestone dates on the approved project schedule, or when it is apparent to the Contracting Officer from the Contractor's actual progress that these dates will not be met.

Neither on the project schedule as originally submitted nor on any updated periodic schedule which the Contractor is required to prepare and submit, shall the actual progress to be entered include or reflect any materials which may be on the site, but are not yet installed or incorporated in the work. For payment purposes only, an allowance will be made by the Contracting Officer of up to 100 percent of the invoiced cost of materials or equipment delivered to the site but not incorporated into the construction, pursuant to Contract Clause, PAYMENT UNDER FIXED-PRICE CONSTRUCTION CONTRACTS, in Section 00700. The making of such an allowance will be contingent upon a determination by the Contracting Officer that the Contractor's compliance with the quality control requirements of the contract is more than satisfactory.

1.10 INSPECTION (1965 APR OCE)

The inspectors, the Contracting Officer's Representative at the site of the work have certain direct and indirect authority to assure that the work is being performed in compliance with the plans and specifications, will direct the maintenance of the gauges, ranges, location marks and limit marks in proper order and position. The presence or absence of an inspector shall not relieve the Contractor of responsibility for the proper execution of the work in accordance with the specifications. The Contractor will be required:

(a) To furnish, at the request of the Contracting Officer or any inspector, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the work. However, the Contractor will not be required to furnish such facilities for the surveys, prescribed in the clause entitled "Final Examination and Acceptance."

(b) To furnish, at the request of the Contracting Officer or any inspector, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and to and from the disposal sites. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor.

1.11 NOTICE TO MARINERS

The Contractor shall, prior to commencement of work, notify the 1st Coast Guard District, Aids to Navigation Officer, of his proposed operations including location and duration of operations and request that the information be published in a "Notice to Mariners." This notification must be given at least three (3) weeks in advance so that it appears in the "Notice to Mariners" at least one week prior to the commencement of the dredging operation. The Contractor shall also coordinate all dredging and transportation activities with U.S. Coast Guard Activities New York, Vessel Traffic Service Branch at 718-354-4191 or facsimile 718-354-4096.

1.12 PROTECTION OF EXISTING STRUCTURES

All existing structures, piers, bulkheads, utility lines, ships, etc. shown on the drawings or the existence and location of which are made known to the Contractor prior to beginning of work shall be protected from damage. In the event of damage as a result of the Contractor's operations, the Contractor shall be responsible for the repair, restoration, or for all costs of damage resulting therefrom. If the Contractor elects to have alterations made to any existing structure, utility, or other improvements for his convenience, he shall make arrangements with the owner of the facility for such alterations and the arrangements made shall be approved by the Contracting Officer unless they are to be removed.

1.13 BRIDGE-TO-BRIDGE COMMUNICATION

In order that radio contact may be made with passing vessels, all major

vessels and plant, engaged in work under this contract shall be equipped with bridge-to-bridge radio telephone equipment. The radio telephone equipment shall operate on a single channel very high frequency (VHF), on a frequency of 156.65 MHZ, Channel 13 with low power output having a communication range of approximately ten (10) miles. The frequency has been approved by the Federal Communications Commission.

1.14 PERFORMANCE EVALUATION OF CONTRACTOR (1985 JAN HQ USACE)

a. As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluations may be prepared at any time during contract performance when determined to be in the best interest of the Government.

b. The format for the evaluation will be SF 1421, and the Contractor will be rated either outstanding, satisfactory, or unsatisfactory in the areas of Contractor Quality Control, Timely Performance, Effectiveness of Management, Compliance with Labor Standards, and Compliance with Safety Standards. The Contractor will be advised of any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation, and all Contractor comments will be made a part of the official record. Performance Evaluation Reports will be available to all DoD contracting offices for their future use in determining Contractor responsibility, in compliance with DFARS 36.201(c)(1).

1.15 FINAL EXAMINATION AND ACCEPTANCE (1965 APR OCE)

As soon as practicable after the completion of an entire acceptance area, a final examination of the work will be conducted by the Contracting Officer, at the cost and expense of the Government by acoustic sweep survey system. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor will be required to remove same. The Contractor, or his authorized representative, will be notified when soundings or sweepings are to be made, and will be permitted to accompany the survey party. The Government shall notify the Contractor of the findings of survey within ten (10) calendar days from the date the survey was performed by the Government. When the area is found to be in a satisfactory condition, it will be accepted. Should more than two sounding or sweeping operations by the Government over an area be necessary by reason of work for the removal of shoals disclosed at a prior sounding or sweeping, the cost of such third and any subsequent sounding or sweeping operations will be charged against the Contractor at the rate of \$8,200.00 per occurrence. **For purposes of this Contract, Area A,B,C,D,E,F,G,H,I, and J as defined on the drawings have been identified as acceptance areas.** Progress payment shall be arranged at the pre-construction conference. The Contractor shall perform pre-final hydrographic sweep surveys of an entire acceptance area to verify the area is satisfactorily completed prior to final examination by the Government. The pre-final surveys shall be performed using a multitrack or multibeam survey system to insure 100% coverage of the entire acceptance area. The proposed method for performing these surveys and all equipment and programs shall be submitted for approval. The Contractor's hydrographic surveys shall meet or exceed the survey standards listed in EC 1130-2-210, HYDROGRAPHIC SURVEYING, 1 October

1998 for Class I surveys.

1.16 FUEL USAGE

The Contractor shall furnish the Contracting Officer a report, to be received on or before the last day of the calendar month, listing the totals of fuels consumed by the dredging plant and support vessels. The report shall list quantities of different fuels separately. The report shall cover the period from the 25th of the preceding month to the 25th of the current month.

1.17 OIL TRANSFER OPERATIONS (NAP-1/81)

The Contractor shall assure that oil transfer operations to or from his plant comply with all Federal, state, and municipal laws, codes and regulations. Particular attention is invited to 33 CFR Subchapter 0, "Pollution." The Contractor shall incorporate in the accident prevention program, submitted in compliance with contract clause ACCIDENT PREVENTION in Section 00700, sufficient information to demonstrate that all fuel transfers will be made in compliance with 33 CFR 156 and any other applicable laws, codes and regulations.

1.18 CERF IMPLEMENTATION (83 JUN 1 OCE)(EFARS 52.2-9112)

NOT USED.

1.19 ENVIRONMENTAL LITIGATION (1974 NOV OCE)(ECI 7-671.10)

a. If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than those required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the "Suspension of Work" clause in Section 00700 of this contract. The period of such suspension, delay or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

b. The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

1.20 SIGNAL LIGHTS (FEB 1983)(DEAN-PRP Ind 12 Sep 83)

The Contractor shall display lights and conduct his operations in accordance with the General Regulations of the Coast Guard governing lights

and day signals to be displayed by towing vessels with tows on which no signals can be displayed. Vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as approved by the Commandant, U.S. Coast Guard with respect to vessels on the high seas (33 CFR 81 App. A-72 COLREGS. Part C), vessels in inland waters (33 CFR 93.18 - 93.31a), and vessels in western rivers (33 CFR 95.5.51 - 95.70), as applicable.

1.21 LABOR - ADDITIONAL REQUIREMENTS

Fringe benefits statement: The method of payment of applicable fringe benefits will be indicated on DD Form 879. Statement of Compliance, and attached to each weekly payroll.

1.22 CONTINUING CONTRACT (Alternate) (1995 MAR)(EFARS)

a. Funds are not available at the inception of this contract to cover the entire contract price. The sum of \$10,000,000 has been reserved for this contract and is available for payment to the Contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds, together with funds provided by the nonfederal project sponsor will be reserved for this contract. The liability of the United States for payments beyond the funds reserved for this contract is contingent on the reservation of additional funds.

b. Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not be considered a breach of this contract, and shall not entitle the Contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (e) and (h) below.

c. The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The Contracting Officer will promptly notify the Contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

d. 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 this 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.

e. No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. If and when sufficient additional funds are reserved, the Contractor shall be entitled to simple interest on any payment that the Contracting Officer determines was actually earned under the terms of this 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.

f. 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 a "Suspension of Work" or similar clause or in any other manner under this contract.

g. 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.

h. 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 at no cost to the Government, except that, to the extent that additional funds to make payment therefore are allocated to this contract, it may be treated as a termination for the convenience of the Government.

i. 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 this 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.

j. The term "Reservation" means monies that have been set aside and made available for payments under this contract.

1.23 VERIFICATION OF SMALL BUSINESS UTILIZATION

a. This clause is applicable to small business concerns whose contracts exceed \$1,000,000.

b. In accordance with the clause at FAR 52.219-8, entitled UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS, in effect on the date of this contract, the Contracting Officer may survey the extent of small and small disadvantaged business utilization under this contract. The Contractor may be required to report to the Contracting Officer statistical data on the number and dollar amounts of subcontracting awards with small businesses and small disadvantaged businesses.

c. As appropriate, the Contracting Officer may require one or more follow-up reports to the initial report.

d. The Contractor agrees to insert this clause in any subcontract that may exceed \$1,000,000, including this subparagraph d.

1.24 PROCEDURES FOR SUBMISSION AND PAYMENT OF ALL CONTRACT PAYMENTS

In addition to the requirements contained in the Contract Clause entitled "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS" in Section 00700 and to implement the requirements of the Prompt Payment Act Amendments of 1988, P.L. 100-496, the following shall apply to all payments made under this contract:

a. At the time of submission of the progress chart, the Contractor shall submit for approval by the Contracting Officer or his authorized representative a breakdown of the contract work which shall be to the degree of detail required by the Contracting Officer or his representative to effect reasonable progress payments. The schedule of values (or prices) shall consist of a detail breakdown of the contract price, giving quantities breakdown for each of the various kinds of work (rock and non-rock materials), unit prices, and extended prices therefor. The required schedule shall be based on the actual breakdown of the bid price. The Contracting Officer or his representative shall review this breakdown within 30 calendar days after receipt and either advise the Contractor that it is approved or disapproved, and if disapproved the reasons for disapproval. Only after the breakdown is approved shall any payment invoice be accepted from the Contractor and any payment made to him. The Contracting Officer can determine it is in the best interest of the Government to make payment without an approved breakdown, however, in no case shall more than 10% of the contract amount be paid unless the breakdown is approved.

b. The Contractor shall submit his request for payment by submission of a proper invoice to the office or person(s) designated in subparagraph (c). For purposes of payment a "proper invoice" is defined as the follows:

1. An estimate of the work completed in accordance with the approved breakdown indicating the percentage of work of each item and associated costs.

2. A properly completed Eng Form 93 and 93a (where required).

3. All contractual submissions indicated elsewhere in this contract to be submitted with payment, such as updated progress schedule, updated submittal registers, etc.

4. The following certification executed by a responsible official of the organization authorized to bind the firm. A "responsible official" would be either a corporate officer, partner, or owner, in the case of a sole proprietorship.

I hereby certify, to the best of my knowledge and belief, that -

(1) The amounts requested are only for performance in accordance with the specifications, terms and conditions of the contract;

(2) Payments to subcontractors and suppliers have been made from previous payments received under the contract and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract requirements and the requirements of chapter 39 of Title 31, United States Code; and

(3) This request for progress payments does not include any amounts which the prime contract intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontractor.

(4) All required prime and subcontractor payrolls have been submitted.

(Name)

(Title)

(Date)

c. The Government shall designate the office or person(s) who shall first receive the invoice submission and the Contractor shall be so notified at the pre-dredging conference. In addition to the designated Project Engineer, the Contractor shall at the same time submit one copy of the detailed breakdown and the Eng Form 93 and 93a Form to the Area Engineer.

d. The Government representative shall return any request for payment which is deemed defective within 7 days of receipt and shall specify the defects. If the defect concerns a disagreement as to the amount of work performed and/or the amount of the payment being submitted, the Government and the Contractor's representative should meet to resolve the differences and reach agreement. Upon agreement, the Contractor shall submit a new breakdown and Eng Form 93 (and 93a) and any other submissions requiring correction. These will be incorporated with the previous submittal and will then constitute a proper invoice.

e. If agreement cannot be reached, the Government shall determine the proper amount per Contract Clause, PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS and process the payment accordingly. In this event, a "proper invoice" for Prompt Payment Act purposes will not have been submitted to the Government.

f. The Government shall pay the Contractor in accordance with the following time frames:

1. Progress Payments - From the date a "proper invoice" is received, in accordance with subparagraphs b and d of this clause, the

Government will issue a check within 14 calendar days.

2. Reduction in Retainage Payment. If during the course of the contract, a reduction in retainage payment is required, the Government shall issue a check within 14 calendar days after the approval of the release to the Contractor by the Contracting Officer or his authorized representative.

3. Final Payment. A final payment request shall not be considered valid until the Contractor has fulfilled all contract requirements including all administrative items, payrolls, warranties, etc. and has submitted a release of claims. When the Contractor has fulfilled all contract requirements and a "proper invoice" has been submitted, the Government shall issue a check within 14 days from the date of acceptance of the project by the Contracting Officer.

g. The Contractor is required to perform monthly progress payment surveys as permitted by the Contracting Officer. Surveys shall be in accordance with EC 1130-2-210, Hydrographic Surveying, 1 Oct 1998, for Class I Surveys. The method(s) to measure material dredged shall be established at the pre-construction conference or some other time as directed by the Contracting Officer's Representative. Survey quantity calculations shall be based upon the average end area method or triangulated irregular network systems (TINS) method. Progress payments on estimates of work accomplished for **Bid Item Nos. 0001AC, 0001AG, 0001AJ, 0001AK, 0001AL and 0003** shall be 90 percent of the line item amount until the area is surveyed and accepted by the Government. The Contractor's proposed method for performing progress surveys and all equipment and computer programs shall be submitted for approval. Progress surveys shall be performed with digital depth sounders, heave compensators and appropriate survey data processing programs. Bar checks and calibrations shall be performed at the beginning and conclusion of all progress payment surveys.

1.25 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

1. This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the contract clause entitled "DEFAULT: (FIXED PRICE CONSTRUCTION)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

a. The weather experienced at the contract site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

b. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

2. The following schedule of monthly anticipated adverse weather

delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

Station Location: Newark, N.J.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(7)	(6)	(7)	(5)	(6)	(5)	(6)	(5)	(5)	(4)	(4)	(6)

3. Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph 2, above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled "DEFAULT (FIXED PRICE CONSTRUCTION)". (ER 415-1-15) (31 Oct 89)

1.26 SAFETY AND HEALTH REQUIREMENTS MANUAL

The Contractor is advised that the latest edition of the U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, as referenced in the Accident Prevention Clause of the CONTRACT CLAUSES in Section 00700, is dated 3 September 1996. The Contractor shall review the latest changes and all interim changes (changes made between publication of new editions) to the U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, will be posted on the Headquarters Website. The date that it is posted will become the official effective date of the change. Contractors shall comply with the latest version of EM 385-1-1 that is in effect on the date of the solicitation. The website location where these changes can be found is under the button entitled, "Changes to EM", located at: http://www.hq.usace.army.mil/soh/hqusace_soh.htm. Before commencing work, the Contractor shall (1) submit a written Accident Prevention Plan which meets the minimum requirements outlined in EM 385-1-1, Appendix A; and (2) meet with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program. No work shall commence until the Safety and Health Officer and the Accident Plan is accepted by the Contracting Officer.

a. The Contractor shall submit a written Accident prevention Plan which meets the minimum requirements outlined in EM 385-1-1, Appendix A. All

certificates, inspection reports and licenses identified in Section 19, entitled "Floating Plant and Marine Activities", paragraph 19.A.01 and 19.A.02 of EM 385-1-1 shall be submitted with the Accident Prevention Plan. If there is conflict between the Government regulations and the Seagoing Barge Act, the most stringent requirement governs. When new floating plant is brought onto the job site, said certificates and inspection reports, determining that the floating plant is in safe operating condition, shall be submitted to the Contracting Officer before it is placed in service.

b. Notwithstanding what is shown on the specifications, the Contractor shall use the following Interim Policy Guidance below:

1) The following interim policy guidance is provided for EM 385-1-1, paragraphs 01.C.04 a & b currently written as:

"Operators shall not be permitted to operate beyond the following limits:

(a) Operators of hoisting equipment, mobile construction equipment and draglines shall not be permitted to exceed 10 hours of **duty time** in any 24-hour period, including time worked at another occupation, without an interval of eight consecutive hours of rest.

(b) Operators of other equipment and motor vehicles, while **on duty**, shall not operate equipment or vehicles for a **continuous period** of more than 10 hours in any 24-hour period without at least eight consecutive hours of **rest**; nor shall any employees, while **on duty**, operate any vehicles after being in a **duty status** for more than 12 hours during any 24-hour period without at least eight consecutive hours of rest. **Variation in these requirements requires documented approval of the designated authority and notification of the Command's Safety and Occupational Health Office.**"

2) Definitions for terms highlighted in bold and underlined type above are defined as:

Duty Time, On Duty & Duty Status: those hours for which the employee is being monetarily compensated.

Continuous Period: those hours for which employee works uninterrupted, except for meal periods and breaks, at one or more specific tasks during time.

Rest (period): time period free of all restraint or duty for and free of all responsibility for work or duty.

Designated Authority: the senior person in charge or his/her appointed representative for the operation being considered. (Resident Engineer/Project Manager/Operations manager, etc.)

Command Safety and Occupational Health Office: the District Safety and Occupational Health Office having jurisdiction over the work being conducted.

Activity Hazard Analysis: a tool used to document a process by which the steps (procedures) required to accomplish a work activity are outlined, the actual or potential hazards of each step are identified, and measures for the

elimination or control of those hazards are developed.

Qualified Person: one who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve or resolve problems related to the subject matter, the work, or the project.

3) The designated authority may issue a variance to paragraphs 01.C.04 a or b. The variance must be documented and supported by an Activity Hazard Analysis and the local Command Safety and Occupational Health Office notified.

4) In addition to currently required reporting criteria, a qualified person or persons(s) shall conduct special emphasis investigations on all Class A,B,& C, marine accidents to include property damage exceeding \$2,000 damage. The investigations will specifically focus on on work practices, schedules, time of day, hours on duty, rest periods, employees work schedule per pay period and other pertinent facts. The results of the investigation will be documented and sent the HQUSACE Safety and Occupational Health Office for collection and evaluation.

1.27 PLANT

The Contractor agrees to keep on the job sufficient plant to meet the requirements of the work. The plant shall be in satisfactory operating condition, capable of safely and efficiently performing the work as set forth in the specifications and be subject to the inspection of the Contracting Officer at all times. No reduction in the capacity of the plant employed on the work shall be made except by written permission of the Contracting Officer. The measure of the capacity of the plant shall be its actual performance on the work to which these specifications apply.

1.28 STATE/LOCAL INCOME TAXES

The Contractor agrees that if during the performance of this contract it is relieved of its obligation to pay state and/or local income taxes on the income from this contract, an equitable adjustment will be made. The Contractor agrees to notify the Government within thirty (30) days of its relief from such taxes.

1.29 THE SEAGOING BARGE ACT (Revised 46 USC 2101(3),(32); 3301(4),(6); 3302(c)(2); 3305(a),(a)(1),(3),(4); 3307(1),(3); 3309(a); 3311)

The Seagoing Barge Act applies to this project. In the event the Contractor contemplates using plant that requires U.S. Coast Guard certification to comply with this Act, the Contractor shall submit a copy of said certificate(s) with his Accident Prevention Plan to the Contracting Officer for approval within fifteen (15) calendar days after the award of contract. No work shall commence until the Contracting Officer reviews and approves the Accident Prevention Plan. If there is conflict between the US Army Corps of Engineers Manual and the Seagoing Barge Act, the most stringent requirement governs.

1.30 TIME EXTENSIONS: (APR 1984)

Notwithstanding any other provisions of this contract, it is mutually understood that the time extensions for changes in the work will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements so delayed and that the remaining contract completion dates for all other portions of the work will not be altered and may further provide for an equitable readjustment of liquidated damages under the new completion schedule. (FAR 52.212-6)

1.31 SUPERINTENDENCE OF SUBCONTRACTORS: (JAN 1965)

a. The Contractor shall be required to furnish the following, in addition to the superintendence required by the Contract Clauses titled, "SUPERINTENDENCE BY THE CONTRACTOR".

(1) If more than 50% and less than 70% of the value of the contract work is subcontracted, one superintendent shall be provided at the site and on the Contractor's payroll to be responsible for coordinating, directing, inspecting and expediting the subcontract work.

(2) If 70% or more of the value of the work is subcontracted, the Contractor shall be required to furnish two such superintendents to be responsible for coordinating, directing, inspecting and expediting the subcontract work.

b. If the Contracting Officer, at any time after 50% of the subcontracted work has been completed, finds that satisfactory progress is being made, he may waive all or part of the above requirement for additional superintendence subject to the right of the Contracting Officer to reinstate such requirement if at any time during the progress of the remaining work he finds that satisfactory progress is not being made. (DoD FAR Supplement 52.236-7008)

1.32 INSURANCE PROCURED BY CONTRACTOR

1.32 A

a. At the Government's option, to be exercised in writing no later than 120 days after contract Notice to Proceed(NTP), the Contractor shall procure and maintain during the entire period of its performance under this contract the following insurance policies:

(1) Commercial General Liability Insurance in limits of not less than Five Million Dollars (\$5,000,000) combined single limit per occurrence for bodily injury, death, personal injury and property damage, including but not limited to coverage for premises-operations, products-completed operations, independent contractors, broad form property damage, property damage arising out of explosion, collapse or underground property damage hazards with a contractual liability endorsements covering the risks assumed and indemnification given by the Port Authority under the Project Cooperation Agreement for the Arthur Kill Channel,Howland Hook Marine Terminal, New York and New Jersey Project. A copy of such Agreement shall

be furnished to the insurance underwriter.

(2) Automobile Liability Insurance covering owned, non-owned, and hired auto with a limit of not less than \$3,000,000 per accident.

(3) Maritime Protection and Indemnity Insurance in limits of not less than Five Million Dollars (\$5,000,000) combined single limit per occurrence for bodily injury, death, and property damage including coverage for Masters and members of crews.

(4) Environmental Liability Insurance in limits of not less than Ten Million Dollars (\$10,000,000) combined single limit per occurrence for bodily injury, death, and property damage indemnification given by hunder this agreement.

b. The policies described in 1, 2, 3 and 4 above shall be endorsed to include the Port Authority of New York and New Jersey (the "Port Authority") as an additional insured and shall contain a provision that the policies may not be cancelled, terminated or modified without thirty days written notice to the Contracting Officer, US Army Corps of Engineers, 26 Federal Plaza, New York, New York 10278-0090 and the General Manager, Risk Management/Treasury, The Port Authority NYNJ, **225 Park Avenue South, 12th Floor, New York, New York 10003** (Attention: Risk Management). Moreover, the Commercial Liability policy shall not contain any provisions for exclusions from liability other than provisions for exclusions from liability forming part of the standard, basic unamended and unendorsed commercial general liability policy. The policies described in 1, 2, 3 and 4 above shall include cross-liability coverage.

c. Further, the liability policies shall be specifically endorsed to prohibit the insurance carrier from raising any defense involving in any way jurisdiction of the Tribunal, immunity of the Port Authority, governmental nature of the Port Authority or the provisions of any statutes respecting suits against the Port Authority without obtaining written expressed advance permission from the General Counsel of the Port Authority.

d. The Contractor shall take out and maintain Workers Compensation Insurance (including an other states coverage) in accordance with requirements of law. The policy shall include the United States Longshoremen and Harbor Workers Compensation Act Endorsement.

e. In the event the Government exercises the option provided for in this Section, the Contractor shall furnish to the Contracting Officer and to the Port Authority at the above addresses, within five (5) calendar days of the award of the opinion, a certificate of insurance evidencing the above required insurance. The policies and the certificate of insurance evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Port Authority in such insurance shall not be effective for such a period as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than thirty (30) days after written notice thereof to the Contracting Officer and the Port Authority. The Contracting Officer and the Port of Authority shall have the right, upon written notice, to receive copies of the

policies required hereunder.

f. Prior to exercise of the option provided for in this Section, the Contractor will be required to submit to the Contracting Officer a certification from the Contractor's insurance carrier that the amount inserted by the Contractor in the item entitled "Additional Cost for Optional Insurance" of the Price Schedule represents only the additional premium paid by the Contractor as a direct result of the specific insurance requirements of this Section and excludes those premium costs which would have otherwise been incurred by the Contractor if the insurance option had not been exercised.

g. Prior to any exercise of the option provided for in this Section, the Contractor shall furnish a computation from his insurance carrier, which sets forth the elements of the said additional premium, including, but not limited to the following: the additional costs of the Port Authority of New York and New Jersey being named as an additional insured broken down by policy type; any other additional costs due to the insurance requirement and the nature thereof.

h. Prior to any exercise of the option provided for in this Section, the Contractor shall furnish a computation as to that amount, if any, of the premium costs of his existing insurance coverage he is allocated to the work of this contract. The Contractor shall indicate whether such attribution is pursuant to a standard formula or cost administration practice or was otherwise derived.

i. The Government reserves the right to request a further elaboration with regard to this computation at any time before exercise of the option.

j. Payment items for insurance premium procured by the Contractor under this paragraph shall be made at contract lump sum price listed in the Price schedule, **Item No. 0002**, Additional Cost for Optional Insurance, if the optional item is awarded.

1.32 B

The Port Authority will procure and maintain in force at its own cost an Environmental Insurance Policy covering Contractor's pollution legal liability and professional liability, including cleanup, with a limit of \$20,000,000 each claim and in the aggregate and a deductible of \$100,000 as it relates to the work of this Contract for dredging and disposal of dredged material. The policy will be in effect commencing on the date that the Government awards this Contract and will include the Contractor and approved subcontractors as named insureds for such period that is appropriate for the methods used by the Contractor and subcontractors for dredging and disposal of dredged material.

The Contractor and the subcontractors must refer to the policy form to determine all coverage included and excluded and to determine their rights and responsibilities as insureds under the policy form. A copy of the policy may be examined during normal business hours by the Contractor or, at the Contractor's request, by any of the subcontractors performing work for the Contractor under this Contract, at the office of the General Manager, Risk

Management/Treasury, 225 Park Avenue South, 12th Floor, New York, NY 10003. at the office of the General Manager, Risk Management/Treasury, the Port Authority (Attention: Risk Management). The Contractor and the subcontractors are responsible for payment for all losses within the deductible and losses not covered by the Environmental Insurance Policy.

The Contractor and subcontractors shall comply with all obligations as insureds under or in connection with the above policy.

1.33 FIELD OFFICE

a. The contractor shall furnish the following new equipment to the existing Government Office Trailer facilities located at Caven Point, NJ for use of the Contracting Officer.

- * Four (4) cellular mobile phones (latest model) and monthly bills associated with the cellular phones are to be paid by the Contractor.

- * Three (3) 2-line telephones with extension and intercom connection, a separate cordless station phones 900 MHz (2)line (Total 12 Units). Installation and phone company fees, and monthly local and long distance bills for the duration of this contract are to be paid by the Contractor. The Contractor shall arrange for the telephone service and instruments as follows:

- * 7 separate phone lines with 12 instruments and wall jacks for voice communication.

- * One (1) five line digital telephone answering machine with remote answering and access capability and voice time/day stamp.

- * Four (4) 4-drawer, legal size lockable filing cabinets.

- * Two (2) Shelf set, four shelves high x 12 inches deep x 3 feet long, (attachable to wall).

- * One (1) Plain paper telefax machine with a dedicated telephone line and an adequate supply of paper. The supply of telefax paper shall be replenished by the Contractor as required by the Contracting Officer.

- * Four (4) IBM compatible personal computers Pentium IV 1 GHz or better with computer desk with printer stand, to be supplied complete in all respects to the Contracting Officer within 10 days of notice to proceed, including for each machine:

- * Computers shall be connected to a high speed internet connection with a bandwidth of at least 512 kbps DSL/cable network connection.

- * Four (4) computer printers: HP Deskjet 1120C or Equal

- * High-speed cache memory controller with 512 KB L2 PIPELINE BURST CACHE

- * 1 GHz SYSTEM BUS

- * 500 MB SDRAM or more

- * (1) 3.5" 1.44 MB diskette drives with hard drive controller

- * 20 GB hard drive with access time of 9 ms

- * Multi I/O card

- * 7 expansion slots

- * Sound Card W/ SPEAKERS

- * Enhanced 101 keyboard

- * DOS 6.22 or higher

- * 6 outlet surge protectors

- * 17" SVGA high-resolution flat panel display screen color monitor with refresh rate 75 Hertz or better

- * Diamond Viper V770D Video Card or better

- * DVD ROM and CD writer
- * 10/100 MB 3 COM Net Card with RJ45 connector (Network Connection)
- * 8 MB SVGA color graphics card minimum 100MHz
- * Provide paper supplies, ink cartridges, toners, etc., and maintenance as necessary for all office equipment.
- * Original DOS manual and disks installed
- * 3 button Mouse w/ pad
- * Modem 56000 Baud v90
- * Voice recognition software with 95% accuracy.
- * Software 95% Scan OCR Accuracy
- * CD ROM (DVD 40x/Speed) (INTERNAL)
- * CD 2X6R/W (READ/WRITE CD) W/ 20 DISKS (INTERNAL)
- * 100mb ZIP drive or equal, which will accept 100mb ZIP disks (internal)
- * WINDOWS 2000 or Windows (latest version)
- * Primavera for windows including all original disks and manuals or equivalent
- * 8 Microsoft Office 2000 Professional including MS Word and Excel or latest version
- * Anti-Virus software 2 types
- * Communication Software
- * Microstation software
- * All software shall be the latest version available, compatible with hardware, and shall be provided with CD ROM disks and manuals as installed
- * Computer must be completely set up with DOS and the above software operable. Setup person will give an eight-hour demonstration period to show that all components are functioning properly and answer any questions the Contracting Officer may have ABOUT ANY PROGRAM.
- * ALL REQUIRED CABLES CONNECTORS AND WIRING TO CREATE THE COMPUTER NETWORK AND HARDWARE.

The following new equipment shall also be provided:

- * One (1) 19" Color TV
- * A weather station at the PJ Project Office to electronically record wind speed, direction and rainfall intensity on a daily basis
- * One Video Cassette Recorder (VCR) VHS Format Record/Play ability
- * One Digital Video Camera with interface, software, spare battery, case and charger
- * One (1) Optical scanner-full page 4800 DPI Enhanced with optical character reader and OMNI PAGE PRO software SCSI interface TWAIN driver.
- * One (1) Vertical filing plan rack for twelve sets of 30 inch x 48-inch plans
- * One (1) Heavy duty, digital, photocopying machine, with auto document feeder, sorter, collator, enlarging/reduction ability, 8.5 x 11; 1, 8.5 x 14 and 1, 11 x 17 paper trays and an adequate supply of copy paper and printing supplies. The supply of copy paper shall be replenished by the contractor as required by the Contracting Officer
- * One (1) Coat Rack
- * One (1) Paper towel dispenser with towels
- * One (1) Paper cup dispenser with cups
- * One (1) Water cooler/heater
- * One steel locking storage cabinet

The following services shall be provided to the office:

- * Potable bottled water as required maintaining a daily water supply

with one spare bottle each day.

* Fire Extinguishers. Non-toxic, dry chemical, fire extinguisher meeting Underwriters Laboratories, Inc. approval for Class A, Class B, and Class C fires with a minimum rating of 10A; 20B; 10c

* Radio communication equipment including base station and two (2) portable units on the Contractor's frequency, all with desk chargers. If the Contractor's frequency is not VHF then provide, in addition to the contractor's frequency equipment, a VHF Base Station and FOUR (4) hand held VHF radios with desk chargers similar to ICOM IC-M125 (Base Station) and IC-M15 Hand Held.

* 2 pairs marine binoculars, Bushnell Powered 16X50 Insta Focus Waterproof Binocular or Equal

* Janitorial services for the two existing field office trailers at Caven Point, NJ on a daily basis including, but not limited to, sweeping, emptying baskets, weekly mopping, dusting all surfaces, servicing of toilets and washing and waxing of floors, cleaning all windows (interior and exterior) AND re-supply of paper goods and soap.

* Sufficient supply of electrical outlets.

* All utilities (water, sewer, electricity, heat, and all telephones) monthly bills are paid by the Contractor for the duration of this contract.

b. The Contractor shall provide maintenance of exterior and interior of two existing field office trailers at Caven Point, NJ to include all systems , i.e., electrical, mechanical such as HVAC, plumbing, water supply, sewer and cleaning. Cleaning shall include power washing. Payment shall be made for providing above accommodations and all costs in connection therewith shall be paid at contract lump sum price listed in the Bidding Schedule.

c. Computer Security requirements:

The Contractor will agree to accept responsibilities and comply with procedures indicated below in connection with the furnishing of Contractor-owned computers for use by the Government personnel in accordance with contract requirements.

1. The computers must be dedicated exclusively for the Government use. The Contractor will not use any computer it supplies which is designated for use by the Government. The Contractor will assure that the Central Processing Unit (CPU) is electronically isolated from the contractor's and not inter-connected via Local Area Network (LAN).

2. Normal access to the computer shall be restricted to Corps of Engineers personnel. The Contractor shall install computers in Office Trailers dedicated for Government use, whether new or existing. The Contractor must immediately notify the Government personnel when emergency access to the trailer was exercised by non-Government individuals, and what the circumstances were.

3. If the CPU hard drive fails, the Government will furnish an equivalent hard drive to the owner of the computer, and the old hard-drive will be returned to the Government. The Contractor shall not remove any hard drive nor proceed with any repair of the computer unless an authorized Government employee witnesses and approves of the repair.

4. At the time of return of the computer, the Contractor will allow the Government to first remove all information from the hard-drive.

5. The Contractor agrees to provide a written certification signed by an authorized officer of the company agreeing to the above policy.

1.34 PRICING OF ADJUSTMENTS

When costs are a factor in any determination of a contract price adjustment pursuant to the Changes clause or any other clause of this contract, such costs shall be in accordance with Part 31 of the Federal Acquisition Regulation and DFARS 52.215-7000 (APR 1985) as follows: In determining whether a pricing adjustment is expected to exceed \$100,000, the term "pricing adjustment" shall mean "the aggregate increases and /or decreases in cost plus applicable profits." (FAR 52.236-1)

1.35 PERFORMANCE OF WORK BY THE CONTRACTOR (1984 APR)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty (20) percent of the total amount of work to be performed under the contract. This percentage may be reduced by supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government. (FAR 52.236-1)

1.36 PARTNERSHIP IMPLEMENTATION PLAN

To more effectively accomplish this contract, the Government proposes to form a partnership with the Contractor. This partnership would draw on the strengths of each organization in an effort to achieve a quality product within budget and on schedule. This partnership would be bilateral in make-up and participation would be totally voluntary. If mutually agreed to by both parties, a facilitator satisfactory to both parties shall be hired who would be responsible to arrange for an offsite conference location for the initial session, provide all workshop materials, and compile and distribute a completed partnering agreement to all participants within 30 calendar days of the partnering session. The conference site location will be coordinated with the Contracting Officer for approval. The Contractor should plan for attendance of approximately 15-20 individuals from the Government in addition to the Contractor's and subcontractor's personnel. The cost of the facilitator and conference facility will be shared equally by the Contractor and Government. All other costs associated partnership implementation will be borne by the Contractor. It is anticipated that subsequent partnership conference will be one day each time and will be held on a monthly basis. After the first partnering conference, the Contracting Officer will prepare the agenda of each monthly partnering conference and the Contractor will prepare the minutes no later than 48 hours after each partnering conference was held.

1.37 PRECONSTRUCTION CONFERENCE

a. A Preconstruction Conference will be arranged by the Contracting Officer or his Representative after award of the contract and before the commencement of work. The Contracting Officer's Representative will notify the Contractor of the time and date set for the meeting. At this conference, the Contractor shall be oriented with respect to Government procedures and line of authority, contractual, administrative, and construction matters. Additionally, a schedule of required submittals will be discussed.

b. The Contractor shall bring to this conference the following items in either completed or draft form:

- The Contractor's order of work for dredging and performing other work.
- Accident Prevention Plan. (See Contract Clauses)
- Quality Control Plan.
- Letter appointing Superintendent.
- List of Subcontractors.
- All office equipment and furniture catalogs for Government approval. All office equipment and furniture will be brought to the site for field office within 15 calendar days after Government approval.

1.38 MISPLACED MATERIAL

Should the Contractor, during the progress of the work, lose, dump, throw overboard, sink, or misplace any material, plant, machinery, or appliance, which in the opinion of the Contracting Officer may be dangerous to or obstruct navigation, the Contractor shall recover and remove the same with the utmost dispatch. The Contractor shall give immediate notice, with description and location of such obstructions, to the Contracting Officer or inspector, and when required shall mark or buoy such obstructions until the same are removed. Should the Contractor refuse, neglect or delay compliance with the above requirements, such obstructions may be removed by the Contracting Officer, and the cost of such removal may be deducted from any money due or to become due the Contractor, or may be recovered under his bond. The liability of the Contractor for the removal of the vessel wrecked or sunk without fault or negligence shall be limited to that provided in sections 15,19, and 20 of the River and Harbor Act of March 1899. (33 USC 410 et seq.) (DoD FAR supplement 52.236-7006)

1.39 CHANGE OF DISPOSAL FACILITY

a. The Government reserves the right to negotiate a change to the contract as other disposal facilities become available to the Government.

b. If such a change causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, the Contracting Officer shall make an equitable adjustment to and modify the contract in accordance with the Contract Clause, CHANGE (FAR 52.243-4).

c. Placement of non-rock and non-HARS Materials at the Newark Bay Confined Disposal Facility (NBCDF): Placement of non-rock material unsuitable for placement at the HARS at the NBCDF shall be at the direction of the Contracting Officer or the Contracting Officer's Representative. In

addition the Contracting Officer or the Contracting Officer's Representative shall identify the area to be dredged by the Contractor. Placement of the non-rock material "unsuitable for placement at the HARS" at the NBCDF will be directed on a "scow by scow" basis. See the NJDEP Federal Consistency Determination/Water Quality Certification, which accompanies.

1.40 NOTES ON ESTIMATED ROCK ELEVATIONS

The rock contours shown on the plans and approximate rock lines shown the cross sections were developed from the data contained in the subsurface investigations and form the basis of the Government estimate. Since this data can be subject to different interpretations, bidders are advised to perform their own independent evaluation of rock contours and approximate rock lines.

1.41 CONTRACTOR DIVING OPERATION

a. Diving contractors shall submit a safe practices manual that includes the requirements of EM 385-1-1, Section 30.A.11 (1) through (5) to the Command Dive Coordinator (UDC) for review and acceptance at least fifteen (15) days prior to the commencement of dive operations.

b. A dive operations plan in accordance with EM 385-1-1, Section 30.A.13 a. (1) through (11) shall be developed and implemented by the diving contractor for each dive. The plan shall be submitted to the UDC and the Safety and Occupational Health Office Dive Safety Representative for review and acceptance prior to commencing the dive. Written acceptance in the form of a memorandum or electronic mail from the UDC is required for diving operations to commence.

1.42 FACILITIES

(TBF)

1.43 LABOR SURPLUS AREA EXPENDITURE REQUIREMENTS (JUL 1978)

(This paragraph pertains only to work done within the boundaries of Richmond County, New York.)

a. The site of the construction work is located in an area determined by the Secretary of Labor to be a Labor Surplus Area. Accordingly the Contractor hereby agrees to perform a substantial portion of the contract work in this or in any other labor surplus area. "Substantial portion" means the aggregate costs that will be incurred by the Contractor and his first-tier subcontractors and suppliers, on account of manufacturing, production, or services performed in this or any labor surplus area, and the costs that will be incurred by second-tier and lower-tier subcontractors on the construction site will exceed fifty percent (50%) of the price of this contract.

b. Upon request, the Contractor shall furnish to the Contracting Officer data to substantiate that this obligation is satisfied.

c. The Contracting Officer will furnish upon request a list of labor surplus areas.

1.44 QUANTITY SURVEYS

a. Quantity Surveys

Quantity Surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and the in-situ volume of the dredged material removed.

b. Government Surveys

The Contracting Officer will conduct the pre-dredge survey of the contract area as close to commencement of dredging as possible.

Upon the removal of the **Non-Rock Material, Bid Item Nos.**

0001AC, 0001AG, 0001AJ, 0001AK, and 0003, the Government will conduct post-dredge surveys, at no expense to the Contractor, except as noted in Section 00800, Special Contract Requirements entitled "Final Examination and Acceptance". Quantity computations for the volume of Non-Rock Material removed will be based on these surveys.

c. Contractor Surveys

The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys accomplished by the Contractor shall be conducted under the direction of the Contracting Officer, unless the Contracting Officer waives this requirements for each specific instance. For the Contracting Officer to approve the selected survey firm or licensed surveyor, the Contractor must provide documentation indicating that modern electronic horizontal positioning and sounding system equipment will be used for the surveys to be performed as well as documentation verifying the experience of the operators using the equipment. Typical information that will be required, as a minimum, includes the name, model, and year of manufacturer of the electronic equipment, the electronic frequencies of the horizontal positioning equipment and the sounding equipment, and manufacturer's stated positioning and sounding accuracies, and capability of the equipment proposed for usage. In addition, the Contractor must provide the information that a safe and suitable vessel meeting U.S. Coast Guard requirements is available and will be used for operation in the waters where the surveys are to be performed. The Contractor shall submit credentials/qualifications as evidence that qualified, experienced staff are available and will be used for the operation of the vessel as well as the electronic positioning and sounding equipment.

d. Field Notes

Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records related to the survey including

quantity calculations and cross sectional plots to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments.

The Contractor shall retain copies of all such materials furnished to the Contracting Officer.

1.45 ALTERNATE DISPOSAL SITE COMPLIANCE

ALTERNATE DISPOSAL SITE COMPLIANCE

If the Bidder selects to bid an alternate disposal site(s) the Apparent low bidder must demonstrate to the **Government within 70 calendars** from the date the Apparent low bidder is notified of being the low bidder; that the alternate disposal site(s) is operational, capable of processing and disposing of the Non-rock material unsuitable for placement at the HARS on that date for the in-situ quantity as per line item 0001AC and 0001AG and is in compliance with the New Jersey Department of Environmental Protection and/or with the New York State Department of State Coastal Zone Management Program Policies or other host state compliance as appropriate for the disposal of dredged material.

The alternate disposal site(s) must have sufficient capacity to receive Non-rock material unsuitable for placement at the HARS from the project site. The Apparent low bidder is required to perform all work to demonstrate that the alternate disposal site(s) is permitted, operational, capable of processing and disposing of the Non-rock material unsuitable for placement at the HARS on that date for the in-situ quantity as per line item 0001AC and 0001AG and is in compliance with the New Jersey Department of Environmental Protection and/or with the New York State Department of State Coastal Zone Management Program Policies or other host state compliance as appropriate for the disposal of dredged material. Disposal of the dredged material shall be in a fully permitted facility that has been permitted by the host state, with beneficial reuse wherever possible. Dredging, dewatering and/or other processing (if any), transfer, transportation and material disposal shall be performed in accordance with applicable law and requirements of all associated permits, approvals and government authorities having jurisdiction.

1.45.1 Information Submitted by the Apparent Low Bidder within 3 Calendar days

If the bidder selects to bid an alternate disposal site(s) for the processing and disposal of Non-rock material unsuitable for placement at the HARS, other than the Government designated upland site, the Apparent Low bidder must submit within 3 calendar days from the date they are notified of being the Apparent Low Bidder the following information for the alternate site(s):

- a) Name of the alternate site
- b) Location (street address, city, state) of the alternate site
- c) Point of Contact for the alternate site and telephone number
- d) Total capacity available at the alternate site for placement of Dredged Material
- e) Detailed list of all permits and approvals that are required for the selected site to demonstrate that the site is legal to receive, operate,

process and dispose of dredged Material and their status. Permits and approvals that shall be provided by the Apparent Low Bidder to the Government include placement site permits as applicable and others as related to transportation, processing and placement of the dredged material, or any other aspects of the bidder's proposed disposition of the dredged material including any and all permits, authorizations, contracts, agreements, licenses, rights-of-entry.

f) Copies of permits currently issued/approved at the time of submission.

g) Identification of Regulatory Agency required to issue/approve items listed in e) above

h) Timeline for obtaining the required permits - Bar Chart for Obtaining Permits and Approvals - A bar chart indicating time(s) required for obtaining all permits/approvals required by the bidder for each item of work as described by the bidder. The schedule will detail the major steps (such as time to prepare the permit request, the date it will be submitted to the regulatory agency, time for agency review, public coordination, etc).

i) Evidence of Anticipated Daily Production Capability - Evidence of the anticipated daily production capability (CY /day) and throughput rates for their proposed integrated system of dredging, transportation, processing, and placement for each alternate site proposed.

j) Disposal Site Elements Information -

1) State capacity of each element of the system. This should include both the total capacity and uncommitted capacity of the disposal site(s).

2) Time frame for availability for each element of the system: hours of operation in each day; days of operation in each week; months of operation in each year.

3) Location of each element of the system: Descriptions with reference maps; Distances between the elements, measured in miles.

k) Disposal Site(s) Construction Activity Schedule and Project Construction Schedule - A schedule showing the order in which the apparent low bidder proposes to perform the work and the dates on which the apparent low bidder contemplates starting and completing the salient features of work (including acquiring materials, plant and equipment, and the completion of the major acceptance areas). The schedule shall indicate that the production rate of the facility is sufficient to ensure that the project will be completed within the contract's required completion date. The apparent low bidder shall consider its proposed integrated system of dredging, transportation, processing, and placement. The schedule shall be in the form of a progress chart of suitable scale to indicate approximately the percentage of work scheduled for completion by any given date during the period. The apparent low bidder must indicate on this schedule the salient features of work for the alternate disposal site(s) that are needed to be completed within 70 calendar days from date the Apparent low bidder is notified of being the low bidder so that the site(s) is operational, capable of processing and disposing of the Non-rock material unsuitable for placement at the HARS for the in-situ quantity identified in the price schedule.

1.45.1.A Synopsis of proposed operation - Narrative of no more than five (5) pages detailing the operation to move the Non-rock material unsuitable for placement at the HARS from the site to its final resting place that the apparent low bidder has identified. The synopsis shall provide suitable detail to adequately track the material from dredging, through transportation and processing to its ultimate placement. The synopsis shall include the following:

- 1) Provide a list of the names, locations, and point of contact, telephone number, loading and unloading facilities for each disposal facility including site capacity.
- 2) Provide a detailed map indicating locations of loading and unloading facilities or area within the proposed property to be utilized, for each disposal location, with a description of the material handling process at each disposal location.
- 3) Provide Hours of operation, transportation and operating procedures at unloading facilities.
- 4) Provide Facilities information: Access to Unloading facilities, Acceptable scow size, Disposal Site O&M manual, demurrage time to unload scow or trucks, anticipated processing time and placement materials, and other facility restriction if any.
- 5) Provide a detailed description of the dredging procedure proposed to include the identification of dredges, buckets, scows, tugs and other salient equipments to be used for the project.
- 6) Submit a detailed description of the loading and transportation procedures to be utilized.

1.45.2 Information to be submitted by the Apparent Low Bidder within 70 calendar days

The Apparent Low Bidder shall submit the following information within 70 Calendar Days from the date the Apparent Low bidder is notified of being the low bidder.

- a) Information submitted within 3 days of notification - All the information provided previously must also be included in the final package, revised as necessary.
- b) Evidence Demonstrating that the Alternate Disposal site(s) is Permitted, Operational, Capable of Processing and Disposing Dredged Material from the project site - The apparent low bidder must demonstrate to the Government within 70 calendar days from the date the Apparent low bidder is notified of being the low bidder that the alternate disposal site(s) is permitted, operational, capable of processing and disposing of the Non-rock material unsuitable for placement at the HARS for the in-situ quantity as per line items 0001AC and 0001AG by calendar day 70 from date the Apparent low bidder is notified of being the low bidder and that the disposal site(s) is in compliance with the New Jersey Department of Environmental Protection and/or

with the New York State Department of State Coastal Zone Management Program Policies or other host state compliance as appropriate for the disposal of dredged material. Any sampling and testing required for obtaining permits required for dredged material transportation, processing or placement will be at the cost of the Apparent low bidder. The Apparent Low Bidder must provide to the Government proof that the material to be taken from the project site to the Apparent Low Bidder's upland site(s) meets any regulatory testing requirements.

c) Copies of Required Permits - The Apparent low bidder shall provide copies of all required permits and approvals for dewatering and/or other processing (if any), the transfer, transportation and final disposal of all dredged materials, and shall submit evidence of such permits and approvals to the Government. Documentation of compliance with any other legal or regulatory requirement must be provided to the Government Water Quality Certificates (WQC) in accordance with Section 401 of the Clean Water Act, Coastal Zone Management (CZM) consistency determinations, and State agreement pursuant to Section 307 of the Coastal Zone Management Act of 1972 as amended, for activities conducted in a state, which has a federally approved Coastal Zone Management program. WQC and CZM permits related to the dredging (as opposed to dredged material transport, disposal and placement) will be provided by the New York District U.S. Army Corps of Engineers, Section 00900.

d) The Apparent Low Bidder must provide:

- 1) Proof of the proposed Alternate Disposal Site(s) being licensed for acceptance of dredged material by all appropriate regulatory entities (permits for the site previously provided should be also included in this submission).
- 2) Proof of Disposal Site Owner's approval granting the apparent low bidder the right to dispose dredged material at that site.
- 3) Proof of uncommitted Disposal Site(s) capacity adequate for the project.
- 4) Certification of the Disposal Site's availability corresponding to the current project schedule.
- 5) Proof of approval by the appropriate regulatory agencies that the dredged material for this contract is compatible for processing and disposal at the proposed Disposal Site(s).
- 6) Demonstrate minimum required Disposal Site(s) production capability to ensure that the project will be completed within the contract requirement. The Apparent low bidder shall provide the estimated daily production rates for processing and disposal for each alternate disposal site(s).
- 7) Proof of apparent low bidder's experience in the proposed Disposal Site(s) operations, or, provide supplemental information demonstrating ability to execute the proposed disposal method, if no direct experience is applicable.

e) Transportation Capabilities - The Apparent Low Bidder must provide the following:

1) Provide proof and certification that sufficient transportation capabilities are available to ensure that the project will be completed within the contract requirement. Provide proof that the proposed transportation equipment's has current permits, licenses, registrations, or other required certifications.

2) Provide proof of the apparent low bidder's experience in the proposed dredged material transportation or provide supplemental information demonstrating the ability to execute the proposed transportation method, if no direct experience is applicable.

f) Processing Capabilities - The Apparent Low Bidder must provide the following:

1) Provide detailed description of the proposed technological processing, including but not limited to, the following stages, if applicable:

a. Dewatering, addressing retention time, any limitations on return of effluent, limitations on location for effluent release, proposed method for effluent disposal, if applicable. Debris removal, addressing the methods of removal and disposal.

b. Material treatment, specifying the method of treatment, additives used during the processing, mechanical processing used, decontamination methods incorporated, stabilization methods incorporated, and chemical treatment (if any).

c. Interim storage, if required, identifying the method of storage, required and available storage capacity, and the timeframe it will be used, if applicable.

d. Rehandling of material (if any) used in the processing of dredged material affecting the project.

2) Provide any permits and/or licenses applicable to the proposed process, if any.

3) Provide any patented or proprietary permissions applicable to the proposed process, if any.

4) Provide proof of processing plant availability for use by the apparent low bidder.

5) Certify processing plant's availability corresponding to the current project schedule.

6) Provide proof of Apparent Low Bidder's experience in the proposed processing method or, provide supplemental information demonstrating ability to execute the proposed processing method, if no direct experience is applicable.

-- End of Section --

PROJECT IDENTIFICATION SIGN CIVIL PROJECT

The graphic format for this 4' x 6' sign panel follows the legend guidelines and layout as specified below. The large 4' x 4' section of the panel in the right is to be white with black legend. The 2' x 4' section of the sign on the left with the full corps Signature (reverse version) is to be screen printed Communications Red on the white background. The castle insignia will be furnished by the Government in pressure sensitive vinyl for affixing by the Contractor. See attached sheet for fabrication and mounting guidelines.

SAMPLE:

Legend Group 1: One to two-line description of Corps relationship to project
Color: white
Typeface: 1.25" Helvetica Regular
Maximum line length: 19"

Legend Group 2: Division or District Name (optional, Place below 10.5" Reverse Signature (6" Castle)
Color: white
Typeface: 1.25" Helvetica Regular

Legend Group 3: One-to three-line project title legend describes the work being done under this contract.
Color: Black
Typeface: 3" Helvetica Bold
Maximum line length: 42"

Legend Group 4: One-to two-line identification of project or facility (civil works) or name of sponsoring department (military).
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Cross-align the first of Legend Group 4 with the first line of the Corps Signature (US Army Corps) as shown.

Legend Group 5a-b: One-to-five line identification of prime contractors including: type (architect, general contractor, etc.), corporate or firm name, city, state. Use of Legend Group 5 is optional.
Color: Black
Typeface: 1.25" Helvetica Regular
Maximum line length: 21"

All typography is flush left and rag right upper and lower case with initial capitals only as shown.
Letter and word spacing to follow Corps standards as specified in * Appendix D

(Dimensions are in inches)

Sign Type	Legend	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-01	various	4' x 6'	4' x 4'	HDO-3	48"	WH-RD/BK

→ Show non-Federal local partner's name and logo -
Port Authority of New York and New Jersey

* Refers to the U.S. Army Corps of Engineers, "Sign Standards Manual", EPS-310-1-6.

Fabrication and Mounting Guidelines

As Construction Project Identification signs and Safety Performance signs are to be fabricated and installed as described below. The signs are to be erected at a location designated by the contracting officer and shall conform to the size, format, and typographic standards shown on the attached sheets.

The sign panels are to be fabricated from .75" High Density Overlay Plywood. Panel preparation to follow HDD specifications provided in Appendix B. **

Sign graphics to be prepared on a white non-reflective vinyl film with positionable adhesive backing.

All graphics except for the Communications Red background with Corps signature on the project sign are to be die-cut or computer-cut non-reflective vinyl, pre-spaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown on the attached sheets.

The 2'x4' Communications Red panel (to match PMS-032) with full Corps signature (reverse version) is to be screen printed on the white background. Identification of the District or Division may be applied under the signature with white cut vinyl letters prepared to Corps standards. Large scale reproduction artwork for the signature is provided on page 4.8

(photographically enlarge from 6.875" to 10.5"). **

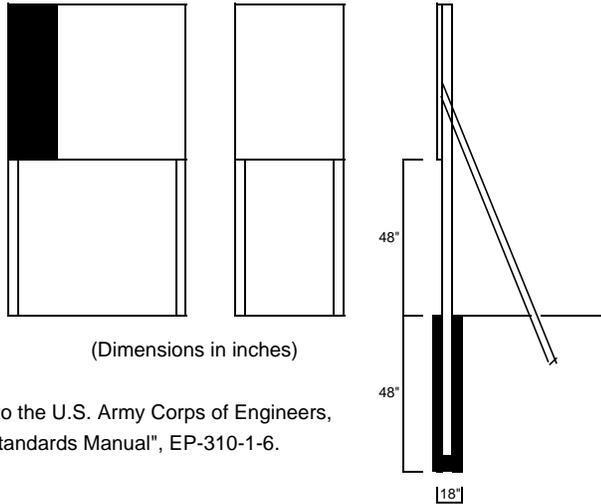
Drill and insert six (6) .375" T-nuts from the front face of the HDD sign panel. Position holes as shown. Flange of T-nut to be flush with sign face.

Apply graphic panel to prepared HDD plywood panel following manufacturers' instructions.

Sign uprights to be structural grade 4"x4" treated Douglas Fir or Southern Yellow Pine. No.1 or better. Post to be 12' long. Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (.5") back of hole to accept socket head cap screw (4"x.375").

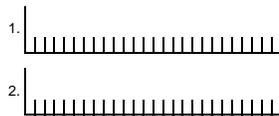
Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4" hole. Local soil conditions and/or wind loading may require bolting additional 2"x4" struts on inside face of uprights to reinforce installation as shown.

Detailed specifications for HDD plywood panel preparation are provided in Appendix B. **
Shown below the mounting diagram is a panel layout grid with spaces provided for project information. Photocopy this page and use as a worksheet when preparing sign legend orders.



** Refers to the U.S. Army Corps of Engineers, "Sign Standards Manual", EP-310-1-6.

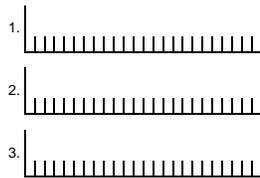
Construction Project Sign Legend Group 1: Corps Relationship



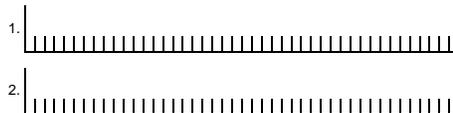
Legend Group 2: Division/District Name



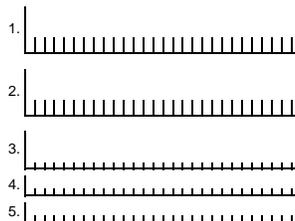
Legend Group 3: Project Title



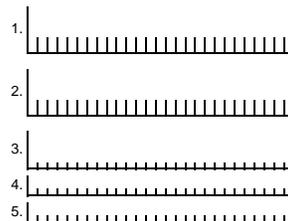
Legend Group 4: Facility Name



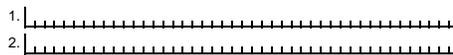
Legend Group 5a: Contractor/A&E



Legend Group 5b: Contractor /A&E



Safety Performance Sign Legend Group 1: Project Title



Legend Group 2: Contractor/A&E



SAFETY PERFORMANCE SIGN

The graphic format, color, size and type-faces used on the sign are to be reproduced exactly as specified below. The title with First Aid logo in the top section of the sign, and the performance record captions are standard for all signs of this type. Legend Group 2 and 3 below identify the project and the contractor and are to be placed on the sign as shown. Safety record numbers are mounted on individual metal plates and are screw-mounted to the background to allow for daily revisions to posted safety performance record.

Legend Group 1: Standard two-line title "safety is a Job Requirement", with (8" od.) Safety Green First Aid logo. Color: To match PMS 347
Typeface: 3" Helvetica Bold
Color: Black

Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

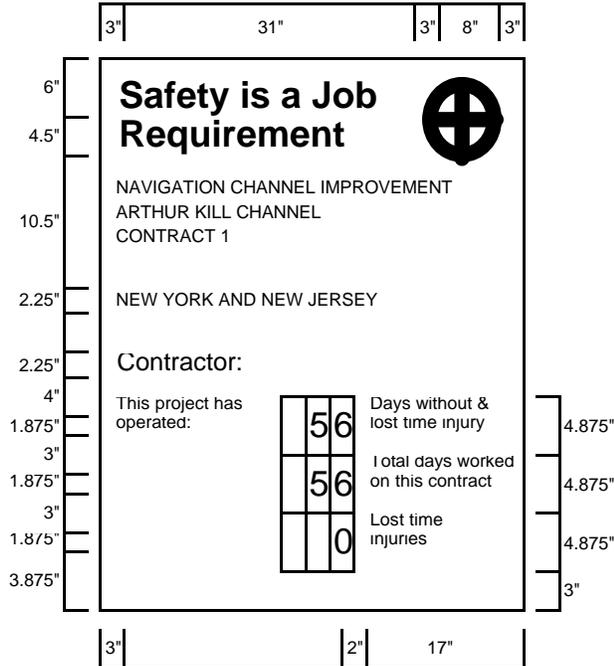
Legend Group 3: One - to two-line identification: name of prime contractor and city, state address.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Legend Group 4: Standard safety record captions as shown.
Color: Black

Typeface: 1.25" Helvetica Regular

Replaceable numbers are to be mounted on white .060: aluminum plates and screw-mounted to background.
Color: Black
Typeface: 3" Helvetica Regular
Plate size: 2.5"x.5"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D. *

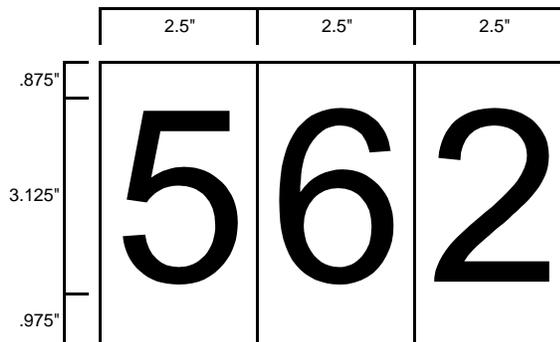


Dimensions inches.

See attached sheet for fabrication and mounting guidelines.

* Refer to the U.S. Army Corps of Engineers, "Sign Standards Manual", EPS-310-1-6.

Sign Type	Legend Size	Panel Size	Post Size	Specifications Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4"x4"	4"x4"	HDO-3	48"	WH/BK-GR



00800 - 37

SECTION 00900 – WAGE RATES

WORK UNDER THIS CONTRACT IS CATEGORIZED AS

BUILDING: HEAVY: X HIGHWAY: RESIDENTIAL:

THE FOLLOWING CLASSIFICATION (S) AND RATES SET FORTH
IN WAGES DECISION NO.: NJ 000006

APPLY TO THIS CONTRACT:

- : THOSE SPECIFICALLY DESIGNATED “BUILDING”
- : X SPECIFICALLY “HEAVY”
- : THOSE SPECIFICALLY DESIGNATED “HIGHWAY”
- : THOSE SPECIFICALLY DESIGNATED “COMMERCIAL”
- : X THOSE SPECIFICALLY DESIGNATED ANY OF THE ABOVE
CATEGORIES.

ALL OTHER CLASSIFICATIONS AND RATES ARE INAPPLICABLE.

SUBJECT: Arthur Kill, Channel Navigation Improvement, Contract 1, NY and NJ: Solicitation Number DACW51-03-B- 0001

1. Forwarded herewith are the General Wage Decision(s) , EO 11246 affirmative action requirements, and labor surplus area coverage for the subject solicitation:

NY020001, Modification 1, Publication Date 10/04/02; NJ020006, Modification 1, Publication Date 10/04/02

General Decision No: NY020001 (Dredging, Statewide)

Modification Number 2
Publication Date: 10/04/02

General Decision No: NJ020006 ((Dredging, Statewide)

Modification Number 0
Publication Date: 3/2/01

Labor Surplus Area:

Richmond County - yes
Union County - no
Hudson County - no, except for Union City and Jersey City

Affirmative Action Requirements:

Union County
Female: 6.9%
Minority: 17.3%

Hudson County
Female: 6.9%
Minority: 12.8%

Richmond County
Female: 6.9%
Minority: see below

<u>Trade</u>	<u>For Minorities</u>
Electricians	9.0% - 10.2%
Carpenters	27.6% - 32.0%
Steamfitters	12.2% - 13.5%
Metal Lathers	24.6% - 25.6%
Painters	22.8% - 26.0%
Operating Engineers	25.6% - 26.0%
Plumbers	12.0% - 14.5%

Iron Workers (Structural)	25.9% - 32.0%
Elevator Constructors	5.5% - 6.5%
Bricklayers	13.4% - 15.5%
Asbestos Workers	22.8% - 28.0%
Roofers	6.3% - 7.5%
Iron Workers (Ornamental)	22.4% - 23.0%
Cement Masons	23.0% - 27.0%
Glaziers	16.0% - 20.0%
Plasterers	15.8% - 18.0%
Teamsters	22.0% - 22.5%
Boilermakers	13.0% - 15.5%
All Other	16.4% - 17.5%

Please ensure that the decision(s) are incorporated into the subject solicitation and resultant contract as set forth in FAR 22.404-6.

Note that the Davis-Bacon Act will not apply to work performed at a commercial disposal site. If other than a commercial site is anticipated, please advise.

Sandra Gaffney
District Labor Advisor

Encls: as

+++++

General Decision Number **NY020001 sg**
Superseded General Decision No. NY010001

State: New York

Construction Type:
DREDGING

County(ies):
STATEWIDE

New York

All dredging, excpt self-propelled hopper dredges, on the Atlantic Coast and tributary waters emptying into ther Atlantic Ocean.

Modification Number	Publication Date
0	03/01/2002
1	10/04/2002

COUNTY(ies):
STATEWIDE

* ENGI0025D 10/01/2002

	Rates	Fringes
DIPPER & CLAMSHELL DREDGE:		
Operator	28.07	6.45+a+b
Engineer	24.72	6.45+a+b
Maintenance Engineer	23.59	5.85+a+b
Welder	23.22	5.85+a+b
Mate	21.99	5.85+a+b
Boat Master	23.24	6.45+a+b
Boat Captain	22.15	5.85+a+b
Oiler	18.59	5.25+a+b
Deckhand; Tug Deckhand	18.13	5.25+a+b
Scowman	17.88	5.25+a+b
DRAG BUCKET DREDGE:		
Operator	25.09	6.45+a+b
Engineer	21.41	6.45+a+b
Maintenance Engineer	21.21	5.85+a+b
Mate	19.82	5.85+a+b
Deckhand	16.17	5.25+a+b
HYDRAULIC DREDGES:		
Leverman	27.56	6.45+a+b
Engineer; Derrick Operator	24.17	6.45+a+b
Chief Mate	23.82	6.45+a+b
Chief Welder	24.48	6.45+a+b
Maintenance Engineer	23.59	5.85+a+b
Electrician	23.43	6.45+a+b
Welder Dredge	23.21	5.85+a+b
Spider Barge Operator	23.01	5.85+a+b
Mate	21.99	5.85+a+b
Boat Master	23.23	6.45+a+b
Boat Captain	21.66	5.85+a+b
Steward	21.94	6.45+a+b
Oiler	18.59	5.25+a+b
Deckhand	17.90	5.25+a+b
Tug Deckhand	18.13	5.25+a+b
Shoreman	17.90	5.25+a+b
Assistant Cook	18.00	5.25+a+b
Night Cook	18.00	5.25+a+b
Messman	17.49	5.25+a+b
Janitor/Porter	17.49	5.25+a+b
Fill Placer	23.82	6.45+a+b
Assistant Fill Placer	21.80	6.45+a+b
COMPANY LEAD DREDGEMAN:		
Lead Dredgeman	27.56	6.45+a+b
TUG BOATS over 1,000 H.P. (with master or captain having license endorsed for 200 miles off shore):		
Tug Master	24.68	6.45+a+b
Tug Captain	23.69	6.45+a+b
Tug Chief Engineer	22.95	5.85+a+b
Tug Engineer	22.48	5.85+a+b
Tug Deckhand	18.13	5.85+a+b

TUG BOATS over 1,000 H.P. (without master or captain having license endorsed for 200 miles off shore):

Tug Master	23.23	6.45+a+b
Tug Captain	22.15	5.85+a+b
Tug Engineer	22.48	5.85+a+b
Tug Deckhand	18.13	5.25+a+b

DRILL BOATS:

Engineer	23.54	6.45+a+b
Blaster	23.81	6.45+a+b
Driller	23.55	6.45+a+b
Welder	23.30	5.85+a+b
Machinist	23.30	5.85+a+b
Tug Master	20.48	6.45+a+b
Tug Captain	19.53	5.85+a+b
Oiler	20.46	5.25+a+b
Tug Deckhand	15.97	5.25+a+b
Core Driller	18.56	5.25+a+b

DIVERS:

Diver	40.88	6.45+a+b
Standby Diver	27.20	6.45+a+b
Tender	31.46	6.45+a+b
Standby Tender	22.61	5.85+a+b

DREDGING PIPELINE CABLE-LAYING:

Leverman	28.18	6.45+a+b
Control Tower Operator	24.90	6.45+a+b
Rigger	18.42	5.25+a+b
Line up Operator, End Prep.	17.82	5.25+a+b
Diver	41.77	6.45+a+b
Diver Tender	25.93	6.45+a+b

ENGINEER:

1st	24.90	6.45+a+b
2nd, 3rd & 4th	24.58	6.45+a+b
Electrician	24.48	6.45+a+b
Electro Hydro Tech.	20.14	5.85+a+b
Tug Master	26,15	6.45+a+b
Tug Captain	22.79	6.45+a+b

PREMIUMS: Additional 20% for hazardous material work

FOOTNOTES APPLICABLE TO ABOVE CRAFTS:

a. PAID HOLIDAYS: New Year's Day, Martin Luther King Day, Memorial Day, Good Friday, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, and Christmas Day

b. VACATION: Seven percent (7%) of the straight time rate multiplied by the total hours worked.

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

Unlisted classifications needed for work not included within

the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

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

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

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour 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
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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

+++++

General Decision Number NJ020006 sg

Superseded General Decision No. NJ010006

State: New Jersey

Construction Type:

DREDGING

County(ies):

STATEWIDE

All Dredging except self propelled hopper dredges, on the Atlantic Coast & tributary waters emptying into the Atlantic Ocean.

Modification Number Publication Date

0 03/01/2002

1 10/04/2002

COUNTY(ies):

STATEWIDE

* ENGI0025D 10/01/2002

	Rates	Fringes
DIPPER & CLAMSHELL DREDGE:		
Operator	28.07	6.45+a+b
Engineer	24.72	6.45+a+b
Maintenance Engineer	23.59	5.85+a+b
Welder	23.22	5.85+a+b
Mate	21.99	5.85+a+b
Boat Master	23.24	6.45+a+b
Boat Captain	22.15	5.85+a+b
Oiler	18.59	5.25+a+b
Deckhand; Tug Deckhand	18.13	5.25+a+b
Scowman	17.88	5.25+a+b
DRAG BUCKET DREDGE:		
Operator	25.09	6.45+a+b
Engineer	21.41	6.45+a+b
Maintenance Engineer	21.21	5.85+a+b
Mate	19.82	5.85+a+b
Deckhand	16.17	5.25+a+b
HYDRAULIC DREDGES:		
Leverman	27.56	6.45+a+b
Engineer; Derrick Operator	24.17	6.45+a+b
Chief Mate	23.82	6.45+a+b
Chief Welder	24.48	6.45+a+b
Maintenance Engineer	23.59	5.85+a+b
Electrician	23.43	6.45+a+b
Welder Dredge	23.21	5.85+a+b
Spider Barge Operator	23.01	5.85+a+b
Mate	21.99	5.85+a+b

Boat Master	23.23	6.45+a+b
Boat Captain	21.66	5.85+a+b
Steward	21.94	6.45+a+b
Oiler	18.59	5.25+a+b
Deckhand	17.90	5.25+a+b
Tug Deckhand	18.13	5.25+a+b
Shoreman	17.90	5.25+a+b
Assistant Cook	18.00	5.25+a+b
Night Cook	18.00	5.25+a+b
Messman	17.49	5.25+a+b
Janitor/Porter	17.49	5.25+a+b
Fill Placer	23.82	6.45+a+b
Assistant Fill Placer	21.80	6.45+a+b
COMPANY LEAD DREDGEMAN:		
Lead Dredgeman	27.56	6.45+a+b
TUG BOATS over 1,000 H.P. (with master or captain having license endorsed for 200 miles off shore):		
Tug Master	24.68	6.45+a+b
Tug Captain	23.69	6.45+a+b
Tug Chief Engineer	22.95	5.85+a+b
Tug Engineer	22.48	5.85+a+b
Tug Deckhand	18.13	5.85+a+b
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END OF GENERAL DECISION

SECTION 00901
SAMPLE FORMS

REPORT OF OPERATIONS-PIPELINE, DIPPER OR BUCKET DREDGES						REPORT CONTROL SYMBOL		
THRU:			TO:			FROM:		REPORT #
CHARACTER OF REPORT	MAINT.	NEW WORK	DAILY	STATUS	COMPLETION	ANNUAL		DATE OR PERIOD
DREDGE	NAME AND TYPE		SIZE	PIPELINE (in. dia. disch.)		DIPPER OR BUCKET (cu. yds. cap)		
	HORSE-POWER OF	DREDGE PUMP		SUCTION PIPE JET		CUTTER OR BUCKET		PROPULSION
	NUMBER OF CREW MEMBERS	DREDGE	SHORE	OTHER PLANT	TOTAL	WORK SCHEDULE	SHIFTS/DAY	DAYS/WEEK
PROJECT AND BAR	NAME AND TYPE			AUTH	WIDTH	DEPTH	OVERDEPTH	
	LOCATION (include station numbers)			STA. NO.:		Range:		
CHARACTER OF MATERIAL	ABSOLUTE DENSITY (GMS/liter)			IN PLACE DENSITY (GMS/liter)		VOIDS RATIO		
	GRAIN SIZE				GEOLOGICAL CLASSIFICATION			
CONTRACT ORDER	NUMBER	CONTRACTOR	HIRED LABOR	TOTAL NO. OF DAYS ON WHICH WORK WAS DONE				
CHANNEL CONDITION	AVERAGE DEPTH		BD	AD	MINIMUM SOUNDING		BD	AD
RIVER STAGE	MINIMUM	TIME	MAXIMUM	TIME	GAUGE LOCATION			
WEATHER CONDITION	(clear, cloudy, rain, and fog)			VISIBILITY		WIND (maximum, velocity, & direction)		
WORK PERFORMED				DISTRIBUTION TIME				
ITEM	UNIT	QUANTITY	EFFECTIVE WORKING TIME (chargeable to cost of work)			HOURS	MIN.	
AVERAGE WIDTH OF CUT	FEET		PUMPING OR DREDGING					
TOTAL TRAVEL THIS PERIOD	FEET		PERCENTAGE OF EFFECTIVE RENTAL TIME				%	
TOTAL TRAVEL TO DATE	FEET		BOOSTER (in line)					
TOTAL ADVANCE TO DATE	FEET		NON-EFFECTIVE WORKING TIME (chargeable to cost of work)					
FLOATING PIPE:	SHORE PIPE:							
TOT. LENGTH OF DISCHARGE	FEET		HANDLING PIPE LINES					
AVERAGE LIFT	FEET		HANDLING ANCHOR LINES					
AVERAGE PUMP SPEED	R.P.M.		CLEARING PUMP AND PIPE LINE					
AVG. DREDGED/PUMP. HR.	CU. YDS.		CLEARING CUTTER OR SUCTION HEAD					
SCOWS LOADED	NUMBER		WAITING FOR SCOWS					
AVERAGE LOAD PER SCOW	CU. YDS.		TO AND FROM WHARF OR ANCHORAGE					
CUBIC YARDS REMOVED			CHANGING LOCATION OF PLANT ON JOB					
AMOUNT DREDGED THIS PERIOD:			LOSS DUE TO OPPOSING NATURAL ELEMENTS					
(1) GROSS (computed amount)			LOSS DUE TO PASSING VESSELS					
(2) CREDITED (pay place)			SHORE LINE AND SHORE WORK					
AMOUNT PREVIOUSLY DREDGED:			WAITING FOR BOOSTER					
(1) GROSS (computed amount)			MINOR OPERATING REPAIRS (explain in remarks)					
(2) CREDITED (pay place)			WAITING FOR ATTENDANT PLANT					
TOTAL AMOUNT DREDGED TO DATE:			PREPARATION AND MAKING UP TOW					
(1) GROSS (computed amount)			TRANSFERRING PLANT BETWEEN WORKS					
(2) CREDITED (pay place)			LAY TIME OFF SHIFT AND SATURDAYS					
ATTENDANT PLANT			SUNDAYS AND HOLIDAYS					
ITEM	NAME OR NUMBER	HOURS	FIRE DRILL					
			MISCELLANEOUS (explain in remarks)					
			TOTAL NON-EFFECTIVE WORKING TIME					
			PERCENTAGE OF NON-EFFECTIVE RENTAL TIME				%	
			TOTAL EFFECTIVE AND NON-EFFECTIVE TIME (chargeable to cost of work)					
			PERCENTAGE OF TOTAL TIME IN PERIOD				%	
			LOST TIME (not chargeable to cost of work)					
			MAJOR REPAIRS AND ALTERATIONS					
			CESSATION					
			COLLISIONS					
			MISCELLANEOUS (explain in remarks)					
NUMBER OF INSPECTIONS	BY DISTRICT PERSONNEL		TOTAL LOST TIME					
	BY DIV&OCE PERSONNEL		PERCENTAGE OF TOTAL TIME				%	
CONTRACT USE ONLY	HAS ANYTHING DEVELOPED WHICH MIGHT LEAD TO A CHANGE ORDER OR CLAIM?	YES OR NO	TOTAL TIME PERIOD					

ITEM					COST
DIRECT PLANT OPERATING COSTS					
UNIFORM DAILY RATE BASIS (To be completed when submitting Status and Completion reports.)					
CHARGES: _____ DAYS AT \$ _____ PER DAY					
(Item 19, ENG Form 22 (Costs) - adjusted to exclude plant increment cost)					
OR					
ACTUAL PLANT COSTS (To be completed when submitting Annual report)					
PAYROLLS (gross).....				\$	
SUBSISTENCE & QUARTERS OR PER DIEM & MILEAGE.....				\$	
FUEL _____ BARREL AT \$ _____ PER BARREL.....				\$	
WATER.....				\$	
LUBRICANTS.....				\$	
PLANT OWNERSHIP COSTS (as computed below).....				\$	
INSURANCE.....				\$	
ATTENDANT PLANT.....				\$	
MISCELLANEOUS.....				\$	
SUBTOTAL -- UNIFORM DAILY RATE OR ACTUAL COSTS					
SUBTOTAL -- PLANT UNIT COST \$ _____ PER CUBIC YARD					
SHORE WORK					
SUBTOTAL -- SHORE WORK COSTS \$.....					
SUBTOTAL -- SHORE WORK UNIT COSTS \$ _____ PER CUBIC YARD					
OTHER COSTS:					
SURVEYS.....				\$	
INSPECTION AND SUPERVISION.....				\$	
OVERHEAD.....				\$	
OTHER INDIRECT COSTS.....				\$	
SUBTOTAL--OTHER COSTS					\$
SUBTOTAL -- OTHER UNIT COST _____ PER CUBIC YARD					
GRAND TOTAL--ALL COST.....					\$
GRAND TOTAL--ALL UNIT COST _____ PER CUBIC YARD					
OPERATING SUPPLIES				ANNUAL REPORT DATA	
				(complete when submitting Annual report)	
COMMODITIES	CONSUMED		INVENTORY		
	UNIT	QUANTITY	QUANTITY	VALUE	
FUEL (oil)					COST PER RENTAL MINUTE
					(Based on total operating cost).....
LUBE (oil)					\$
					TOTAL COST OF PLANT
LUBE (grease)					(End of F.Y. reporting period).....
					\$
WATER					BOOK VALUE
					(End of F.Y. reporting period).....
					\$
					BALANCE IN PLANT ACCOUNT
					(End of F.Y. reporting period).....
					\$
					PLANT OWNERSHIP COSTS
					(Actual for F.Y. reporting period).....
					DESCRIPTION.....
					\$
					REPAIRS.....
					\$
					CESSATION OF WORK.....
					\$
					SMALL TOOLS, ETC.....
					\$
SUBSISTENCE SUPPLIES					
MISCELLANEOUS SUPPLIES					
TOTAL					\$
REMARKS					
SUBMITTED BY (Name, title, and signature)			RECOMMENDED BY (Name, title, and sig)		APPROVED BY (Name, title, and signature)

REPORT NO. _____
 PROJECT _____
 LOCATION _____
 DRILL BOAT _____ TYPE OF DRILL _____

DATE: _____
 TIME STARTED _____ FRAME HRS. WORKED _____
 TIME FINISHED _____ FRAME IDLE _____
 FRAMES USED _____

DELAYS	THIS DATE	CONTRACT TO DATE
MOVE ON/OFF SITE - WEEKEND, DAY END		
TEST FOR ROCK		
OFF ROCK - NO DRILLING		
WAIT OTHER FRAMES		
MOVE FRAMES		
CHANGE BITS & BARS		
CLEAN HOLES		
LOAD HOLES		
MOVE TO BLAST		
MOVE TO BLAST & NEW CUT		
MOVE TO NEW RANGE		
TRAFFIC		
WEATHER		
LIGHTNING		
REPAIRS		
GREASE		
LOAD/WAIT POWDER		
ANCHORS		
SURVEY		
OTHERS (Specify in "Remarks")		
TOTAL FRAME HRS. DELAYS		
TOTAL FRAME HRS. WORKED		
TOTAL FRAME REV. HRS.		
FRAME TIME EFFICIENCY %		
NO. TIMES MOVE TO BLAST		
NO. TIMES MOVE TO BLAST & NEW CUT		
NO. TIMES MOVE TO NEW RANGE		

WEATHER _____
 WIND _____
 SEASON _____

ATTENDANT PLANT HOURS _____

REMARKS ON DELAYS _____

CREW	U.S.	OTHER	TOTAL
SUPERINTENDENT			
CIVIL ENGINEER			
CAPTAIN			
DAY FORMAN			
NIGHT FORMAN			
DRILLER			
BLASTER			
HELPER			
WATCH ENGINEER			
MACHINIST			
OILER			
MATE			
DECK HAND			
TUG OPERATOR			
CLERK			
ROD MAN			
OTHERS			

DAILY OPERATING CONDITIONS

SECTION OR AREA (S) _____
 CUT NUMBER (S) _____
 CROSS RANGES (STATIONS) _____ TO _____
 _____ TO _____ TO _____
 _____ TO _____ TO _____

DRILLING GRADE _____ NO. OF HOLES DRILLED _____
 PROJECT GRADE _____ NO. OF HOLES BLASTED _____
 AVG. TOP MATERIAL _____ LBS EXPLOSIVE USED _____
 AVG. FEET DRILLED _____ CAPS USED _____
 BOOSTER USED _____
 FUELS USED _____
 BLAST HOLES LINE HOLES SPACING _____
 TYPE OF DYNAMITE _____
 TYPE OF WIRE _____
 TYPE OF ROCK _____

REMARKS ON PRODUCTION OR CONDITIONS: _____

SUPERINTENDENT: _____ DATE: _____

DRILL LOG AND BLAST REPORT

CONTRACT NO.:
NAME OF DRILL BOAT:

DATE:
BLAST NO.:

FOR THIS BLAST

2 - HOUR WARNING	LBS./HOLE
15 - MINUTE WARNING	LBS./DELAY
5 - MINUTE WARNING	LBS./BLAST
BLAST TIME	TOT. HOLES
REAL DISTANCE	L.F. MAX. POWDER/DELAY
TYPE OF POWDER =	

FOR THIS RANGE

	<u>MIN.</u>	<u>MAX.</u>		START	STOP
DEPTH				DRILL TIME	
SPACING				LOADED	
NO. OF HOLES				FIRE	
HOLE DIAMETER					
TOTAL ROCK DRILLED =		LF.	TOTAL POWDER LOADED=		POUNDS

CONTACT SEISMIC @

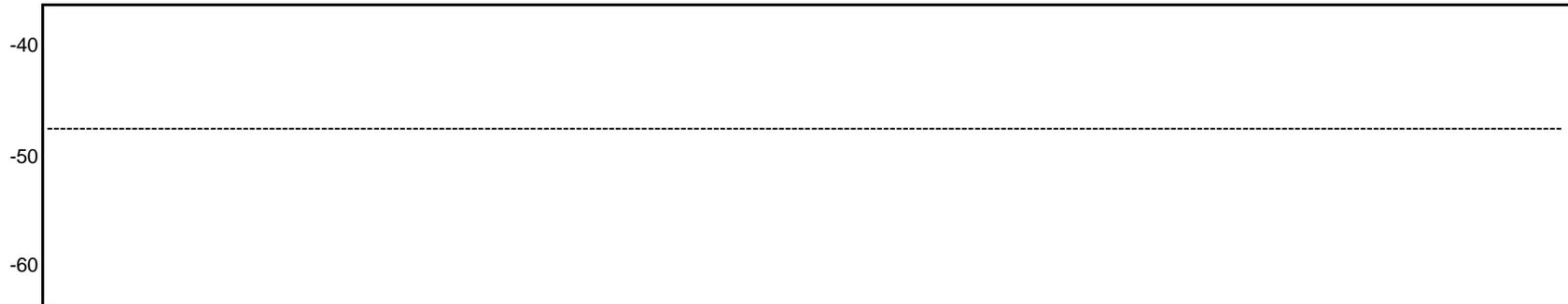
HOLE NO.	START	STOP	STATION NO.	TIDE ELV.	DEPTH TO ROCK	T.C. TOP OF ROCK	T.C. OVER ROCK	ROCK TO -47 MLW	*TOTAL ROCK	IN HOLE DELAYS		BOOSTERS	SURFACE DELAYS		LOADED POUNDS
										NO.	TYPES		NO.	TYPES	
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															

00901 - 4

* Includes Subdrill

TC = Tide Correction

CROSS SECTION



STA. NO.

————— ROCK ELEV.

* OVERBURDEN

SUPERINTENDENT: _____

DATE: _____

USACE TRANSPORTATION AND PLACEMENT LOG

Log Number: Date (yy:mm:dd)

Project Information:

Trip Number:	Tow Owner:
Permit Number:	Inspector's Name:
Project Name:	Tug's Navigational Unit:

Tug and Scow Information:

Tug Name:	Scow Name/Number:
Tug Captain:	Scowman's Name:

Loading Information:

Volume of Material (Cubic yds):	Scow Draft Forward (ft):
Time Loading is Complete (hh:mm:ss):	Scow Draft Aft (ft):
Description of material:	Percent Rock:

Placement Site Weather Conditions:

Wind Direction (from):	Wind Speed (mph):
Weather conditions:	Wave Swell Height (ft):
Observed Water Depth (ft):	
Visibility (n miles):	
Marine Mammals/Sea Turtles Sighted (Yes/No):	

Transit/Placement Information Area:	Tug Position Determined By (GPS/DGPS) DGPS
Approximate Distance from Scow to Target Area at Time of Discharge (ft)	
Time Scow Arrives at Project Placement Area:	
Length of Towline at Time of Discharge (ft):	
Scow Heading (Degrees):	Estimated Scow Speed (kts):
Distance from Tug Navigational Antenna to Tugs Towing Bit (ft):	
Direction of Scow Relative to Tugs Towing Bit (Degrees):	

Start Time (DOORS OPEN)

Tug Speed (kts):			
Tug Heading (Degrees):	GPS/DGPS: Latitude:		Longitude:

End Time (DOORS OPEN)

Tug Speed (kts):			
Tug Heading (Degrees):	GPS/DGPS: Latitude:		Longitude:

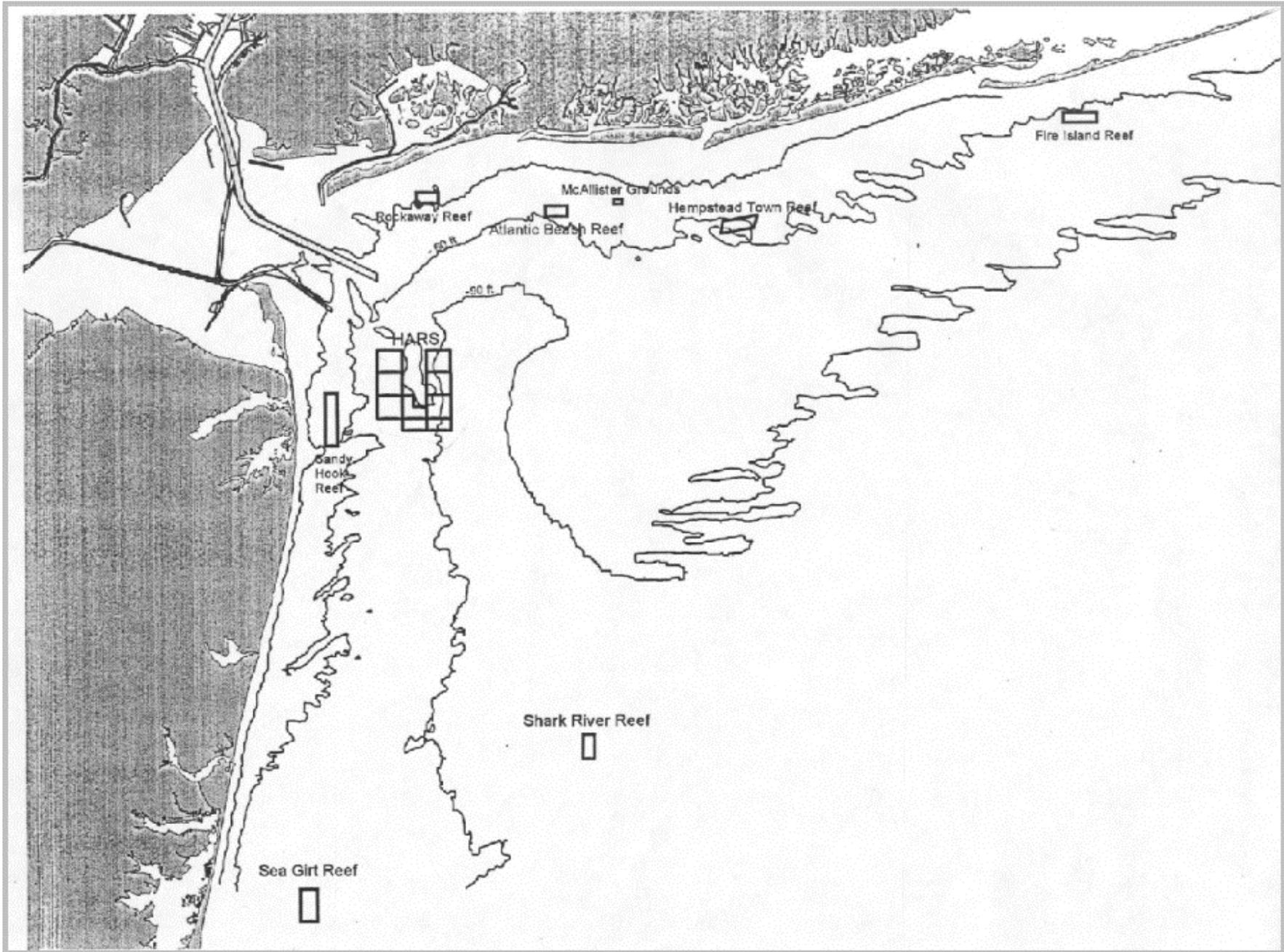
Post Placement Time (DOORS OPEN)

Tug Speed (kts):			
Tug Heading (Degrees):	GPS/DGPS: Latitude:		Longitude:

Comments:

SECTION 00903

**DEWATERING INSTRUCTIONS
SHARK RIVER MAP**



SECTION 00903

FEDERAL CONSISTENCY DETERMINATION/WATER QUALITY
CERTIFICATIONS

Attach ment to WQC NJ 0000-92-0031.7
00903-ii

-----Original Message-----

From: Larry Baier [mailto:Larry.Baier@dep.state.nj.us]
Sent: Tuesday, September 17, 2002 8:19 AM
To: Wakeman, Thomas; Joesph.J.Seebode@usace.army.mil
Cc: Jennifer Sliko; Larry Baier; Richard DeWan; Suzanne Dietrick;
rick.gimello@dot.state.nj.us
Subject: Re: Arthur Kill Contract No. 1 Placement

Dear Tom and Joe:

Please accept this e-mail in lieu of a formal letter regarding the disposition of material to be excavated from Arthur Kill 40-41 foot deepening Contract Areas 1A and 1B. For the record, I have reviewed the sediment data submitted by the Port Authority for these contract areas. With regard to the unconsolidated Holocene sediment, (black mud), the analytical data shows that the majority of the material is suitable for placement at the OENJC-Bayonne site and will likely be acceptable for placement at EnCap once that site is approved. The only exception is in Area 1B, Composite C, (which in actuality is a discrete location #8 in acceptance area D). That area showed concentrations of 4,4' DDD and 4,4' DDT at levels exceeding the placement criteria established for OENJC-Bayonne. Based on this data, the materail excavated from between stations 170+00 A and 165+00 A on the western half of the channel may need to be deposited in the NBCDF since there are no upland alternatives. However, based on the number of attempts to recover material from this area (23) there may be very little material to be managed. Should the Port Authority desire to pursue an alternate acceptance criteria for this material at an upland site we would entertain that request, but there are no guarantees. I also note that the Port Authority is asking the lab to review the data since it appears to be anomolous.

Regarding the Pleistocene Till, the State of New Jersey is in agrerement with the strategy put forward by the Port Atuthority to test this material for possible placement at the HARS. Should this material fail HARS testing, the material should be offered for upland placement. It is hoped that enough information can be gathered during HARS sampling and testing (particularly regarding the physical character of this material) to solicit upland placement interest. However, should upland interest be lacking, the State of New Jersey would agree to place this material in the NBCDF. Such testing for HARS placement and upland solicitation would meet the eligibility requirements for placement in the NBCDF. Therefore, we do not object to the issuance of an invitation for bids for this contract at the present time subject to the caveats expressed herein. It should also be noted that the majority of the data on the Pleistocene material, with the possible exception of Composite X in Area 1A (PCBs), shows that this material can be used in most upland applications as a raw material and does not need to be amended. A closer examination of Composite X is needed before making a final determination regarding this material. I should also note that in exchange for allowing this project to come to New Jersey, which largely benefits New York's Howland Hook Container

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Terminal, the Department asks that New York find and implement a strategy that would find an upland placement site for the U.S. Gypsum project. Failure to do so will require a decision by the U.S. Army Corps of Engineers on the HARS placement of that material. whether that determination is affirmative or negative, it will more than likely result in litigation that would result in uncertainty regarding the future placement options for dredged material in the Harbor as a whole. This situation would mimic the unfortunate circumstances of 1993 through 1996, a time affectionately known as "mud lock" in the region. Such a situation would be damaging to the economies of both the Stte of New Jersey and the State of New York and would not serve the interest of the public that we all serve.

If you have questions, please do not hesitate to contact me.

Sincerely,

Lawrence J. Baier, Chief
Office of Dredging and Sediment Technology



State of New Jersey

Department of Environmental Protection

Christine Todd Whitman
Governor

Robert C. Shinn, Jr.
Commissioner

Site Remediation Program
Office of Dredging and Sediment Technology
P.O. Box 028
Trenton, NJ 08625
(609) 292-1250
FAX (609) 777-1914

October 5, 2000

Mr. Frank Santomauro, P.E., Chief
Planning Division
Army Corps of Engineers, New York District
Jacob K. Javits Federal Building
New York, New York 10278-0090

RE: Federal Consistency Determination / Water Quality Certificate
File No.: 0000-92-0031.7
Arthur Kill Channel – Howland Hook Deepening to –41 feet

Dear Mr. Santomauro:

This letter is in response to two separate communications forwarded to this Office regarding the Arthur Kill to Howland Hook –41 Deepening Project. The communications with this Office entailed a letter received on September 7, 2000 from the Environmental Branch concerning the proposed mitigation for this project, and sediment sampling and test results for Contract Area 1 forwarded by the Port Authority of New York and New Jersey.

This letter shall serve to clarify that the mitigation plan proposed by the Corps titled, "FINAL MITIGATION PLAN ARTHUR KILL CHANNEL – HOWLAND HOOK MARINE TERMINAL DEEPENING PROJECT, 40/41 PLAN," prepared by Northern Ecological Associates, Inc. and dated March 31, 2000, is consistent with the Rules on Coastal Zone Management (N.J.A.C. 7:7E) and New Jersey's federally approved coastal zone management program. Consequently, this mitigation plan is considered to be approved under Federal Consistency Determination 0000-92-0031.7 issued for this project on November 23, 1998. The Department anticipates a close working relationship with the Corps as the design of the Rahway River mitigation site is finalized and construction initiated.

I have also taken the opportunity to review the analytical data package submitted by the Port Authority for Contract Area 1 of this project. Sampling and testing of this material was accomplished in accordance with guidance provided by this Office in a letter dated February 1, 2000 as modified during a telephone conversation on or about May 4, 2000. This material has been tested for upland placement at either the OENJC-Bayonne site or the Koppers Seaboard site in Kearny. Based on the analytical results, I have concluded that the material to be dredged from Contract Area 1 meets the placement

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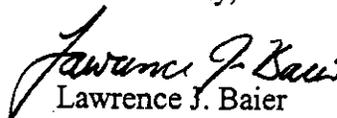
criteria for both sites. However, at the present time the Koppers seaboard site in Kearny is inactive.

Please be further advised that the discharge of decant water is not authorized at the OENJC – Bayonne site (see Physical Condition 9 of Waterfront Development Permit 0901-92-0005.3). Any excess water in the dredged material must be either decanted at the dredging site prior to transport to the OENJC – Bayonne site or must be transported back to the dredging site and discharged under a Water Quality Certificate or other appropriate approval issued by the New York State Department of Environmental Conservation.

The Department cannot find disposal of the dredged material in the Newark Bay Confined Disposal Facility consistent with the Rules on Coastal Zone Management at the present time. N.J.A.C. 7:7E-4.2(h) (Standards relevant to the Disposal of Dredged Material in Water), provide for in water disposal only after consideration has been given to alternate placement sites and methods, which are less damaging to the environment. Based on the information provided and otherwise available to the Department, opportunity exists for the upland placement of this material at the OENJC – Bayonne site. Consequently, subaqueous disposal of the material from contract Area 1 in the Newark Bay Confined Disposal Facility has not been demonstrated to be consistent with New Jersey's approved Coastal Zone Management Program.

Should you have any questions regarding this letter please do not hesitate to contact me at (609) 292-8838.

Sincerely,


Lawrence J. Baier

Chief

Office of Dredging and Sediment Technology

- C: Beverly Fedorko, NJDEP Commissioner's Office
Richard Gimello, Executive Director, New Jersey Maritime Resources
Leonard Houston, Chief, Environmental Branch, USACOE, NY District
John Bullard, Chief, Chemical Env. Testing, Port Authority of New York and New Jersey
Bernice Malione, Supervisor, Permits and Governmental Approvals, Port Authority of NY and NJ

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State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection
Site Remediation Program
Office of Dredging and Sediment Technology
P.O. Box 028
Trenton, NJ 08625
(609) 292-1250
FAX (609) 777-1914

Robert C. Shinn, Jr.
Commissioner

November 23, 1998

Mr. Frank Santomauro, P.E., Chief
Planning Division
Department of the Army
New York District, Corps of Engineers
Jacob K. Javits Building
Federal Building
New York, New York 10278-0090

RE: Federal Consistency Determination / Water Quality Certification
File: 0000-92-0031.7
Project: Arthur Kill Channel - Howland Hook Deepening Project

Dear Mr. Santomauro:

The Office of Dredging and Sediment Technology received your request for a Federal Consistency Determination, as required by Section 307 of the Federal Coastal Zone Management Act, for the Arthur Kill Channel-Howland Hook Marine Terminal Deepening Project on September 24, 1998. The target date for a decision on the federal consistency determination was extended to November 23, 1998 to allow additional time for the New York District Army Corps of Engineers (NYDCOE) to review and respond to the Department's October 6, 1998 letter. The NYDCOE concurrence was received by the Office of Dredging and Sediment Technology on November 20, 1998.

The project involves deepening the existing Arthur Kill Channel to -41 ft MLW plus 2 feet allowable overdepth from its confluence with Kill Van Kull Channel and Newark Bay down to the Howland Hook Marine Terminal (approximately 2 miles); and to 40 feet plus 2 feet of overdredge from the Howland Hook Marine Terminal to the Tesco and GATX oil facilities in Linden (approximately 1 mile). Approximately 3.25 million cubic yards (MCY) of material will be dredged for this project. Of that total, .8 MCY is expected to be rock, .35 MCY is expected to be clean unconsolidated deposits and 2.1 MCY is expected to be contaminated material.

As a result of meetings held between the Department and NYDCOE, an agreement was reached that the NYDCOE could apply for federal consistency determinations for dredging projects prior to furnishing sediment sampling results. As part of the federal consistency request, the NYDCOE agreed to submit a schedule for the submission of a sampling plan, the identification of a disposal site and the submission of sampling and testing results to the Department for review and approval prior to the initiation of dredging. This procedure was deemed necessary due to conflicts with the NYDCOE's sampling requirements for dredging project. The following schedule was submitted to the NYDCOE in a letter dated October 6, 1998 and received concurrence by the NYDCOE in their November 20, 1998 letter.

At least 90 days prior to the anticipated dredging start date, the Corps shall identify the dredge material disposal or reuse site(s), provide bathymetry (not more than 6 months old) and request a sampling plan. The Department shall issue the sampling and testing plan within 30 days of receipt, and shall attempt to coordinate that sampling plan with New York State Department of Environmental Conservation (NYSDEC). Note this time frame is based upon a 30 day testing time. If the required analysis takes more than 30 days, then the lead-time must be increased accordingly.

At least 30 days prior to the anticipated dredging start date; the Corps shall provide the sediment testing results to the Department for review and approval. The Corps agrees that dredging will only commence upon receipt of the Department's approval of the material reuse or disposal site.

The Rules on Coastal Zone Management (N.J.A.C. 7:7E) constitute New Jersey's enforceable policies under its federally approved Coastal Zone Management Program. The Arthur Kill Channel - Howland Hook Federal Navigation Deepening Project has been reviewed under the following Rules on Coastal Zone Management: Navigation Channels (7:7E-3.7), Ports (7:7E-3.11), Intertidal and Subtidal Shallows (7:7E-3.12), Wetlands (7:7E-3.27), Historic and Archaeological Resources (7:7E-3.36), New Dredging (7:7E-4.2(g)), and Water Quality (7:7-8.4). Based on the above summary of details of the project as presented in the December 1997 Limited Final Reevaluation Report and Final Supplemental Environmental Impact Statement (December 1997), and the commitments made by the NYDCOE in their November 20, 1998 letter, to submit updated bathymetry surveys and sampling results for the project for review and approval by the Department; I have determined that the Arthur Kill Channel - Howland Hook Deepening Project is consistent with the Rules on Coastal Zone Management and New Jersey's federally approved Coastal Management Program.

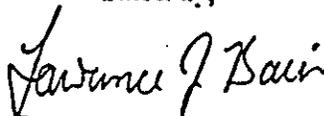
I have also reviewed this project for potential water quality impacts. Provided that the following conditions are met, I have determined that the project is not likely to cause a violation of New Jersey's Surface Water Quality Standards (N.J.A.C. 7:27-1.1 et seq.). Therefore, this determination includes the State's Water Quality Certification pursuant to Section 401 of the federal Water Pollution Control Act (33 USC 1251 et seq.) subject to the following conditions:

1. A "No barge overflow" condition applies to the dredging and transport of any contaminated dredged material.
2. All dredging of contaminated fine grained material shall be accomplished using a closed clam shell "environmental" bucket dredge.
3. Dredged material shall be placed deliberately in the barge in order to prevent spillage of material overboard.
4. The dredge shall be operated so as to maximize the bite of the clamshell. This will reduce the amount of free water in the dredged material and the number of bites required to complete the job.

5. The clamshell shall be lifted slowly through the water column, generally 2 feet per second or less.
6. All barges or scows used to transport sediment shall be of solid hull construction or be sealed with concrete, except for material permitted for subsequent disposal.
7. The gunwales of the dredge scows shall not be rinsed or hosed during dredging.

Should you have any questions in this regard, please do not hesitate to contact me at (609) 292-8838.

Sincerely,



Lawrence J. Bair, Chief
Office of Dredging and Technology
Site Remediation Program

C: Joel Pecchioli, Office of Program Coordination
Frank McDonough, NJ Department of Commerce
Beverly Fedorko, Special Assistant to the Commissioner

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New York State Department of Environmental Conservation
Division of Environmental Permits, Region 2
47-40 21ST Street, Long Island City, NY 11101-5407
Phone: (718) 482-4078 • FAX: (718) 482-4975
Website: www.dec.state.ny.us



May 10, 2001

Mark F. Lulka, Project Biologist
Planning Division - Environmental Branch
CENAN-PI-EA
US Army Corps of Engineers, New York District
26 Federal Plaza
New York, NY 10278-0090

Re: DEC No. 2-6499-00001/00002
Arthur Kill - Howland Hook 40'/41' Deepening Project
Amendment to Water Quality Cert Language

Dear Mr. Lulka:

This letter amends language in the above referenced Water Quality Cert. The following special conditions are changed as follows:

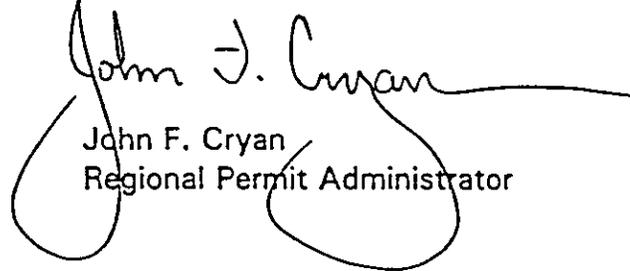
1. Special Condition 24 - Mitigation activities shall begin prior to, or concurrently with, commencement of dredging or blasting activity. At least sixty days prior to commencement of the project, the Permittee shall provide final details of the mitigation activities, including access points, haul roads, and erosion controls. Mitigation activities for the purpose of this Water Quality Cert include preliminary plans and specifications drafting, however, actual mitigation construction shall begin no later than the start of dredging/blasting for phase 2 of this project.
2. Special Condition 25.c - Mitigation site monitoring. As discussed in the Final Mitigation Plan dated March 31, 2000, the final monitoring plan shall be modified to incorporate components of the New York State Salt Marsh Restoration and Monitoring Guidelines. Within 30 days of the effective date of this WQ Cert, Army Corps staff shall meet with Program staff to discuss the necessary modifications.

00913-6

3. Special Condition 27 - The attached "Notice of Intent to Commence Work" must be submitted to the DEC for each Contract Reach (1-4) at the start of work and upon any resumption of work after more than six months of inactivity. At the completion of the work allowed by this permit the attached "Notice of Completion of Work" is to be submitted..

Should you have any questions, please feel free to contact Kathryn D. McGuckin at the above address and phone.

Sincerely,

A handwritten signature in black ink that reads "John F. Cryan". The signature is fluid and cursive, with a long horizontal line extending to the right. Below the signature, the name and title are printed in a standard font.

John F. Cryan
Regional Permit Administrator

Attachments:

Notice of Intent to Commence Work
Notice of Completion of Work

CC: S. Zahn, DEC Region 2 Marine Resources
K.D. McGuckin, DEC Region 2 Environmental Permits
DEC Region 2 Division of Law Enforcement

00903-7

NOTICE OF INTENT TO COMMENCE WORK

Date: _____

New York State
Department of Environmental Conservation
Division of Environmental Permits
47-40 21st Street
Long Island City, NY 11101
Attn: Kathryn D. McGuckin Fax: 718-482-4975

Re: DEC Permit No. 2-6499-00001/00002

Dear Ms. McGuckin:

I hereby serve notice to commence/recommence work on the Contract Reach ____ of the referenced project on or about _____, 200__.

This is also to certify that having read the permit, in entirety, I am fully aware of and understand the general and special conditions and agree to comply in all respects to those requirements. I further understand that prior to undertaking any modification to the authorized project, I must seek and receive approval of the Regional Permit Administrator.

Very truly yours,

Signature of the Permittee

Signature of the Contractor (if any)

Permittee's Name (Printed)

Contractor's Name (Printed)

Permittee's Address:

Contractor's Address:

Telephone #

Telephone #

NOTICE

The permittee and his contractor (if any) are required to follow all permit conditions. Violations of the permit may lead to legal action, including the imposition of substantial monetary fines and corrective work.

00903-0

NOTICE OF COMPLETION OF WORK

Date: _____

New York State
Department of Environmental Conservation
Division of Environmental Permits
47-40 21st Street
Long Island City, NY 11101
Attn: Kathryn D. McGuckin FAX: 718-482-4975

Re: DEC Permit No. 2-6499-00001/00002

Dear Ms. McGuckin:

I hereby serve notice that all work allowed by the above referenced permit has been completed as of _____, 200__.

Very truly yours,

Signature of the Permittee

Signature of the Contractor (if any)

Permittee's Name (Printed)

Contractor's Name (Printed)

Permittee's Address: _____

Contractor's Address: _____

Telephone # _____

Telephone # _____

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New York State Department of Environmental Conservation

Division of Environmental Permits, Region 2

47-40 21ST Street, Long Island City, NY 11101-5407

Phone: (718) 482-4997 • FAX: (718) 482-4975

Website: www.dec.state.ny.us



Mike Millard, Project Manager
Mark F. Lulka, Project Planner
US Army Corps of Engineers, Planning Division
26 Federal Plaza
New York, NY 10278-0090

April 20, 2001

Re: DEC Permit No. 2-6499-00001/00002
USACOE -- Arthur Kill - Howland Hook 40'/41' Deepening Project
6 NYCRR Part 608 Water Quality Certification
NOTICE OF PERMIT ISSUANCE

Dear Messrs. Millard and Lulka:

Enclosed is your permit for the Arthur Kill - Howland Hook 40'/41' Deepening Project. Please read all conditions carefully and be sure to notify DEC promptly if you change any of the project plans. Please also provide copies of this permit to all employees, contractors and agents performing any part of the permitted work.

This water quality certificate and its conditions were a result of a concerted effort by all involved parties to protect natural resources while allowing for timely completion of the project. Please make this document available to all bidders in color so there is no confusion about the locations of areas with restricted dredging windows. Please notify DEC of all pre-construction meetings, as Department staff would like to attend. Also, please insure that the copy of this permit kept at the site is a color copy; extra color copies have been enclosed for this purpose.

The corps mentioned in meetings on April 3rd and 6th that there is a "no float" in Contract Area 1A and that a one-week slip in the start date or execution of Contract Area 1A will increase the schedule by five months. At this time, based on the information at hand, the Department does not foresee the possibility of further adjustments to the dredging windows. Therefore, the Department requests the Corps to prepare contingency plans for completing the work in Contract Area 1A should the start date or execution of Contract Area 1A be delayed.

Please note that Special Condition No. 27 requires the Department to be notified in writing of the start of work, any resumption of work after more than six months of inactivity, and upon completion of work for each contract reach (Nos. 1 through 4).

If you have any questions, please contact Kathryn D. McGuckin at the above address, or by telephone at (718) 482-4078.

Very truly yours,


John F. Cryan
Regional Permit Administrator

cc: Capt. T. Revella
S. Zahn

A:\PermitLtr.wpd

00903-10

DEC PERMIT NUMBER 2-6499-00001/00002
FACILITY/PROGRAM NUMBER(S) USACE Arthur Kill 40'/41' Deepening



PERMIT
Under the Environmental Conservation
Law (ECL)

EFFECTIVE DATE April 20, 2001
EXPIRATION DATE(S) April 20, 2006

TYPE OF PERMIT New Renewal Modification Permit to Construct Permit to Operate

- | | | |
|--|---|--|
| <input type="checkbox"/> Article 15, Title 5: Protection of Waters | <input checked="" type="checkbox"/> 6NYCRR 608: Water Quality Certification | <input type="checkbox"/> Article 27, Title 7; 6NYCRR 360: Solid Waste Management |
| <input type="checkbox"/> Article 15, Title 15: Water Supply | <input type="checkbox"/> Article 17, Titles 7, 8: SPDES | <input type="checkbox"/> Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management |
| <input type="checkbox"/> Article 15, Title 15: Water Transport | <input type="checkbox"/> Article 19: Air Pollution Control | <input type="checkbox"/> Article 34: Coastal Erosion Management |
| <input type="checkbox"/> Article 15, Title 15: Long Island Wells | <input type="checkbox"/> Article 24: Freshwater Wetlands | <input type="checkbox"/> Article 36: Floodplain Management |
| | <input type="checkbox"/> Article 25: Tidal Wetlands | |

PERMIT ISSUED TO US ARMY CORPS OF ENGINEERS		TELEPHONE NUMBER (718) 760-6617
ADDRESS OF PERMITTEE JACOB K. JAVITS FEDERAL BUILDING, NEW YORK, NY 10278-0090		
CONTACT PERSON FOR PERMITTED WORK MIKE MILLARD - PROJECT MANAGER OR MARK F. LULKA - PROJECT PLANNER		TELEPHONE NUMBER (212) 264-2054 (212) 264-5818
NAME AND ADDRESS OF PROJECT/FACILITY ARTHUR KILL HOWLAND HOOK MARINE TERMINAL 41'/40' DEEPENING		
LOCATION OF PROJECT/FACILITY NORTH AND WEST SHORE OF STATEN ISLAND FROM THE CONFLUENCE WITH THE KILL VAN KULL TO THE TOSCO REFINERY.		
COUNTY RICHMOND	CITY NEW YORK CITY	WATERCOURSE ARTHUR KILL
		NYTM COORDINATES E 567.0 N 4492.0
DESCRIPTION OF AUTHORIZED ACTIVITY: Deepening and navigational improvements to the Arthur Kill/Howland Hook Channel - from 35 feet to 40 feet from GATX to Howland Hook Terminal; and, from 35 feet to 41 feet between Howland Hook and the confluence with the Kill Van Kull. Approximately 3.25 million cubic yards of sediment, rock and clay must be removed by dredging and blasting.		

By acceptance of this permit, the Permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (see page 2) and any Special Conditions included as part of this permit.

REGIONAL PERMIT ADMINISTRATOR: John F. Cryan	ADDRESS 47-40 21 Street Long Island City, NY 11101
AUTHORIZED SIGNATURE <i>John F. Cryan</i>	DATE April 20, 2001
Page 1 of 6	

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee has accepted expressly, by the execution of the application, the full legal responsibility for all damages and costs, direct or indirect, of whatever nature and by whomever suffered, for liability it incurs resulting from activity conducted pursuant to this permit or in noncompliance with this permit and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from such activity.

Item B: Permittee to Require it's Contractors to Comply with Permit

The permittee shall require its independent contractors, employees, agents and assigns to read, understand and comply with this permit, including all special conditions, and such persons shall be subject to the same sanctions for violations of this permit as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required for this project.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

GENERAL CONDITIONS

General Condition 1: Facility Inspection by the Department

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when written or verbal notification is provided by the Department at least 24 hours prior to such inspection.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

General Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

General Condition 3: Request for Permit Renewals or Modifications

The permittee must submit a separate written request to the Department for renewal, modification or transfer of this permit. Such request must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

The permittee must submit a renewal request at least:

- a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and
- b) 30 days before expiration of all other permit types.

Request for permit renewal or modification are to be submitted to:

NYSDEC, Regional Permit Administrator, Region 2
47-40 21ST Street, Long Island City, NY 11101

General Condition 4: Permit Modifications, Suspensions and Revocations by the Department

The Department reserves the right to modify, suspend or revoke this permit when:

- a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
- b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
- c) new material information is discovered; or
- d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

DEC PERMIT NUMBER 2-6499-00001/00002	PROGRAM/FACILITY NUMBER USACE Arthur Kill 40'/41' Deepening	PAGE <u>2</u> OF <u>6</u>
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ADDITIONAL GENERAL CONDITIONS FOR ARTICLES 15,17, 24, 25, and 6 NYCRR Part 608

- 5: That if future operations by the State of New York require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Department of Environmental Conservation it shall cause unreasonable obstruction to the free navigation of said waters or flood flows or endanger the health, safety or welfare of the people of the State, or cause loss or destruction of the natural resources of the State, the owner may be ordered by the Department to remove or alter the structural work, obstructions, or hazards caused thereby without expense to the State, and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners, shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable and flood capacity of the watercourse. No claim shall be made against the State of New York on account of any such removal or alteration.
- 6: That the State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.
- 7: Granting of this permit does not relieve the applicant of the responsibility of obtaining any other permission, or approval from the U.S. Army Corps of Engineers, U.S. Coast Guard, New York State Office of General Services, or local government which may be required.
- 8: All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate, or any other environmentally deleterious materials associated with the project
- 9: Any material dredged in the conduct of the work herein permitted shall be removed evenly, without leaving large refuse piles, ridges across the bed of a waterway or floodplain or deep holes that may have a tendency to cause damage to navigable channels or to the banks of a waterway.
- 10: There shall be no unreasonable interference with navigation by the work herein authorized.
- 11: If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.
- 12: If granted under Article 36, this permit does not signify in any way that the project will be free from flooding.
- 13: If granted under 6 NYCRR Part 608, the NYS Department of Environmental Conservation hereby certifies that the subject project will not contravene effluent limitations or other limitations or standards under Sections 301, 302, 303, 306, and 307 of the Clean Water Act of 1977 (PL 95-217) provided that all of the conditions listed herein are met.

DEC PERMIT NUMBER 2-6499-00001/00002	PROGRAM/FACILITY NUMBER USACE Arthur Kill 40'/41' Deepening	PAGE <u>3</u> OF <u>6</u>
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPECIAL CONDITIONS

- 14: Dredging and construction shall be performed according to the following documents:
- a. Final Mitigation Plan for Arthur Kill - Howland Hook Marine Terminal Deepening Project, 40/41 Plan, dated March 31, 2000.
 - b. Final Limited Reevaluation Report and Final Supplemental Environmental Impact Statement - Arthur Kill - Howland Hook Marine Terminal, dated December 1997.
 - c. Draft FONSI/Draft EA for the Selection of Potential Dredged Material Placement Sites- Arthur Kill - Howland Hook Marine Terminal, dated January 2000.
- 15: A bathymetric survey (no more than 6 months old) for each contract reach shall be provided to DEC at least sixty (60) days prior to the anticipated dredging start date for a given reach. A post dredge survey shall be submitted to DEC within ninety (90) days of the completion of dredging for each contract reach.
- 16: Design drawings indicating the sediment type and volume to be dredged within each contract reach shall be provided to DEC at least 90 days prior to the anticipated dredging start date for a given reach.
- 17: A sediment sampling plan for purposes of conducting bulk sediment chemistry analysis for each contract reach shall be submitted for DEC approval in coordination with the state of New Jersey at least 60 days prior to the anticipated dredging start date for a given reach.
- 18: Sediment test results shall be submitted at least 30 days prior to the anticipated dredging start date of any project contract reach to verify the applicability of the restrictions stated in Special Condition #22.
- 19: At least thirty days prior to the start of dredging, the Permittee shall identify the disposal location(s) for each type of material to be dredged, and submit this information to the Department in writing.
- 20: Between 1 April and the end of the first week of May, a qualified biologist, selected by the Permittee and agreed upon by the Department, shall inspect Shooter's Island for the presence of nesting activity by herons or egrets. This inspection shall be conducted once each year that dredging/blasting is expected to occur within 1,000 feet of Shooter's Island. Upon completion of the inspection, Permittee shall submit a written inspection report to Dawn McReynolds at the NYS DEC Region 2 office.
- a. If no active nests are observed, avian protective measures will not be required.
 - b. If nesting is confirmed, the following protective measures shall be implemented:
 - i. No blasting and/or dredging activity shall occur within 1,000 feet of Shooter's Island from 1 April - 31 July.
 - ii. The Permittee shall use marker buoys every 200 feet or less (except within the existing federal channel) to indicate the 1,000 foot restricted area.
- 21: A certified Army Corps of Engineers inspector shall monitor project operations regularly, and is responsible for ensuring that the project is being conducted in compliance with Special Conditions 22 and 23 of this Water Quality Certificate.

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

- 22: To protect winter flounder, dredging and blasting is limited as follows in the 'areas of concern' depicted in green on the attached Appendix 1 map.
- a. Dredging of silt is prohibited in the areas of concern between 01 February and 31 May.
 - b. Dredging and blasting of non-silt material is prohibited in the areas of concern between 01 March and 31 May.
- 23: An 'environmental bucket' is required for dredging silt and/or other fine-grained unconsolidated material. Drawings and performance specifications of the environmental bucket must be provided to the Department 15 days prior to the anticipated start date of dredging.
- a. The following bucket specifications are required:
 - i. The bucket shall be constructed with sealing gaskets or overlapping sealed design at the jaws, and seals or flaps positioned at locations of vent openings to minimize the loss of material during transport through the water column and into the barge.
 - ii. Any seals or flaps designed and/or installed at the jaws and locations of vent openings must tightly cover these openings while the bucket is lifted through the water column and into the barge. If excessive loss of water and/or sediments from the bucket is observed from the time of its breaking the water surface to crossing the barge gunwale, the inspector shall halt dredging operations and inspect the bucket for defects. Operations shall be suspended until all necessary repairs or replacements are made.
 - b. Bucket hoist speed shall be limited to approximately 2 feet per second. The bucket shall be lifted in a continuous motion through the water column and into the barge.
 - c. The bucket shall be lowered to the level of the barge gunwales prior to the release of load.
 - d. There shall be no barge overflow when dredging silt and/or other fine-grained unconsolidated material.
- 24: Mitigation activities shall begin prior to, or concurrently with, commencement of dredging or blasting activity. At least sixty days prior to commencement of the project, the Permittee shall provide final details of the mitigation activities, including access points, haul roads, and erosion controls.
- 25: At least sixty days prior to the commencement of the project, the Permittee shall consult with DEC staff on development of the following required monitoring programs:
- a. An analysis of vessel-generated wake impacts on shoreline erosion. Said analysis shall include an assessment of pre- and post-construction shoreline conditions and wake environment in the project area.
 - b. Impacts to benthic habitat. A pre- and post-construction assessment of benthic habitat and benthic utilization of the deepened areas of the channel. Said analysis shall include physical characterization

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

of bottom substrate, a description of the benthic community, and an assessment of Winter Flounder spawning activity and Blue Crab overwintering activity.

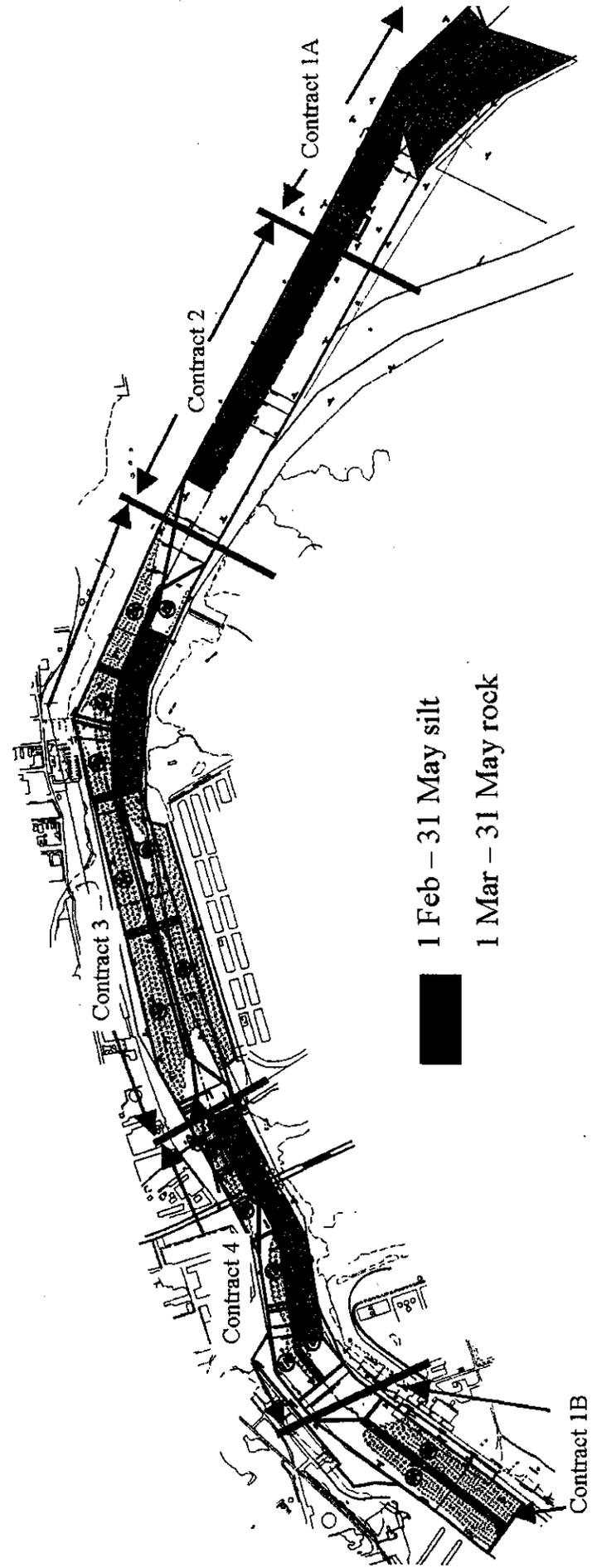
- c. Mitigation site monitoring. As discussed in the Final Mitigation Plan dated May 19, 2000, the final monitoring plan shall be modified to incorporate components of the New York State Salt Marsh Restoration and Monitoring Guidelines. Within 30 days of the effective date of this WQ Cert, Army Corps staff shall meet with Program staff to discuss the necessary modifications.
- 26: Item A and General Condition 6 are included by the State of New York as the permit issuing authority under the Clean Water Act. Such conditions do not, nor are they intended to, apply to, abrogate, or annul any obligation, responsibility or liability on the part of the Port Authority of New York and New Jersey to the Federal Government under the terms of a Project Cooperation Agreement (PCA) entered into by those two agencies for the Arthur Kill-Howland Hook Terminal, New York and New Jersey Project. Pursuant to that PCA, the Port Authority of New York and New Jersey remains legally responsible to hold and save the Federal Government free from all damages arising from the construction, operation, and maintenance of the Project and the local service facilities, and if the Port Authority requests such, for any Project-related betterments, including liabilities arising from Item A and General Condition 6, except for damages due to the fault or negligence of the Federal Government or its contractors. No provision of this permit shall be deemed to supercede applicable federal law with regard to appropriation of funds or liability for damages caused by the Army Corps or its agents or other representatives.
- 27: Notification in writing to the DEC for each Contract Reach (1-4) is to be given at the start of work, upon any resumption of work after more than six months of inactivity, and the completion of work allowed by this permit.

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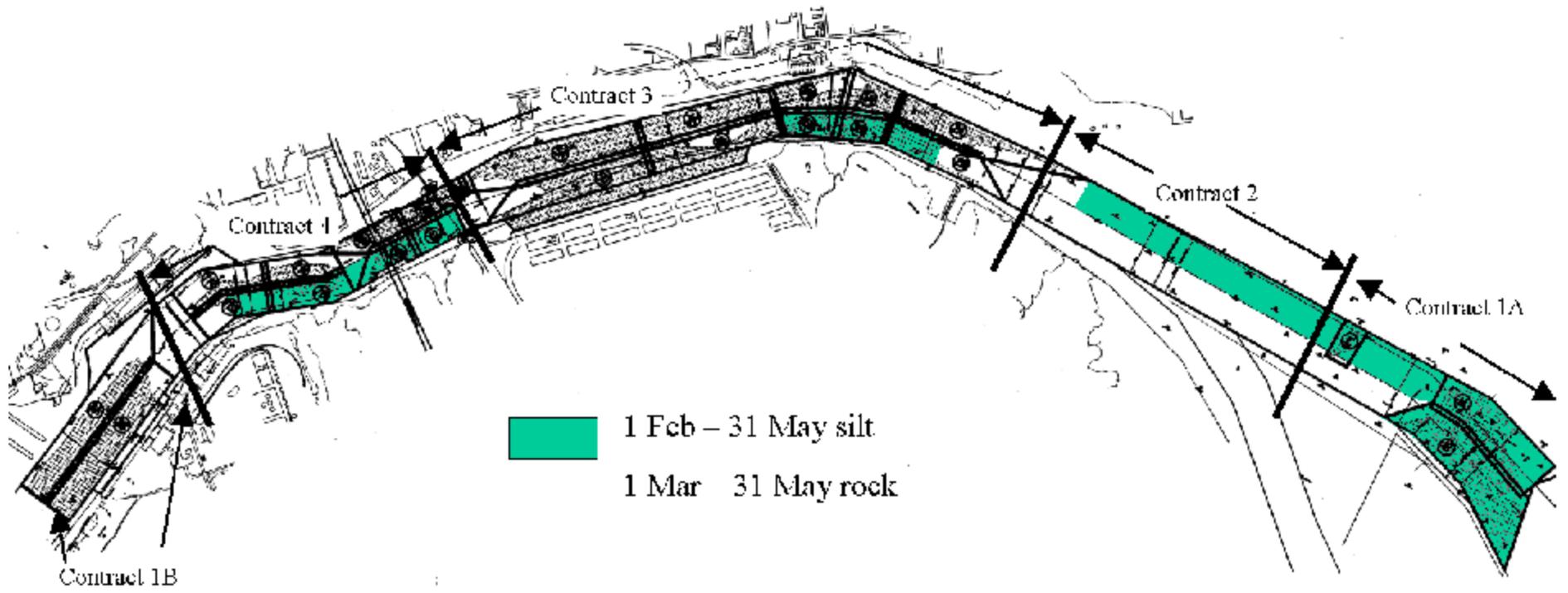
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Appendix 1
DEC Permit Number 2-6499-00001/00002



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DEPARTMENT OF STATE

George E. Pataki
Governor
Alexander F. Treadwell
Secretary of State

Division of
Coastal Resources
41 State Street
Albany, NY 12231-0001

May 4, 1999

Frank Santamauro, Chief
Planning Section, New York District
U.S. Army Corps of Engineers
26 Federal Plaza
New York, NY 10278-0090

Re: F-99-237
COE/NY - Arthur Kill Channel-Howland Hook Marine
Terminal, Richmond/NYC

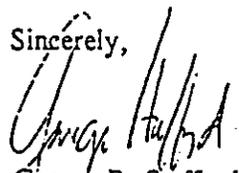
Dear Mr. Santamauro:

The Department of State has completed its review of the U.S. Army Corps of Engineers consistency determination with respect to the New York State Coastal Management Program, together with supporting documentation, for the proposed deepening and navigational improvements to the Arthur Kill/Howland Hook Channels.

Based upon the project information submitted, the Department of State agrees with the U.S. Army Corps of Engineers consistency determination for this activity.

Thank you for your cooperation in this matter.

Sincerely,



George R. Stafford
Director

GRS:VAB:dlb

SECTION 01130

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

This section covers the furnishing of all labor, material and equipment as performing all work required for the protection of the environment during construction operations except for those measures set forth in other Technical Provisions of these specifications.

1.2 REFERENCE

"Standard Methods for the Examination of Water, Sewage, and Industrial Wastes, Eighteenth Edition, 1992, published by American Public Health Association, 1015 Eighteenth Street, N.W., Washington, D.C. 20036".

1.3 GENERAL

For purpose of this specification, environmental protection is defined as the retention of the environment in its natural state to the greatest possible extent during project construction and to enhance the natural appearance in its final condition. Environment protection requires consideration of air, water, and land, and involves management of noise and solid waste, as well as other pollutants. In order to prevent, and to provide for abatement and control of, any environmental pollution arising from the construction activities in the performance of this contract, the Contractor and his subcontractors shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

1.4 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any non-compliance with the aforementioned Federal, state, or local laws or regulations. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. The Contractor shall, after receipt of such notice, immediately inform the Contracting Officer of proposed corrective action and take such action as may be approved. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs of damages by the Contractor.

1.5 SUBCONTRACTOR

Compliance with the provisions of this section by subcontractors will be responsibility of the Contractor.

1.6 IMPLEMENTATION

Prior to commencement of the work the Contractor will:

- a. Submit in writing his proposal for implementing this section for environment protection including a noise monitoring program to insure compliance with all Federal, State, and local noise ordinances.
- b. Meet with representatives of the Contracting Officer to develop mutual understandings relative to compliance with this provision and administration of the environmental protection program.

1.7 PROTECTION OF WATER RESOURCES

- a. General. The Contractor shall not pollute the waters with trash, debris, fuels, oils, bituminous materials, calcium chloride, acids or other harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, state, county, and municipal laws concerning pollution of the water. The Contractor shall comply with the conditions set forth in the New York State DEC Water Quality (WQC) permit and the New Jersey WQC included in Section 00903. All work under this contract shall be performed in such a manner that objectionable conditions will not be created in the waters through or adjacent to the project areas.
- b. Spillage. At all times of the year, special measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, herbicides, and insecticides from entering the waters.

1.8 PROTECTION OF FISH AND WILDLIFE

- a. The Contractor shall at all times perform all work and take such steps required to prevent any interference or disturbance to fish and wildlife. The Contractor will not be permitted to alter water flows or otherwise disturb native habitat adjacent to the project area which in the opinion of the Contracting Officer are critical to fish and wildlife. Fouling or polluting of water will not be permitted.
- b. The Contractor shall employ best dredging practices to minimize turbidity impacts.
- c. The Contractor shall comply with the special permits conditions specified in New York State Department of Environmental Conservation WQC dated 20 April 2001 and New Jersey WQC. See Section 00903.

1.9 PROTECTION OF CULTURAL RESOURCES

Known archaeological and historic properties have been taken into account as required by Federal Laws. Should unanticipated archaeological materials be encountered during the course of any project activities, the Contractor shall cease work in the vicinity of the discovery. The Contractor shall immediately report the find to the Contracting Officer so that the proper authorities may be notified.

1.10 NOISE MONITORING

Notwithstanding that the construction activities occur in the federal channel, the Contractor shall comply with the local noise ordinance standards set by the local municipalities. During the course of the contract the Contractor shall establish, at a minimum, an initial baseline (background) noise levels prior to the start of work and periodically check the noise levels. The Contractor shall process any and all of complaints of private citizens arising out of use of the Contractor's equipment promptly. All noise measurement shall be made at the property line of the impacted site. When instrument cannot be placed at the property line, the measurement shall be made as close thereto as to reasonable.

The Contractor shall designate a disturbance coordinator, with his/her name telephone number clearly posted at the construction site, responsible for responding to noise complaints, determining noise source/cause, and implementing measure to mitigate noise impact.

The Contractor shall locate all portable and support equipment as far away as possible from sensitive areas.

The Contractor shall use properly operating mufflers on all internal combustion powered equipment and keep them in proper state of tune to alleviate back-fire and use protective shrouds on external engines.

1.11 MEASUREMENT AND PAYMENT

a. Measurement. No separate measurement as such will be made for work performed under this section including a noise monitoring program to insure compliance with all Federal and State regulations, and local noise ordinances.

b. Payment. No separate payment will be made for the work covered under this section and all costs in connection therewith will be included in the applicable contract price to which the work pertains.

-- End of Section --

SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.1.1 Mobilization and Demobilization (Item No. 0001AA)

1.1.1.1 Payment

Payment will be made for costs associated with mobilization and demobilization, as defined in Contract Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

1.1.1.2 Unit of Measure

Unit of measure: lump sum.

1.1.2 Field Office (Item No. 0001AF)

1.1.2.1 Payment

Payment will be made for costs associated with operations necessary for installation, including all office equipment, system setup, maintenance services, and removal of equipment at designated area in accordance with the requirements specified in paragraph entitled "FIELD OFFICE" of Section 00800: Special Contract Requirements.

1.1.2.2 Unit of Measure

Unit of measure: lump sum.

1.1.3 Additional cost for Optional Insurance (Item No. 0002)

1.1.3.1 Payment

Payment will be made for costs associated with additional insurance premium provided by the contractor as requirements specified in Section 00800.

1.1.3.2 Unit of Measure

Unit of measure: lump sum.

1.1.4 Removal and Disposal of Concrete Navigation Foundation (Item No. 0001AM)

1.1.4.1 Payment

Payment will be made for costs associated with the removal and disposal of the existing reinforced concrete foundation systems for the Navigation Beacon #16A as per requirements specified in SECTION 02220.

1.1.4.2 Unit of Measure: lump sum.

1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the PRICE SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.2.1 Debris and Wooden Dike Removal and Disposal (Item No. 0001AB)

1.2.1.1 Payment

Payment will be made for costs associated with the collection, storage and handling, and the removal from the site and proper disposal of all debris recovered from the bottom and all floating debris including the US Dike. Bottom debris including cables, pilings, line, and all objects, which are unsuitable for placement in the HARS or upland disposal site or artificial reef site.

1.2.1.2 Unit of Measurement

Unit of measure: ton (2,000 lbs).

1.2.2 Dredging, Transportation, Delivery, Processing if required and Placement of Dredged Materials Unsuitable/Suitable for Placement at the HARS/(Excludes Dewatering: Item No. 0001AD and 0001AH).

-Item No. 0001AC; Dredging, Transportation, Delivery, Processing and Disposal of Dredged Materials Unsuitable for Placement at the HARS, Excludes Dewatering; Placement at Bayonne Landfill Remediation Site and or site of the contractor's choice.

-Item No.0001AG; Dredging, Transportation, Delivery, and Disposal of Dredged Materials Suitable for Placement Upland, Excludes Dewatering and Excludes Processing; Placement at Bayonne Landfill Remediation Site and or a site of the contractor's choice (placement upland without processing).

-Item No. 0001AJ; Dredging, Transportation, Delivery, and placement of non-rock materials suitable for placement upland, Excludes Dewatering and

Excludes Processing (placement at the Newark Bay Confined Disposal Facility).
-Item No. 0001AK; Disposal of Dredged Materials suitable for Placement at the HARS, Excludes Dewatering and Excludes Processing.
-Item No. 0003; Disposal of Dredged Materials suitable for Placement at the HARS, Excludes Dewatering and Excludes Processing.

1.2.2.1 Payment

Payment will be made for costs associated with dredging, including transportation and deposition of dredge material at designated disposal sites, processing, monitoring, and other incidental thereto, including hydrographic surveys.

1.2.2.2 Measurement

The total quantity of dredged material for which payment will be made will be by in-situ (quantity) measurement in cubic yards by computing the difference of available material between the pre-dredge survey and the post-dredge survey. Available material is defined as material located within the boundaries of the dredged prism as shown on the drawings to include the required dredged depths indicated on the drawings and up to 1.5 ft allowable overdepth. Specifically, a quantity of available material will be computed between the dredge prism and the bottom surface shown by the soundings of the Government's pre-dredge survey, and a quantity of available material will be computed between the dredge prism and the bottom surface shown by the Government post-dredge survey. The difference between these two available quantities (pre-dredge and post-dredge) will constitute the quantity of material dredged. Misplaced materials (including any required removal and placement), excessive dredging, and materials falling or drawn into the cut from beyond the side slope plane or beyond the limits indicated, will be excluded from the quantities for which payment will be made. The Triangulated Irregular Network (TIN) method will be used for quantity determination.

1.2.2.3 Unit of Measure

Unit of measure: cubic yard.

1.2.3 Dewatering in Accordance with WQCs and OENJC site (and/or contractor's proposed site(s)) Specifications for Upland Placement (Item No. 0001AD and 0001AH)

1.2.3.1 Payment

Payment will be made for costs associated with dewatering, monitoring, and other incidental thereto, excluding transportation to berthing areas.

1.2.3.2 Measurement

The total quantity of dewatering material for which payment will be made will be by in-situ (quantity) measurement in cubic yards by computing the difference of available material between the pre-dredge survey and the

post-dredge survey. Available material is defined as material located within the boundaries of the dredged prism as shown on the drawings to include the required dredged depths indicated on the drawings and up to 1.5 ft allowable overdepth. Specifically, a quantity of available material will be computed between the dredge prism and the bottom surface shown by the soundings of the Government's pre-dredge survey, and a quantity of available material will be computed between the dredge prism and the bottom surface shown by the Government post-dredge survey. The difference between these two available quantities (pre-dredge and post-dredge) will constitute the quantity of material dredged. Misplaced materials (including any required removal and placement), excessive dredging, and materials falling or drawn into the cut from beyond the side slope plane or beyond the limits indicated, will be excluded from the quantities for which payment will be made. The Triangulated Irregular Network (TIN) method will be used for quantity determination.

1.2.3.3 Unit of Measure

Unit of measure: cubic yard.

1.2.4 Drilling, Blasting, Dredging, and Disposal of Rock Materials at the Artificial Reef Shark River Reef (Item No. 0001AL)

1.2.4.1 Payment

Payment will be made for costs associated with dredging, including transportation and deposition of dredge material at the HARS, monitoring, and other incidental thereto, including hydrographic surveys.

1.2.4.2 Measurement

The total quantity of dredged material for which payment will be made will be by in-situ (quantity) measurement in cubic yards by computing the difference of available material between the pre-dredge survey and the post-dredge survey. Available material is defined as material located within the boundaries of the dredge prism as shown on the drawings to include the required dredged depths indicated on the drawings and up to 1.5 ft allowable overdepth. Specifically, a quantity of available material will be computed between the dredge prism and the bottom surface shown by the soundings of the Government's pre-dredge survey, and a quantity of available material will be computed between the dredged prism and the bottom surface shown by the Government post-dredge survey. The difference between these two available quantities (pre-dredge and post-dredge) will constitute the quantity of material dredged. Misplaced materials (including any required removal and placement), excessive dredging, and materials falling or drawn into the cut from beyond the side slope plane or beyond the limits indicated, will be excluded from the quantities for which payment will be made. The Triangulated Irregular Network (TIN) method will be used for quantity determination.

1.2.4.3 Unit of Measure

Unit of measure: cubic yard.

1.2.5 Subsurface drilling and sampling (Item No. 0001AE)

1.2.5.1 Payment

Payment will be made for costs associated with subsurface drilling and sampling for each drill hole performed, including mobilization and demobilization of all equipment necessary to perform the required drilling sampling, and coring to a depth of 55 feet below MLW. Mobilization and demobilization will include a drill rig of complete assembly and in working order as well as the transportation of samples and cores to the Caven Point Marine Terminal. Size of sampling shall be 1-3/8 inch diameter and size of rock core shall be NX diameter core.

1.2.5.2 Measurement

The measurement for drilling drive sample drill holes including soil sampling and rock core drilling (vertical) will be the number of holes that were drilled in accordance with the specifications. Measurements will be made from mean low water.

1.2.5.3 Unit of Measure

Unit of measure: each.

-- End of Section --

SECTION 01312

QUALITY CONTROL SYSTEM (QCS)
(NYD VERSION 09/01)

1.1 GENERAL

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Import/Export of Data

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01320A, PROJECT SCHEDULE, Section 01330, SUBMITTAL PROCEDURES, and Section 01451A, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Contractor shall be responsible after award of the construction contract to download the QCS software and User Manual from the Government's RMS Internet website ('<http://winrms.usace.army.mil>'). Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS

Internet Website. Any program updates of QCS will be made available to the Contractor via the Government RMS website as they become available and the Contractor shall be required to install and use the latest version of the QCS Software (Expect approximately eight (8) program updates per year).

1.3 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS:

Hardware

IBM-compatible PC with 200 MHz Pentium or higher processor

64+ MB RAM

4 GB hard drive disk space for sole use by the QCS system

3 1/2 inch high-density floppy drive

Compact disk (CD) Reader

Color monitor

Laser printer compatible with HP LaserJet III or better, with minimum 4 MB installed memory.

Connection to the Internet, minimum 28 BPS

Software

MS Windows 95 or newer version operating system (MS Windows NT 4.0 or newer is recommended)

Word Processing software - MS Word 97 or newer

Internet browser

The Contractor's computer system shall be protected by virus protection software that is regularly upgraded with all issued manufacturer's updates throughout the life of the contract.

Electronic mail (E-mail) compatible with MS Outlook

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website (["http://winrms.usace.army.mil/";](http://winrms.usace.army.mil/)

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM). The QCS database typically shall include current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.6.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. CLINs may include multiple activities, but activities may be assigned to only one such CLIN item. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01451A, CONTRACTOR QUALITY CONTROL. Within seven calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report

generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by Section 01451A, CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The contractor will acknowledge receipt of these QA punch list items by specific number reference on the Daily CQC Report. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 200.

1.6.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.6 QC Requirements

The Contractor shall develop and maintain a complete list of QC Testing, Transfer Property Listings, Installed Property Listings, and User Training requirements in QCS, all tied to individual pay activities. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.4 Submittal Management

The contractor will initially be required to enter all required submittal information into QCS. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns of ENG Form 4288, as required by Section 01330, SUBMITTAL PROCEDURES. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Contract Clause "Schedules for Construction Contracts", or Section 01320A, PROJECT SCHEDULE, as applicable. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF) (see Section 01320A PROJECT SCHEDULE). The contractor shall be responsible for ensuring the SDEF is in the format required to upload the data to QCS; otherwise, the contractor will be required to enter the data manually. The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import Government-provided data.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function. If used, diskettes and CD-ROMs will be submitted in accordance with the following:

1.8.1 File Medium

The Contractor shall submit required data on 3-1/2 inch double-sided

high-density diskettes formatted to hold 1.44 MB of data, capable of running under Microsoft Windows 95 or newer. Alternatively, CD-ROMs may be used. They shall conform to industry standards used in the United States. All data shall be provided in English.

1.8.2 Disk or CD-ROM Labels

The Contractor shall affix a permanent exterior label to each diskette and CD-ROM submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names

The Government will provide the file names to be used by the Contractor with the QCS software.

9. WEEKLY SUBMISSION OF EXPORT FILES

The contractor shall, at a minimum, generate and submit weekly export file to the Gov't.

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. The QCS module shall be completed to the satisfaction of the Contracting Officer prior to any contract payment (except for Bonds, and Insurance, as approved by the Contracting Officer).

-- End of Section --

SECTION 01320

PROJECT SCHEDULE
NETWORK ANALYSIS SYSTEM
(NYD Rev. 6/01)

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Schedules

Initial Project Schedule; GA. Preliminary Project Schedule;
GA. Periodic Schedule Updates; GA.

Four copies of the schedules showing codes, values, categories, numbers, items, etc., as required.

SD-08 Statements

Qualifications; FIO.

Documentation showing qualifications of personnel preparing schedule reports.

SD-09 Reports

Narrative Report; FIO. Schedule Reports; FIO.

Four copies of the reports showing numbers, descriptions, dates, float, starts, finishes, durations, sequences, etc., as required.

1.2 QUALIFICATIONS

The Contractor shall designate an authorized representative who shall be responsible for the preparation of all required project schedule reports. This person shall have previously created and reviewed computerized schedules. Qualifications of this individual shall be submitted to the Contracting Officer for review with the Preliminary Project Schedule submission.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

Pursuant to the Contract Clause, SCHEDULE FOR CONSTRUCTION CONTRACTS a Project Schedule as described below shall be prepared. The Contractor shall be responsible for scheduling of all procurement and construction activities as well as design activities if applicable to the project. The scheduling of construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project should also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

3.2 BASIS FOR PAYMENT

The schedule shall be the basis for measuring Contractor progress. Lack of an approved schedule or scheduling personnel shall result in an inability of the Contracting Officer to evaluate Contractor progress for the purposes of payment. Failure of the Contractor to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. In the case where Project Schedule revisions have been directed by the Contracting Officer and those revisions have not been included in the Project Schedule, then the Contracting Officer may hold retainage up to the maximum allowed by contract, each payment period, until revisions to the Project Schedule have been made.

3.3 PROJECT SCHEDULE

The computer software system utilized by the Contractor to produce the Project Schedule shall be capable of providing all requirements of this specification. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule. Manual methods used to produce any required information shall require approval by the Contracting Officer.

3.3.1 Use of the Critical Path Method

The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The Contractor shall provide the Project Schedule in either the Precedence Diagram Method (PDM) or the Arrow Diagram Method (ADM).

3.3.2 Level of Detail Required

With the exception of the initial and preliminary schedule submission, the Project Schedule shall include an appropriate level of detail. Failure to develop or update the Project Schedule or provide data to the Contracting Officer at the appropriate level of detail, as specified by the Contracting Officer, shall result in the disapproval of the schedule. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule.

3.3.2.1 Activity Durations

Contractor submissions shall be required to follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment periods. A rule of thumb, that the Contractor should use, is that less than 2 percent of all non-procurement activities' Original Durations shall be greater than 20 days.

3.3.2.2 Design and Permit Activities-

The Contractor shall integrate design and permitting activities, including necessary conferences and follow-up actions and design package submission dates into the schedule if these items are applicable to the project.

3.3.2.3 Procurement Activities

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 90 days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing.

3.3.2.4 Government Activities

Government and other agencies activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-in, Government Furnished Equipment (GFE) and notice to proceed for phasing requirements.

3.3.2.5 Workers Per Day

All activities shall have an estimate of the average number of workers per day that are expected to be used during the execution of the activity to produce the expected completion date. If no workers are required for an activity, in the case of activities related to procurement, for example, then the activity shall be identified as using zero workers per day. The workers per day information for each activity shall be identified by the Workers Per Day Code.

3.3.2.6 Responsibility

All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, contractor work force, or government agency performing a given task. Activities shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

3.3.2.7 Work Areas

All activities shall be identified in the project schedule by the work area

in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall be identified by the Work Area Code.

3.3.2.8 Modification or Claim Number

Any activity that is added or changed by contract modification or used to justify claimed time shall be identified by a mod or claim code that changed the activity. Activities shall not belong to more than one modification or claim item. The modification or claim number of each activity shall be identified by the Mod or Claim Number.

3.3.2.9 Bid Item

All activities shall be identified in the project schedule by the Bid Item to which the activity belongs. An activity shall not contain work in more than one bid item. The bid item for each appropriate activity shall be identified by the Bid Item Code.

3.3.2.10 Phase of Work

All activities shall be identified in the project schedule by the phases of work in which the activity occurs. Activities shall not be allowed to contain work in more than one phase of work. The project phase of each activity shall be by the unique Phase of Work Code.

3.3.2.11 Category of Work

All Activities shall be identified in the project schedule according to the category of work which best describes the activity. Category of work refers, but is not limited to, the procurement chain of activities including such items as submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code.

3.3.2.12 Feature of Work

All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work refers, but is not limited to a work breakdown structure for the project. The feature of work for each activity shall be identified by the Feature of Work Code.

3.3.3 Scheduled Project Completion

The schedule interval shall extend from the Notice to Proceed to the contract completion date.

3.3.3.1 Project Start Date

The schedule shall start no earlier than the date that the Notice to Proceed (NTP) was acknowledged. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have: an "ES" constraint, a constraint date equal to the date that the NTP was acknowledged, and a zero day duration.

3.3.3.2 Constraint of Last Activity

Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity call "End Project". The "End Project" activity shall have: a "LF" constraint, a constraint date equal to the completion date for the project, and a zero day duration.

3.3.3.3 Early Project Completion

In the event the project schedule shows completion, the project prior to the contract completion date, the Contractor shall identify those activities that have been accelerated and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. Contractor shall specifically address each of the activities noted at every project schedule update period to assist the Contracting Officer to evaluate the Contractor's ability to actually complete prior to the contract period.

3.3.4 Interim Completion Dates

Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

3.3.4.1 Start Phase

The Contractor shall include as the first activity for a project phase an activity called "Start Phase X" where "X" refers to the phase of work. The "Start Phase X" activity shall have: an "ES" constraint, a constraint date equal to the date that the NTP was acknowledged, and a zero day duration.

3.3.4.2 End Phase

The Contractor shall include as the last activity in a project phase an activity called "End Phase X" where "X" refers to the phase of work. The "End Phase X" activity shall have: a "LF" constraint, a constraint date equal to the completion date for the project, and a zero day duration.

3.3.4.3 Phase X

The Contractor shall include a hammock type activity for each project phase called "Phase X" where "X:" refers to the phase of work. The "Phase X" activity shall be logically tied to the earliest and latest activities in the phase.

3.3.5 Default Progress Data Disallowed

Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided

from Contractor Quality Control Reports. Failure of the Contractor to document the Actual Start and Finish dates on the Daily Quality Control report for every in progress or completed activity and insure that the data contained on the Daily Quality Control reports is the sole basis for schedule updating shall result in the disapproval of the Contractor's schedule and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes.

3.3.6 Out-of-Sequence Progress

Activities that have posted progress without predecessors being completed (Out-of-Sequence Progress) shall be allowed only by the case-by-case approval of the Contracting Officer. The Contracting Officer may direct that changes in schedule logic be made to correct any or all out-of-sequence work.

3.3.7 Extended Non-Work Periods

Designation of Holidays to account for non-work periods of over 5 days shall not be allowed. Non-work periods of over 5 days shall be identified by addition of activities that represent the delays. Modifications to the logic of the project schedule shall be made to link those activities that may have been impacted by the delays to the newly added delay activities.

3.3.8 Negative Lags

Lag durations contained in the project schedule shall not have a negative value.

3.4 PROJECT SCHEDULE SUBMISSIONS

The Contractor shall provide the submissions as described below. The data disk, reports, and network diagrams required for each submission are contained in paragraph SUBMISSION REQUIREMENTS.

3.4.1 Preliminary Project Schedule Submission

The Preliminary Project Schedule, defining the Contractor's planned operations for the first 60 calendar days shall be submitted for approval within 10 calendar days after Notice to Proceed is acknowledged. The approved preliminary schedule shall be used for payment purposes not to exceed 60 calendar days after Notice to Proceed.

3.4.2 Initial Project Schedule Submission

The Initial Project Schedule shall be submitted for approval within 40 calendar days after Notice to Proceed. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail.

3.4.3 Periodic Schedule Updates

Based on the result of progress meetings, specified in "Periodic Progress Meetings," the periodic schedule updates. These submissions shall enable the Contracting Officer or to assess Contractor's progress. If the Contractor

fails or refuses to furnish the information and project schedule data, which in the judgment of the Contracting Officer or authorized representative, is necessary for verifying the contractor's progress, the Contractor shall be deemed not to have provided an estimate upon which progress payment may be made.

3.4.4 Standard Activity Coding Dictionary

The Contractor shall submit, with the Initial Project Schedule, a coding scheme that shall be used throughout the project for all activity codes contained in the schedule. The coding scheme submitted shall list the values for each activity code category and translate those values into project specific designations. For example, a Responsibility Code Value, "ELE", may be identified as "Electrical Subcontractor." Activity code values shall represent the same information throughout the duration of the contract. Once approved with the Initial Project Schedule submission, changes to the activity coding scheme must be approved by the Contracting Officer's Representative.

3.5 SUBMISSION REQUIREMENTS

The following items shall be submitted by the Contractor for the initial submission, and every periodic project schedule update throughout the life of the project:

3.5.1 Data Disks

Two data disks containing the project schedule shall be provided. Data on the disks shall be in the format specified in Appendix A, " Standard Data Exchange Format".

3.5.1.1 File Medium

Required data shall be submitted on 3.5 disks, formatted to hold 1.44 MB of data, under the MS-DOS Version 5.0 operating system.

3.5.1.2 Disk Label

A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Initial, Update, or Change), full contract number, project name, project location, data date, name and telephone number or person responsible for the schedule, and the MS-DOS version used to format the disk.

3.5.1.3 File Name

Each file submitted shall have a name related to either the schedule data date, project name, or contract number. The Contractor shall develop a naming convention that will insure that the names of the files submitted are unique. the Contractor shall submit the file naming convention to the Contracting Officer for approval.

3.5.2 Narrative Report

A Narrative Report shall be provided with each update of the project schedule. This report shall be provided as the basis of the Contractor's progress payment request. The Narrative Report shall include: a description of activities along the 4 most critical paths, a description of current and anticipated problem areas or delaying factors and their impact, and an explanation of corrective actions taken.

3.5.3 Approved Changes Verification

Only project schedule changes that have been previously approved by the Contracting Officer shall be included in the schedule submission. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.

3.5.4 Schedule Reports

The format for each activity for the schedule reports listed below shall contain: Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float. Actual Start and Actual Finish Dates shall be printed for those activities in-progress or completed.

3.5.4.1 Activity Report

A list of all activities sorted according to activity number or "I-NODE" AND "J-NODE" and then sorted according to Early Start Date. For completed activities the Actual Start Date shall be used as the secondary sort.

3.5.4.2 Logic Report

A list of Preceding and Succeeding activities for every activity in ascending order by activity number and then sorted according to Early Start Date. For completed activities the Actual Start Date shall be used as the secondary sort.

3.5.4.3 Total Float Report

A list of all activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates.

3.5.4.4 Earnings Report

A compilation of the Contractor's Total Earnings on the project from the Notice to Proceed until the most recent Monthly Progress Meeting. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and Contracting Officer at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. Activities shall be grouped by bid item and sorted by activity numbers. This report shall: sum all activities in a bid item and provide a bid item percent; complete and

sum all bid items to provide a total project percent complete. The printed report shall contain, for each activity: [Activity Number] [or] ["i-node" and "j-node"], Activity Description, Original Budgeted Amount, Total Quantity, Quantity to Date, Percent Complete (based on cost), Earnings to Date.

3.5.4.5 Labor Loading.

For each activity shown on the logic report list the total amount of work required for the activity in man-hours, the number of workers assigned to the activity, the expected production rate for a worker, and the length of time (in work days) required to render the expected completion date for the activity. Completion dates on this report must agree with those on the logic report.

3.5.5 Network Diagram

The network diagram shall be required on the initial schedule submission and on bi-monthly (60 days) schedule update submissions. In addition to other submission requirements, a single mylar reproducible 20 inch by 30 inch size shall be submitted. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review compliance with this paragraph:

3.5.5.1 Continuous Flow

Diagrams shall show a continuous flow from left to right with no arrows from right to left. The activity or event number, description, duration, and estimated earned value shall be shown on the diagram.

3.5.5.2 Project Milestone Dates

Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

3.5.5.3 Critical Path

The critical path shall be clearly shown.

3.5.5.4 Banding

Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

3.5.5.5 S-Curves

Earnings curves showing projected early and late earnings and earnings to date.

3.6 PERIODIC PROGRESS MEETINGS

Progress meetings to discuss payment shall include a monthly on-site meeting

or other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor will describe, on an activity by activity basis, all proposed revisions and adjustments to the project schedule required to reflect the current status of the project. The Contracting Officer will approve activity progress, proposed revisions, and adjustments as appropriate.

3.6.1 Meeting Attendance

The Contractor's Project Manager and Scheduler shall attend the regular progress meeting.

3.6.2 Update Submission Following Progress Meeting

A complete update of the project schedule containing all approved progress, revisions, and adjustments, based on the regular progress meeting, shall be submitted not later than 4 working days after the monthly progress meeting.

3.6.3 Progress Meeting Contents

Update information, including Actual Start Dates, Actual Finish Dates, Remaining Durations, and Cost to Date shall be subject to the approval of the Contracting Officer. The following minimum set of items which the Contractor shall address, on an activity by activity basis, during each progress meeting.

3.6.3.1 Start and Finish Dates

The Actual Start and Actual Finish dates for each activity currently in progress or completed activities.

3.6.3.2 Time Completion

The estimated Remaining Duration for each activity in progress. Time based progress calculations must be based on Remaining Duration for each activity.

3.6.3.3 Cost Completion

The earnings for each activity started. Payment shall be based on earnings for each in-progress or completed activity. Payment for individual activities shall not be made for work that contains quality defects. A portion of the overall project amount may be retained based on delays of activities.

3.6.3.4 Logic Changes

All logic changes pertaining to Notice to Proceed on change orders, change orders to be incorporated into the schedule, contractor proposed changes in work sequence, corrections to schedule logic for out-of-sequence progress, [lag durations,] and other changes that have been made pursuant to contract provisions shall be specifically identified and discussed.

3.6.3.5 Other Changes

Other changes required due to delays in completion of any activity or group

of activities are those delays beyond the Contractors control such as strikes and unusual weather. Also included are delays encountered due to submittals, Government Activities, deliveries or work stoppage which makes re-planning the work necessary, and when the schedule does not represent the actual prosecution and progress of the work.

3.7 REQUESTS FOR TIME EXTENSIONS

In the event the Contractor requests an extension of the contract completion date, he shall furnish such justification, project schedule data and supporting evidence as the Contracting Officer may deem necessary for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract. Submission of proof of delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is obligatory to any approvals.

3.7.1 Justification of Delay

The project schedule must clearly display that the Contractor has used, in full, all the float time available for the work involved with this request. The Contracting Officer's determination as to the number of allowable days of contract extension, shall be based upon the project schedule updates in effect for the time period in question and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, shall not be a cause for a time extension to the contract completion date.

3.7.2 Submission Requirements

The Contractor shall submit a justification for each request for a change in the contract completion date of under two weeks based upon the most recent schedule update at the time of the Notice to Proceed or constructive direction issued for the change. Such a request shall be in accordance with the requirements of other appropriate Contract Clauses and shall include, as a minimum:

- a. A list of affected activities, with their associated project schedule activity number.
- b. A brief explanation of the causes of the change.
- c. An analysis of the overall impact of the changes proposed.
- d. A sub-network of the affected area.

Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

3.7.3 Additional Submission Requirements

For any request for time extension for over 2 weeks, the Contracting Officer may request an interim update with revised activities for a specific change request. The Contractor shall provide this disk within 4 days of the Contracting Officer's request.

3.8 DIRECTED CHANGES

If Notice to Proceed (NTP) is issued for changes prior to settlement of price and/or time, the Contractor shall submit proposed schedule revisions to the Contracting Officer within 2 weeks of the NTP being issued. The proposed revisions to the schedule will be approved by the Contracting Officer prior to inclusion of those changes within the project schedule. If the Contractor fails to submit the proposed revisions, the Contracting Officer may furnish the Contractor suggested revisions to the project schedule. The Contractor shall include these revisions in the project schedule until the Contractor submits revisions, and final changes and impacts have been negotiated. If the Contractor has any objections to the revisions furnished by the Contracting Officer, then the Contractor shall advise the Contracting Officer within 2 weeks of receipt of the revisions. Regardless of the objections, the Contractor will continue to update their schedule with the Contracting Officer's revisions until a mutual agreement in the revisions may be made. If the Contractor fails to submit alternative revisions within 2 weeks of receipt of the Contracting Officer's proposed revisions, the Contractor will be deemed to have concurred with the Contracting Officer's proposed revisions. The proposed revisions will then be the basis for an equitable adjustment for performance of the work.

3.9 OWNERSHIP OF FLOAT

Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

APPENDIX A

ER 1-1-11

15 Jun 95

STANDARD DATA EXCHANGE FORMAT SPECIFICATION**PART 1- GENERAL**

1. Application of This Provision: The Standard Data Exchange Format (SDEF) provides a non-proprietary protocol to exchange project planning and progress data between scheduling systems.

2. File Type and Format: The data file shall consist of a 132 character, freed format, "ASCII" file. Text shall be left-justified and numbers shall be right-justified in each field. Data records must conform, exactly, to the sequence, column position, maximum length, mandatory values, and field definitions described below to comply with the SDEF. Unless specifically stated, all numbers shall be whole numbers. Fields containing numbers shall not be zero filled. All data columns shall be separated by a single blank column. The file shall not contain blank lines.

3. Usage Notes: Where appropriate, notes regarding proper usage of systems to support the SDEF have been included in brackets ([]). These notes are included to assist users in creating SDEF-compatible files, given the variety of software systems that support the SDEF.

4. Recommended Systems: Several systems have been tested to determine the accuracy of importing and exporting SDEF files. For information on the current list of recommended systems, please contact Mr. Stan Green at HQUSACE, (202) 761-0206. Although the currently listed systems have been tested other systems may also be acceptable provided those systems correctly import and export SDEF files.

5. SDEF Checker Program: A program that checks whether a file meets the SDEF is available free of charge. A copy of this program may be obtained by written request to: U.S. Army Corps of Engineers, ATTN: Mr. Bill East (CECER-FFA), P.O. Box 9005, Champaign, IL 61826-90005. A description of the SDEF Checker is also available on the Internet and CivilNet.

PART 2- SDEF SPECIFICATION

6. SDEF Organization: The SDEF shall consist of the following records provided in the exact sequence shown below:

Paragraph RecordReference DescriptionRemarks

6.a	Volume Record	Mandatory First Line of File
6.b	Project Record	Mandatory Second Line of File
6.c	Calendar Record(s)	Mandatory One Record Minimum
6.d	Holiday Record(s)	Mandatory if Holiday Used
6.e	Activity Record(s)	Mandatory Records
6.f	Precedence Record(s)	Mandatory for Precedence

6.g Unit Cost Record(s) Mandatory for Unit Costs
 6.h Progress Record(s) Mandatory Records
 6.i File End Record Mandatory Last Line of Disk/File

6.a. Volume Record: The Volume Record shall be used to control the transfer of data that may not fit on a single disk. The first line in every file used to store SDEF data shall be the Volume Record. The Volume Record shall sequentially identify the number of the data transfer disk(s). The Volume Record shall have the following format:

<u>Description</u>	<u>Column Position</u>	<u>Max. Len.</u>	<u>Req. Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER	1 -4	4	VOLM	Fixed	Filled
DISK NUMBER	6 -7	2	^	Number	Right Justified

6.a.(1) The RECORD IDENTIFIER is the first four characters of this record. The required value for this field shall be "VOLM". The VOLM record must appear on the first line of the SDEF data file.

6.a.(2) The DISK NUMBER field shall identify the number of the data disk used to store the data exchange information. If all data may be contained on a single disk, this field shall contain the value of "1". If more disks are required, then the second disk shall contain the value "2", the third disk shall be designated with a "3", and so on. Identification of the last data disk is accomplished in the Reject End Record.

6.b. Project Record: The Project Identifier Record shall contain general project information. Because more than one SDEF file may be required for data transfer between large projects, the PROJ record shall be the second line of the first SDEF file transferred. The PROJ record shall contain information in the following format:

<u>Description</u>	<u>Type</u>	<u>Column Position</u>	<u>Max. Len.</u>	<u>Req. Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER		1-4	4	PROJ	Fixed	Filled
DATA DATE		6-12	7	^	ddmmmyy	Filled
PROJECT IDENTIFIER		14-17	4	^	Alpha.	Left Justified
PROJECT NAME		19-66	48	^	Alpha.	Left Justified
CONTRACTOR NAME		68-103	36	^	Alpha.	Left Justified
ARROW OR PRECEDENCE		105-105	1	A,P	Fixed	filled
CONTRACT NUMBER		107-112	6	^	Alpha.	Left Justified
PROJECT START		114-120	7	^	ddmmmyy	Filled
PROJECT END		122-128	7	^	ddmmmyy	Filled

6.b.(1) The RECORD IDENTIFIER is the first four characters of this record. The required value for this field shall be "PROJ". This record shall contain the general project information and indicates which scheduling method shall be used.

6.b.(2) The DATA DATE is the date of the schedule calculation. The abbreviation "ddmmmyy" refers to a date format that shall translate a date into two numbers for the day, three letters for the month, and two numbers

for the year. For example, March 1, 1999 shall be translated into 01Mar99. This same convention for date formats shall be used throughout the entire data format. To ensure that dates are translated consistently, the following abbreviations shall be used for the three character month code:

<u>Abbreviation</u>	<u>Month</u>
JAN	January
FEB	February
MAR	March
APR	April
MAY	May
JUN	June
JUL	July
AUG	August
SEP	September
OCT	October
NOV	November
DEC	December

6.b.(3) The PROJECT IDENTIFIER is a maximum four character abbreviation for the schedule. These four characters shall be used to uniquely identify the project and specific update as agreed upon by Contractor and Contracting Officer. When utilizing scheduling software these four characters shall be used to select the project. Software manufacturers shall provide information to users to ensure that data importing programs do not automatically overwrite other schedules with the same PROJECT IDENTIFIER.

6.b.(4) The PROJECT NAME field shall contain the name and location of the project edited to fit the space provided. The data appearing here shall appear on scheduling software reports. The abbreviation "Alpha." refers to an "Alphanumeric" field value and shall be used throughout the remainder of this specification.

6.b.(5) The CONTRACTOR NAME field shall contain the Construction Contractor's name, edited to fit the space provided.

6.b.(6) The ARROW OR PRECEDENCE field shall indicate which method shall be used for calculation of the schedule. The value "A" shall signify the Arrow Diagramming Method. The value "P" shall signify the Precedence Diagramming Method. The ACTIVITY ID field of the Activity Record shall be interpreted differently depending on the value of this field. The Precedence Record shall be required if the value of this field is "P". [Usage note: software systems may not support both arrow and precedence diagramming. It is recommended that the selection of the type of network be based on the capabilities of the software used by project partners.]

6.b.(7) The CONTRACT NUMBER field shall contain the contract number for the project. For example, the construction contract number DACA85-89-C-0001 shall be entered into this field as "890001".

6.b.(8) The PROJECT START field shall contain the date that the Contractor acknowledges the Notice to Proceed (NTP). [Usage note: Software systems may use a project start date to constrain the first activity of a network. To

ensure consistent scheduling calculations across products, it is recommended that the first activity in the schedule contain an EARLY START constraint and a software system's PROJECT START date only be used to report on the project's start date.]

6.b.(9) The PROJECT END field shall contain the date that the Contractor plans to complete the work as approved by the Contracting Officer. [Usage note: software systems may use a project end date to constrain the last activity of a network. To ensure consistent scheduling calculations across products, it is recommended that the last activity in the schedule contain an EARLY START constraint and a software system's PROJECT END date only be used to report on the project's end date.]

6.c. Calendar Record: The Calendar Record(s) shall follow the Project Identifier Record in the first disk of data transferred. A minimum of one Calendar Record shall be required for all data exchange activity files. The format for the Calendar Record shall be as follows:

<u>Description</u>	<u>Column Position</u>	<u>Max. Len.</u>	<u>Req. Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER	1 -4	4	CLDR	Fixed	Filled
CALENDAR CODE	6 -6	1	^	Alpha.	Filled
WORKDAYS	8 -14	7	SMTWTFS	Fixed	Filled
CALENDAR DESCRIPTION	16-45	30	^	Alpha.	Left Justified

6.c.(1) The RECORD IDENTIFIER shall always begin with "CLDR" to identify it as a Calendar Record. Each Calendar Record used shall have this identification in the first four columns. [Usage note: Systems contain a variety of calendar options. It is recommended that the least common denominator of calendar features between the systems be used as the basis for creating the SDEF file for a given project.]

6.c.(2) The CALENDAR CODE shall be used in the activity records to signify that this calendar is associated with the activity. [Usage note: Some systems do not allow for alphanumeric CALENDAR CODES, but only allow positive integers from 1 to 9. It is recommended that only positive integers be used for the CALENDAR CODE field to support the widest variety of scheduling systems.]

6.c.(3) The WORKDAYS field shall contain the work-week pattern selected with "Y", for Yes, and "N", for No. The first character shall be Sunday and the last character Saturday. An example of a typical five (5) day work-week would be NYYYYYN. A seven (7) day work-week would be YYYYYYY.

6.c.(4) The CALENDAR DESCRIPTION shall be used to briefly describe the calendar used.

6.d. Holiday Record: The Holiday Record(s) shall follow the Calendar Record(s) in the first disk of data transferred. There may be calendars without any holidays designated or several Holiday Records for each Calendar Record(s). The format for the Holiday Record shall be as follows:

Column	Max.	Req.
--------	------	------

<u>Description</u>	<u>Position</u>	<u>Len.</u>	<u>Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER	1-4	4	HOLI	Fixed	Filled
CALENDAR CODE	6-6	1	^	Alpha.	Filled
HOLIDAY DATE	8-14	7	^	ddmmmyy	Filled
HOLIDAY DATE	16-22	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	24-30	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	32-38	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	40-46	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	48-54	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	56-62	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	64-70	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	72-78	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	80-86	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	88-94	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	96-102	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	104-110	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	112-11	7	-	ddmmmyy	May be Filled
HOLIDAY DATE	120-126	7	-	ddmmmyy	May be Filled

6.d.(1) The RECORD IDENTIFIER shall always begin with "HOLI". Each Holiday Record used shall have this identification in the first four columns.

6.d.(2) The CALENDAR CODE indicates which work-week calendar the holidays shall be applied to. More than one HOLI record may be used for a given CALENDAR CODE.

6.d.(3) The HOLIDAY DATE shall contain the date of each individual non-work day.

6.e. Activity Records: Activity Records shall follow any Holiday Record(s). If there are no Holiday Record(s), then the Activity Records shall follow the Calendar Record(s). There shall be one Activity Record for every activity in the network. Each activity shall have one record in the following format:

<u>Description</u>	<u>Column Position</u>	<u>Max. Len.</u>	<u>Req. Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER	1 -4	4	ACTV	Fixed	Filled
ACTIVITY ID	6 -15	10	^	Integer	See Comment Below
ACTIVITY DESCR.	17-46	30	^	Alpha.	Left Justified
ACTIVITY DURATION	48-50	3	^	Integer	Right Justified
CONSTRAINT DATE	52-58	7		ddmmmyy	May be Filled
CONSTRAINT TYPE	60-61	2		ES or LF	May be Filled
CALENDAR CODE	63-63	1	^	Alpha.	Filled
HAMMOCK CODE	65-65	1	Y, blank	Fixed	May be Filled
WORKERS PER DAY	67-69	3		Integer	Right Justified
RESPONSIBILITY CODE	71-74	4		Alpha.	Left Justified
WORK AREA CODE	76-79	4		Alpha.	Left Justified
MOD OR CLAIM NO.	81-86	6		Alpha.	Left Justified
BID ITEM	88-93	6		Alpha.	Left Justified
PHASE OF WORK	95-96	2		Alpha.	Left Justified
CATEGORY OF WORK	98-98	1		Alpha.	May be filled
FEATURE OF WORK	100-128	30		Alpha.	Left Justified

6.e.(1) The RECORD IDENTIFIER for each activity description record must begin with the four character "ACTV" code. This field shall be used for both the Arrow Diagram Method (ADM) and Precedence Diagram Method (PDM).

6.e.(2) The ACTIVITY ID consists of coding that shall differ, depending on whether the ADM or PDM method was selected in the Project Record. If the ADM method was selected then the field shall be interpreted as two right-justified fields of five (5) integers each. If the PDM method was selected the field shall be interpreted as one (1) right-justified field of ten (10) integers each. The maximum activity number allowed under this arrangement is 99999 for ADM and 9999999999 for the PDM method. [Usage note: Many systems allow alphanumeric ACTIVITY IDs. While the SDEF does not strictly, allow the use of alphanumeric values, users may agree to use the ACTIVITY ID field to exchange alphanumeric data. It is recommended that the ACTIVITY ID be restricted to integers when one or more of the systems being used for scheduling allows only integer ACTIVITY ID values.]

6.e.(3) The ACTIVITY DESCRIPTION shall be a maximum of 30 characters. Descriptions must be limited to the space provided.

6.e.(4) The ACTIVITY DURATION contains the estimated original duration for the activity on the schedule. The duration shall be based upon the work-week designated by the activity's related calendar.

6.e.(5) The CONSTRAINT DATE field shall be used to identify a date that the scheduling system may use to modify float calculations. If there is a date in this field, then there must be a valid entry in the CONSTRAINT TYPE field.

6.e.(6) The CONSTRAINT TYPE field shall be used to identify the way that the scheduling system shall use the CONSTRAINT DATE to modify schedule float calculations. If there is a value in this field, then there must be a valid entry in the CONSTRAINT DATE field. The valid values for the CONSTRAINT TYPE are as follows:

<u>Code</u>	<u>Definition</u>
-------------	-------------------

ES	The CONSTRAINT DATE shall replace an activity's early start date, if the early start date is prior to the CONSTRAINT DATE.
LF	The CONSTRAINT DATE shall replace an activity's late finish date, if the late finish date is after the CONSTRAINT DATE.

[Usage note: Systems provide a wide variety of constraint types that may not be supported by other systems. It is recommended that constraint types be restricted to the values above regardless of the capabilities of the various systems being used for scheduling.]

6.e.(7) The CALENDAR CODE relates this activity to an appropriate work-week calendar. The ACTIVITY DURATION must be based on the valid work-week referenced by this CALENDAR CODE field.

6.e.(8) The HAMMOCK CODE indicates that a particular activity does not have its own independent duration, but takes its start dates from the start date

of the preceding activity (or node) and takes its finish dates from the finish dates of its succeeding activity (or node). If the value of the HAMMOCK CODE field is "Y", then the activity is a hammock activity.

6.e.(9) The WORKERS PER DAY shall contain the average number of workers expected to work on the activity each day the activity is in progress. If this code is required by project scheduling specifications, values for this data will be right justified. Activities without workers per day shall have a value of "0".

6.e.(10) The RESPONSIBILITY CODE shall identify the subcontractors or major trade involved with completing the work for the activity. If this code is required by project scheduling specifications, value for this data will be left justified.

6.e.(11) The WORK AREA CODE shall identify the location of the activity within the project. If this code is required by project scheduling specifications, value for this data will be left justified.

6.e.(12) The MOD OR CLAIM NUMBER shall uniquely identify activities that are added or changed on a construction contract modification, or activities that justify any claimed time extensions. If this code is required by project scheduling specifications, value for this data will be left justified.

6.e.(13) The BID ITEM shall identify the bid item number associated with each activity. If this code is required by project scheduling specifications, value for this data will be left justified.

6.e.(14) The PHASE OF WORK shall identify the timing of a specific activity within the entire project. If this code is required by project scheduling specifications, value for this data will be left justified.

6.e.(15) The CATEGORY OF WORK shall identify the general type of work performed by every activity. If this code is required by project scheduling specifications, value for this data will be placed in the field.

6.e.(16) The FEATURE OF WORK shall identify a very broad designation of the general type of work that is being accomplished by the activity. If this code is required by project scheduling specifications, value for this data will be left justified. [Usage note: Many systems require that FEATURE OF WORK values be placed in several activity code fields. It is recommended that users review SDEF documentation to determine the correct way to use a given software system to produce the FEATURE OF WORK code.]

6.f. Precedence Record: The Precedence Record(s) shall follow the Activity Records if a Precedence Diagram Method schedule (PDM) is identified in the ARROW OR PRECEDENCE field of the Project Record. The Precedence Record has the following format:

<u>Description</u>	<u>Column Position</u>	<u>Max. Len.</u>	<u>Req. Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER	1 -4	4	PRED	Fixed	Filled
ACTIVITY ID	6-15	10	^	Integer	See Comment Below

PRECEDING ACTIVITY	17 -26	10	^	Integer	See Comment Below
PREDECESSOR TYPE	28-28	1	^	S, F, C	Filled
LAG DURATION	30-33	4	^	Integer	Right Justified

6.f.(1) The RECORD IDENTIFIER shall begin with the four characters "PRED" in the first four columns of the record.

6.f.(2) The ACTIVITY ID identifies the activity whose predecessor shall be specified in this record.

6.f.(3) The PRECEDING ACTIVITY number is the number of an activity that precedes the activity noted in the ACTIVITY ID field.

6.f.(4) The PREDECESSOR TYPE field indicates the type of relation that exists between the chosen pair of activities. Valid PREDECESSOR TYPE fields areas follows:

<u>Code</u>	<u>Definition</u>
S	Start-to-Start relation
F	Finish-to-Finish relation
C	Finish-to-Start relation

[Usage note: Some systems provide additional predecessor types that may not be supported by all other systems. It is recommended that predecessor types be restricted to the values above regardless of the capabilities of the various systems being used for scheduling.]

6.f.(5) The LAG DURATION field contains the number of days delay between the preceding and current activity. [Usage note: Some systems allow negative values for the LAG DURATION. Because these values are not supported by all other systems, it is recommended that values be restricted to zero and positive integers.]

6.g. Unit Cost Record: The Unit Cost Record shall follow all Precedence Records. If the schedule utilizes the Arrow Diagram Method, then the Unit Cost Record shall follow any Activity records. There shall be one Unit Cost Record for every activity that is not a lump sum activity. [Usage note: (1) It is recommended that users who wish to exchange unit cost data contact SDEF vendor representatives to determine the ability of the software system to import/export unit cost information. (2) If the software being used by each member of the project team supports unit cost data then users may wish to conduct a trial run of the SDEF data exchange with a two or three-activity network to ensure that unit cost data transfers as expected. If problems are found please consult vendor representatives for resolution prior to exchange of full project schedules. (3) Unit cost record data does not, in most systems, result in the correct values being placed in the ACTIVITY COST and COST TO DATE fields of the Progress (PROG) Record. Users must, at this time, manually transfer the data from the Unit Cost Record to the Progress Record. The fields for this record shall take the following format:

<u>Description</u>	<u>Column</u>	<u>Max.</u>	<u>Req.</u>	<u>Type</u>	<u>Notes</u>
	<u>Position</u>	<u>Len.</u>	<u>Value</u>		

RECORD IDENTIFIER 1 -4	4	UNIT	Fixed	Filled
ACTIVITY ID 6-15	10	^	Integer	See Comment Below
TOTAL QTY 17-29	13	^	Format 8.4	Right Justified
COST PER UNIT 31-43	13	^	Format 8.4	Right Justified
QTY TO DATE 45-57	13	^	Format 8.4	Right Justified
UNIT OF MEASURE 59-61	3	^	Alpha.	Left Justified

6.g.(1) The RECORD IDENTIFIER shall be identified with the four characters "UNIT" placed in the first four columns of the record.

6.g.(2) The ACTIVITY ID for each activity shall match the format described in the activity record. Each activity may have only one Unit Cost Record.

6.g.(3) The TOTAL QTY is the total amount of material to be used in this activity. This number consists of eight digits, one decimal point and four more digits. An example of a number in this format is "11111111.1111". If decimal places are not needed this field shall still contain a ".0000" in columns 25-29. [Usage note: Many systems support a different format for this value that does not include as many decimal places. It is recommended that users determine their requirements for significant digits based on the lowest common denominator of the software systems being used for a given project.]

6.g.(4) The COST PER UNIT is the cost, in dollars and cents, for each unit to be used in this activity. This number consists of eight digits, one decimal point, and four more digits. An example of a number in this format is "11111111.1111". If decimal places are not needed this field shall still contain a ".0000" in columns 39-43. [Usage note: Many systems support a different format for this value that does not include as many decimal places. It is recommended that users determine their requirements for significant digits based on the lowest common denominator of the software systems being used for a given project.]

6.g.(5) The QTY TO DATE is the quantity of material installed in this activity up to the data date. This number consists of eight digits, one decimal point, and four more digits. An example of a number in this format is "11111111.1111". If decimal places are not needed this field shall still contain a ".0000" in columns 53-57. [Usage note: Many systems support a different format for this value that does not include as many decimal places. It is recommended that users determine their requirements for significant digits based on the lowest common denominator of the software systems being used for a given project.]

6.g.(6) The UNIT OF MEASURE is an abbreviation that may be used to describe the units being measured for this activity. Valid values for this field are any meaningful English or metric unit, except "LS" for Lump Sum. Lump Sum activities are not to have Unit Cost Records.

6.h. Progress Record: Progress Record(s) shall follow all Unit Cost Record(s). If there are no Unit Cost Record(s), then the Progress Record(s) shall follow all Precedence Records. If the schedule utilizes the Arrow Diagram Method, then the Progress Record shall follow any Activity Records. One Progress Record is required for every activity in the Activity Record. The fields for this Record shall be provided in the following format:

<u>Description</u>	<u>Column Position</u>	<u>Max. Req. Len.</u>	<u>Req. Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER	1-4	4	PROG	Fixed	Filled
ACTIVITY ID	6-5	10	^	Integer	See Comments Below
ACTUAL START DATE	17-23	7	^	ddmmmyy	Filled if Started
ACTUAL FINISH DATE	25-31	7	^	ddmmmyy	Filled if Finished
REMAINING DURATION	33-35	3	^	Integer	Right Justified
ACTIVITY COST	37-48	12	^	Format 9.2	Right Justified
COST TO DATE	50-61	12	^	Format 9.2	Right Justified
STORED MATERIAL	63-74	12	^	Format 9.2	Right Justified
EARLY START DATE	76-82	7	^	ddmmmyy	Filled if Not Started
EARLY FINISH DATE	84-90	7	^	ddmmmyy	Filled if Not Finished
LATE START DATE	92-98	7	^	ddmmmyy	Filled if Not Started
LATE FINISH DATE	100-106	7	^	ddmmmyy	Filled if Not Finished
FLOAT SIGN	108-108	1	+,-	Fixed	Filled if Not Finished
TOTAL FLOAT	110-112	3	^	Integer	R, Just, if Not Finished

6.h.(1) The RECORD IDENTIFIER shall begin with the four characters "PROG" in the first four columns of the record.

6.h.(2) The ACTIVITY ID for each activity for which progress has been posted shall match the format described in the Activity Record.

6.h.(3) An ACTUAL START DATE is required for all in-progress activities. The ACTUAL START DATE shall be the same as, or later than, the PROJECT START date contained in the Project Record. The ACTUAL START DATE shall also be the same as, or prior to, the DATA DATE contained in the Project Record. If there is an ACTUAL START DATE for an activity that there must also be a REMAINING DURATION, and the values for the EARLY START DATE and LATE START DATE are blank. [Usage note: Some systems allow default values for ACTUAL START DATE if the date is not entered by the user. Because the failure to include a start date for activities may result in different schedule calculations, it is recommended that the ACTUAL START DATE be required for all activities in progress.]

6.h.(4) An ACTUAL FINISH DATE is required for all completed activities. If the REMAINING DURATION of an activity is zero, then there must be an ACTUAL FINISH DATE. If there is an ACTUAL FINISH DATE, then values for the EARLY START DATE, LATE START DATE, EARLY FINISH DATE, LATE FINISH DATE, FLOAT SIGN, and TOTAL FLOAT shall be blank. [Usage note: Some systems allow default values for ACTUAL FINISH DATE if the date is not entered by the user. Because the failure to include a finish date for activities may result in different schedule calculations, it is recommended that the ACTUAL FINISH DATE be required for all activities in progress.]

6.h.(5) A REMAINING DURATION is required for all activities. Activities that have not started shall have a remaining duration equal to their original duration. Activities completed based on time, shall have a zero (0) REMAINING DURATION. [Usage note: Systems have a variety of "short-cut" methods to determine the REMAINING DURATION value. It is recommended that users actually consider the time required to complete the remaining work on a given task, rather than allow a system to calculate the remaining duration based on

the amount of work that has already been accomplished.]

6.h.(6) The ACTIVITY COST contains the estimated earned value of the work to be accomplished in the activity. An example of a number in this format is "1111111 11.11". If decimal places are not needed this field shall still contain a ".00" in the last three columns of this field. [Usage note: Users should inquire of software vendors if the user needs to add a zero in the data field to produce the default value "0.00".]

6.h.(7) The COST TO DATE contains the earned value for the activity. If there is an ACTUAL START DATE, then there must also be some value for COST TO DATE. An example of a number in this format is "111111111.11". If decimal places are not needed, this field shall still contain a ".00" in the last three columns of this field. The COST TO DATE is not tied to REMAINING DURATION. For example, if the REMAINING DURATION is "0", the COST TO DATE may only be 95% of the ACTIVITY COST. This difference may be used to reflect 5% retainage for punch list items. [Usage note: Systems implement cost information in different ways. It is recommended that users carefully review SDEF documentation and test results to determine how to ensure that SDEF data is exported correctly.]

6.h.(8) The STORED MATERIAL field contains the value of the material that the Contractor has paid for and is on site or in secure storage areas that is a portion of the COST TO DATE. An example of a number in this format is "111111111.11". If decimal places are not needed, this field shall still contain a ".00" in the last three columns of this field. [Usage note: Systems implement the stored materials field in a variety of ways. Many systems do not enforce STORED MATERIAL + COST TO DATE < ACTIVITY COST. To avoid potential confusion between systems, it is recommended that new activities be added to a schedule to reflect the cost of large equipment procurement rather than use the STORED MATERIALS field.]

6.h.(9) The EARLY START DATE indicates the earliest date possible that an activity can start as calculated by a CPM scheduling system or other Contracting Officer approved planning method. If the progress record for an activity contains an ACTUAL START DATE, then this field shall be blank.

6.h.(10) The EARLY FINISH DATE indicates the earliest date possible that an activity can finish as calculated by a CPM scheduling system or other Contracting Officer approved planning method. If the progress record for an activity contains an ACTUAL FINISH DATE, then this field shall be blank.

6.h.(11) The LATE START DATE indicates the latest date that an activity can begin as calculated by a CPM scheduling system or other Contracting Officer approved planning method. If the progress record for an activity contains an ACTUAL START DATE, then this field shall be blank.

6.h.(12) The LATE FINISH DATE indicates the latest date that an activity can finish as calculated by a CPM scheduling system or other Contracting Officer approved planning method. If the progress record for an activity contains an ACTUAL FINISH DATE, then this field shall be blank.

6.h.(13) The FLOAT SIGN indicates whether the float time calculated using a CPM scheduling system or other Contracting Officer approved planning method

is positive or negative in nature. If the progress record for an activity contains an ACTUAL FINISH DATE, then this field shall be blank. In the case of zero float this field shall be blank.

6.h.(14) The TOTAL FLOAT indicates the total float time. In the Precedence Diagram Method (PDM), the total float is the difference between the early and late start or finish dates. In the Arrow Diagram Method (ADM), the total float is equal to the late event time at the end of the activity, minus the sum of the early event time at the start of the activity plus the duration of the activity.

6.i. Project End Record: The Project End Record shall be used to identify that the data file is completed. If the ASCII End of File character is encountered, then data import programs shall use that character to infer that the data continues on the next disk. The user shall then be prompted for the next disk number, based on the VOLM record data. The Project End Record shall be the last record of the entire data file, and shall have the following format:

<u>Description</u>	<u>Column Position</u>	<u>Max. Len.</u>	<u>Req. Value</u>	<u>Type</u>	<u>Notes</u>
RECORD IDENTIFIER	1-3	3	END	Fixed	Filled

6.i.(1) The RECORD IDENTIFIER for the Project End Record shall be "END". Data contained in the data exchange file that occurs after this record shall not be used.

-- End of Section --

SECTION 01330

SUBMITTAL PROCEDURES
(CENAN-CO-CQ 02/99)

PART 1 GENERAL

1.1 SUMMARY

This section covers procedures to be used in making submittals called for in the contract documents. In contracts which contain specific "Contractor Quality Control" requirements, the Contractor's Quality Control Representative shall carry out duties associated with submittal procedures.

In contract which do not contain specific CQC requirements, reference to "CQC Representative" shall be interpreted as reference to the Contractor's authorized representative, and references to "CQC Requirements" or "CQC Clauses" shall be interpreted as "requirements or clauses elsewhere in the contract."

1.2 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

SD-19 Operation and Maintenance Manuals

1.3 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.3.1 Government Approved (GA)

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer.

Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.3.2 Information Only (FIO)

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.4 REVIEWER CODES

Reviewer codes on the Submittal Register (ENG Form 4288) are identified as follows:

A - Area Engineer

E - Engineering Division (Design Branch)

AE- Architect/Engineer

1.4 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.5 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.6 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications.

The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 30 calendar days after Notice to Proceed (15 days if construction time is 180 days or less). If the Government supplies the ENG Form 4288 on the Resident Management System (RMS) electronic format, the contractor will be required to process and update the 4288 electronically, and make appropriate electronic submissions to the Government. Otherwise, the Contractor will be given the submittal register as a diskette containing the computerized ENG Form 4288 and instructions on the use of the diskette. In both cases, the Contractor shall update the 4288 electronically, and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time but not more than 45 calendar days) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item. If the contractor is required in another section of the specifications to utilize the RMS system, the contractor will be required to generate and process this form electronically using the RMS system.

3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

3.5.1 Procedures

At the Quality Control Coordination meeting, or preconstruction conference, the Contractor shall ascertain the name and address of each individual, agency, or firm who is designated to normally receive items for approval, for information or samples. The contractor shall complete ENG Form 4025, entering each item requiring a separate approval action as a separate item on the form, for each transmittal. A transmittal may consist of one or more 4025 sheets. The transmittal, consisting of ENG Form 4025 plus all applicable submittals, is then sent to the appropriate individual. On critical items the Contractor is encouraged to confirm receipt via telephone. The Contractor shall submit seven copies of submittals for approval and one for items for information.

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control its procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Four copies of the submittal will be retained by the Contracting Officer and three copies of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

<p>CONTRACTOR</p> <p>(Firm Name)</p> <p>_____ Approved</p> <p>_____ Approved with corrections as noted on submittal data and/or attached sheets(s).</p> <p>SIGNATURE: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>

-- End of Section --

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittal under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effort shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- | | |
|---|---|
| A -- Approved as submitted | E -- Disapproved (See attached). |
| B -- Approved, except as noted on drawings. | F -- Receipt acknowledged. |
| C -- Approved, except as noted on drawings.
Refer to attached sheet resubmission required. | FX -- Receipt acknowledged, does not comply
as noted with contract requirements. |
| D -- Will be returned by separate correspondence. | G -- Other (Specify) |

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

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ARTHUR KILLL CHANNEL, CT 1

AKCONT1

Relative to the "REVIEWER" column of ENG Form 4288
The following codes apply:

E – ENGINEERING DIVISION

A – AREA ENGINEER

AE – ARCHITECT ENGINEER

SUBMITTAL REGISTER

(ER 415-1-10)

CONTRACT NO.

TITLE AND LOCATION															CONTRACTOR					SPECIFICATION SECTION							
ACTIVITY NO	TRANSMITTAL NO.	ITEM NO.	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION		REMARKS				
					DRAWINGS	INSTRUCTIONS	STATEMENTS	CERTIFICATES	SAMPLES	RECORDS	MANUALS	INFORMATION ONLY	GOVERNMENT REVIEW	APPROVAL NEEDED BY		MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE						
																						f		g	h	i	j
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.	
			00800, 1.6c	Pricing Data	X										X												
			00800, 1.8.a,b,c	Claims				X							X												
			00800, 1.16	Fuel Usage Report					X						X												
			00800, 1.24	Breakdown of Contract Work				X							X		A										
			00800, 1.26	Accident Prevention Plan				X							X		A										
			00800, 1.29	Certificate of Inspection						X					X												
			00800, 1.32	Insurance Certificate						X					X												
			00800, 1.37.b	Order of Work for Dredging and Others				X							X												
			00800, 1.41	Safe Practice Manual & Diving Operation Plan				X							X		A										
			01130, 1.6.a	Environmental Protection Plan				X							X		A										
			01320, 1.1	Initial Project Schedule				X							X		A										
			01320, 1.1	Preliminary Project Schedule				X							X		A										
			01320, 1.1	Periodic Schedule Update				X							X		A										
			01320, 1.1	Personnel Qualifications					X						X												
			01320, 1.1	Narrative Report						X					X												
			01320, 1.1	Schedule Report						X					X												

01330-10

SUBMITTAL REGISTER

(ER 415-1-10)

CONTRACT NO.

TITLE AND LOCATION **AK Contract 1**

CONTRACTOR

SPECIFICATION SECTION

ACTIVITY NO.	TRANSMITTAL NO.	ITEM NO.	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL													CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION		GOVERNMENT ACTION		REMARKS
					DRAWINGS	INSTRUMENTS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M	INFORMATION ONLY	GOVERNMENT REVIEW	APPROVAL	REVIEWER	SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE			
																										f.	g.	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.		
			01320, 3.5.1	Data Disks	x										x													
			01320, 3.5.2	Narrative Report					x						x													
			01320, 3.5.4	Schedule Report				x	x							x	A											
			01320, 3.5.5	Network Diagram				x								x	A											
			01420, 2.0	Accident Prevention Plan					x							x	A											
			01420, 5.0	Daily Quality Control Report						x						x												
			01420, 5.0	Daily Inspection Log						x						x												
			01420, 6.4.d	Crane & Derrick Operator's Qualifications										x		x	A											
			01420, 8.0	Monthly Exposure Reports						x						x												
			01420, 10.3	Energized Line Work Plan					x							x												
			01420, 12.0	Safety Meeting Document						x						x												
			01451, 3.2	Quality Control Plan			x									x	A											
			01451, 3.3	CQC System					x							x												
			01451, 3.9	CQC Documentation												x												
			02100, 4	Driller's Log												x	A											
			02100, 6	Samples									x			x												
			02100, 9.2	Equipment			x	x								x												

01330-11

SECTION 01420

SAFETY
nyd 7/01

1.0 **SAFETY:** The contractor shall comply with all applicable Federal, State, and local safety and occupational health laws and regulations. Applicable provisions of the Corps of Engineers manual entitled Safety and Health Requirements Manual EM 385-1-1, dated 3 September 1996 will be applied to all work under this contract.

1.1 **U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385-1-1:** This paragraph applies to contracts and purchase orders that require the Contractor to comply with EM 385-1-1 (e.g. contracts that include the Accident Prevention clause at FAR 52.236-13 and/or other safety provisions). EM 385-1-1 and its changes are available at <http://www.hq.usace.army.mil> (at the HQ homepage, select Safety and Occupational Health and then select Changes to EM). The Contractor shall be responsible for complying with the current edition and all changes posted on the web as set in this solicitation.

2.0 **ACCIDENT PREVENTION PROGRAM:** Within fifteen (15) calendar days after receipt of Notice to Proceed, and at least ten (10) calendar days prior to the Pre-construction Safety Conference, four (4) copies of the Accident Prevention Plan shall be submitted for review and acceptance by the Contracting Officer or the Contracting Officers Representative (COR). The accident prevention program shall be prepared in the format outlined in Appendix A of EM 385-1-1, "Minimum Basic Requirements for Accident Prevention Plan".

3.0 **HAZARD ANALYSIS:** Prior to beginning each major phase of work, an Activity Hazard Analysis shall be prepared by the Contractor performing that work, and submitted for review and acceptance. The format shall be in accordance with EM 385-1-1, figure 1-1. A major phase of work is defined as an operation involving a type of work presenting hazards not experienced in previous operations or where a new contractor or work crew is to perform. (See Contractor Quality Control specification for further guidance regarding coordination of "Activities" and "Principal Steps" indicated in the Activity Hazard Analysis with Contractor Quality Control activities). The analysis shall define the activities to be performed and identify the sequence of work, the specific hazards anticipated, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level. Work shall not proceed on that phase until the activity hazard analysis has been accepted and a preparatory meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activities, including the government on-site representative(s). The activity hazard analyses shall be continuously reviewed and when appropriate modified to address changing site conditions or operations, with the concurrence of the site safety representative, the site superintendent, and the Contracting Officer. Activity hazard analyses shall

be attached to and become part of the accident prevention plan. It may also be developed prior to each phase of work undertaken in the contract. (Sample copies of the ACTIVITY HAZARD ANALYSIS form are provided at the end of this section).

3.1 Hazard analysis shall be used to identify and evaluate all substances, agents, or environments that present hazards and recommend control measures. Engineering and administrative controls shall be used to control hazards; in cases where engineering or administrative controls are not feasible, personal protective equipment may be used.

3.2 Information contained in MSDS (Material Safety Data Sheets) shall be incorporated in the hazard analysis for the activities in which hazardous or toxic materials will be used, or generated (e.g. fiberglass, crystalline silica, metal dust or fume, etc.).

4.0 **SITE SAFETY OFFICER** : The contractor shall identify an individual directly employed by the contractor as Site Safety Officer responsible to the Contractor to implement and continually enforce the Accident Prevention Plan. The site safety officer shall not be the same individual as the Quality Control System Manager if the QQC System Manager is required to have no duties other than Quality Control. The site safety officer shall have the authority to suspend operational activities if the health and safety of personnel are endangered, and to suspend an individual from operational activities for infractions of the Accident Prevention Plan.

4.1. Qualifications: The name, qualifications (training and experience) of the designated Site Safety Officer shall be included in the Accident Prevention Plan. The Site safety officer shall have the following qualifications:

a. A minimum of 5 years construction experience with at least 2 years experience in implementing safety programs at construction work sites for projects of comparable scope and complexity.

b. Documented experience in construction techniques and construction safety procedures.

c. Working knowledge of Federal and state occupational health and safety regulations.

d. Specific training in excavation safety, fall protection, and confined space.

e. CPR/First Aid certification (current)

f. Familiarity with and ability to use and implement the Corps of Engineers Safety Manual EM 385-1-1.

4.2. Other Requirements: Other sections of the contract documents may also require separate specially qualified individuals in such areas as chemical data acquisition, sampling and analysis, medical monitoring, industrial hygiene, quality control, etc.

5.0 **SITE INSPECTIONS:** The site safety officer shall perform daily inspections of the job sites and the work in progress to ensure compliance with EM 385-1-1 and to determine the effectiveness of the accident prevention plan. Daily inspection logs shall be used to document inspections noting safety and health deficiencies, deficiencies in the effectiveness of the accident prevention plan, and corrective actions including timetable and responsibilities. The daily inspection logs will be attached to and submitted with the Daily Quality Control Reports or may be incorporated in the daily CQC report. Each entry shall include date, work area checked, employees present in work area, protective equipment and work equipment in use, special safety and health issues and notes, and signature of the preparer.

6.0 **HIGHLIGHTED PROVISIONS:** In addition to those items contained in EM 385-1-1, Appendix A, include the following items in the accident prevention plan:

6.1 Hard Hat Area. A statement that the jobsite is classified a "hard hat" area from start to finish.

6.2 Sanitation and Medical Requirements. Estimate the greatest number of employees, supervisors, etc., to be working at peak construction period, including subcontractor personnel. Include sanitation requirements and medical facilities identified for the job site. If a medical facility or physician is not accessible within five minutes of an injury to a group of two or more employees for the treatment of injuries, identify at least two or more employees on each shift who are qualified to administer first aid and CPR.

6.3 Equipment Inspection. The type of inspection program on cranes, trucks, and other types of construction equipment the Contractor plans to implement. Who will be responsible for the inspection and how the Contractor will control equipment of sub-contractors and equipment bought to the site by rental companies. Types of records to be kept.

6.3.1 Copies of records of all equipment inspections will be kept at the job site for review by the designated authority.

6.4 Crane & Derrick Operators: Written proof of qualification for all crane and derrick operators in accordance with EM 385-1-1, 16.C.04. Qualification shall be by written (or oral) examination and practical operating examination unless the operator is licensed by a state or city licensing agency for the particular type of crane or derrick. Proof of qualification shall be provided by the qualifying source.

6.5 Critical Lifts: are defined as non-routine crane lifts requiring detailed planning and additional or unusual safety precautions. Critical lifts include lifts made when the load weight is 75% of the rated capacity of the crane; lifts which require the load will be lifted, swung, or placed out of the operator's view; lifts made with more than one crane; lifts involving non-routine or technically difficult rigging arrangement; hoisting personnel with a crane or derrick; or any lift which the lift operator believes should be considered critical.

6.6 Critical Lift Plan: Before making a critical lift, a critical lift plan shall be prepared by the crane operator, lift supervisor, and rigger. The New York District Safety Office Critical Lift Plan shall be completed by the contractor, signed by an officer of the company, and submitted to the Contracting Officer's Representative (COR) for acceptance prior to the lift.

6.7 Haul Road Plan: For every access and haul road, a plan shall be submitted to the Contracting Officer's Representative (COR). The plan shall address the following:

- a. equipment usage, traffic density, and hours of operation;
- b. road layout and widths, horizontal and vertical curve data, and sight distances;
- c. sign and signal person requirements, road markings, and traffic control devices;
- d. drainage controls;
- e. points of contact between vehicles and the public; and safety controls at these points of contact; and
- f. maintenance requirements, including roadway hardness and smoothness and dust control.

7.0 **ACCIDENT REPORTS:** The contractor shall immediately report all accidents by telephone to the COR.

7.1 The Contractor will provide an initial written report of the accident to the COR within 24 hours. The Contractor shall complete and submit ENG Form 3394 for all accidents involving lost work time, medical treatment, and/or property damage in excess of \$2000.00 within 48 hours of the accident. The report shall accurately represent the circumstances of the accident, cause of the accident, extent of medical treatment, extent of injuries and steps to prevent occurrence of similar accidents. The hazard analysis covering the work activity being undertaken during the accident shall be attached to the report.

7.2 Daily records of all first aid treatment not otherwise reportable shall be maintained at the job site and furnished to the designated authority upon request. Records shall also be maintained of all exposure and accident experience incidental to the work (OSHA Form 200 or equivalent as prescribed by 29 CFR 1904).

8.0 **MONTHLY EXPOSURE REPORTS:** The Contractor shall submit to the COR no later than the 1st day of each month, a compilation of manhours worked each month by the prime contractor and each subcontractor. In addition, the contractor shall report the number of accidents, severity, class of accidents, and lost time work days for each month.

9.0 **CLEAN-UP:** The Contractor's Accident Prevention Plan shall identify the individual's responsible for cleanup and shall establish a regular housekeeping procedure and schedule. If the COR determines that cleanup is not being performed satisfactorily, the Contractor shall establish a work crew to perform the continuous cleanup required by the contract clause titled: CLEANING UP: The number of individuals appointed to the cleanup work crew shall be increased as required in order to render adequate

cleanup.

10.0 **FOCUS AREAS:** To supplement and emphasize the requirements of EM 385-1-1, the following is provided and shall be met as applicable.

10.1 Electrical Work: Electrical work shall not be performed on or near energized lines or equipment unless specified in the plans and specifications and approved by the COR. Plan and layout of proposed temporary power to the construction site shall be submitted and approved by the COR before work will be permitted.

10.1.1 Upon request by the Contractor, arrangements will be made for de-energizing lines and equipment so that work may be performed. All outages shall be requested through the COR a minimum of 14 days, unless otherwise specified, prior to the beginning of the specified outages. Dates and duration will be specified.

10.2 If approved by the COR, the following work may be performed with the lines energized using certified hot line equipment on lines above 600 volts, when the following conditions have been met:

- a. work below the conductors no closer than the clearance required in EM 385-1-1 from the energized conductors.
- b. setting and connection of new pre-trimmed poles in energized lines which do not replace an existing pole.
- c. setting and removing transformers or other equipment on poles.
- d. installation or removal of hot line connectors, jumpers, dead-end insulators for temporary isolation, etc., which are accomplished with hot line equipment from an insulated bucket truck.

10.3 Energized Line Work Plan: The Contractor shall submit a plan, in writing, describing his/her method of operation and the equipment to be used on energized lines. Proper certification from an approved source of the safe condition of all tools and equipment will be provided with the plan. The work will be planned and scheduled so that proper supervision is maintained. Emergency procedures, including communication, for disconnecting power in the event of an accident will be outlined in the plan. The Contractor will review his/her plan with the COR prior to being granted permission to perform the work.

10.4. No work on lines greater than 600 volts will be performed from the pole or without the use of an insulated bucket truck.

10.5 No work will be done on overbuilt lines while underbuilt lines are energized, except for temporary isolation and switching.

10.6 Electrical Tools and Cords: Hand held electrical tools shall be used only on circuits protected by ground fault circuit interrupters for protection of personnel. All general use extension cords shall be hard usage or extra hard usage as specified in Table 11-1 of EM 385-1-1. Damaged or repaired cords shall not be permitted.

10.7 Temporary Power: Temporary electrical distribution systems and devices shall be checked and found acceptable for polarity, ground continuity, and ground resistance before initial use and after modification. GFI outlets shall be installed and tested with a GFI circuit tester (tripping device) prior to use. Portable and vehicle mounted generators shall be inspected for compliance with EM 385-1-1 and NFPA 70. All electrical equipment located outdoors or in wet locations shall be enclosed in weatherproof enclosures in accordance with EM 385-1-1. Records of all tests and inspections will be kept by the contractor and made available on site for review by the designated authority. Submit sketch of proposed temporary power for acceptance.

10.8 Rollover Protective Structures (ROPS): Seat belts and ROPS shall be installed on all construction equipment as required by paragraph 16.B.12 of EM 385-1-1. The operating authority will furnish proof from the manufacturer or licensed engineer that ROPS meets the applicable SAE standards cited in EM 385-1-1, pg. 257.

10.9 Radiation Permits or Authorizations: Contractors contemplating the use of a licensed or DOD regulated radiological device or radioactive material on a DOD installation will secure appropriate permit or authorization from the Department of Army or Department of the Air Force, as applicable. A 45-day lead-time should be programmed for obtaining the necessary authorization or permit. When requested, the COR will assist the Contractor in obtaining the required permit or authorization.

10.9.1 The Contractor shall develop and implement a radiation safety program to comply with EM 385-1-1, Section 06.E. Provisions for leak tests, authorized personnel, transport certificates, etc. will be addressed in the radiation safety program.

10.10 Elevating Work Platforms: All elevating work platforms shall be designed, constructed, maintained, used, and operated in accordance with ANSI A92.3, ANSI A92.6, ANSI A92.5 and EM 385-1-1, Sections 22.J and 16.A.

10.10.1 Only personnel trained in the use of elevating work platforms shall be authorized to use them. A list of authorized users will be maintained by the contractor at the job site. The list will be updated to remain current and made available for review on site by the designated authority. Personnel safety belts must be worn.

10.11 Fall Protection: Fall protection in the form of standard guardrails, nets, or personal fall arrest systems will be provided for all work conducted over 6 feet in height. The contractor will submit his/her proposed method of fall protection to the COR as part of the Job Hazard Analysis for acceptance. If the contractor deems that conventional fall protection as described above is not feasible, or creates a greater hazard, the Contractor will prepare a written fall protection plan in accordance with OSHA 29 CFR 1926.502(k). The plan will demonstrate the reasons that conventional fall protection is unfeasible or constitutes a greater hazard and will provide alternative safety measures for review and acceptance by the COR.

10.12 Excavations: All open excavations made in the earth's surface four (4) foot or greater will be under the supervision of a competent person trained in, and knowledgeable about, soils analysis, the use of protective systems, and the requirements of OSHA 29 CFR 1926, Subpart P and EM 385-1-1, Section 25. The competent person shall be designated in writing by the Contractor and a resume of their training and experience submitted to the COR for acceptance.

10.12.1 Excavations hazards and methods for their control will be specified in the job hazard analysis.

10.12.2 Sloping and benching: The design of sloping and benching shall be selected from and in accordance with written tabulated data, such as charts and tables. At least one copy of the tabulated data will be maintained at the job site.

10.12.3 Support Systems: shall be in accordance with one of the systems outlined in a through c below:

a. Designs drawn from manufacturer's specifications and in accordance with all specifications, limitations, and recommendations issued or made by the manufacturer. A copy of the manufacture's specifications, recommendations, and limitations will be in written form and maintained at the job site.

b. Designs selected from and in accordance with tabulated data (such as tables and charts). At least one copy of the design shall be maintained at the job site during excavation.

c. Designed by a registered engineer. At least one copy of the design shall be maintained at the job site during excavation.

10.12.4 Excavations Greater than 20 Feet in Height: Sloping and benching or support systems shall be designed by a registered professional engineer. Designs shall be in writing and at least one copy of the design shall be maintained at the job site during excavation. The contractor will ensure that the registered professional engineer is working within a discipline applicable to the excavation work; i.e. it would be inappropriate for an electrical engineer to approve shoring designed for an excavation.

10.13 Confined Space: The Contractor shall develop detailed written standard operating procedures for confined spaces in accordance with 29 CFR 1910.146 and EM 385-1-1, and as further described in this paragraph:

a. The contractor shall supply certificate of calibration for all testing and monitoring equipment. The certificate of calibration shall include: type of equipment, model number, date of calibration, firm conducting calibration, and signature of individual certifying calibration.

b. The procedures shall include methods of inspection of personal protective equipment prior to use.

c. The procedures shall include work practices and other engineering controls to reduce airborne hazards and other potential hazards

(i.e. engulfment, hazardous energy, etc.) to a minimum.

10.14 Control of Hazardous Energy: Before any servicing or maintenance on a system where the unexpected energizing, start-up, or release of kinetic or stored could occur and cause injury or damage, the system shall be isolated in accordance with EM 385-1-1, Section 12 "Control of Hazardous Energy (Lockout/tagout)".

10.14.1 Hazardous Energy Control Plan: Contractor's planning the use of hazardous energy control procedures shall submit their hazardous energy control plan to the Contracting Officer Representative (COR) for acceptance. Implementation of hazardous energy control procedures shall not be initiated until the hazardous energy control plan has been accepted by the COR.

11.0 **LANGUAGE:** For each group that has employees that do not speak English, the Contractor will provide a bilingual foreman that is fluent in the language of the workers. The contractor will implement the requirements of EM 385-1-1, 01.B through these foremen.

12.0 **CONTRACTOR SAFETY MEETINGS AND DOCUMENTATION:** Contractor shall conduct and document safety meetings among its personnel as required by EM 385-1-1 and as indicated herein. Monthly meetings shall be held among all supervisors, and weekly meetings shall be conducted by supervisors or foreman for all workers. The agenda of the meeting shall include specific safety items pertinent to work being performed. Documentation shall include a summary of items discussed as well as other items required by the EM 385-1-1. Documentation shall be submitted to the Government monthly.

13.0 **COORDINATION WITH OTHER SPECIFICATION SECTIONS:** The requirements of this section are meant to supplement requirements of other sections. In cases of discrepancies the most stringent requirements shall apply. Other safety-related requirements can be found in the following specification section:

- a. Specification Section 00800, Special Contract Requirements

14.0 **CONTRACTOR PERFORMANCE APPRAISAL:** The occurrence of accidents and near misses due to negligence are strong indications that there has been insufficient emphasis on effective implementation and/or commitment to the accident prevention program. Should it become obvious that only lip service is being given to this program, an interim unsatisfactory performance appraisal rating will be issued. If safety continues to be unsatisfactory or marginal, the unsatisfactory rating will become final. The contractor should be aware that this appraisal will be stored in a national computer database which can be accessed by a multitude of agencies or municipalities desiring information on prospective contractors. An unsatisfactory rating in this database may affect the contractor's ability to obtain future Government work.

-- End of Section --

SECTION 01451

CONTRACTOR QUALITY CONTROL

(NYD EDITION 12/99)

PART 1 GENERAL

1.1 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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740 (1996) Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM E 329 (1995b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause entitled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and off site, and shall be keyed to the proposed construction sequence. For purposes of this section the term "construction" shall include all items of work, activities, materials and equipment as indicated in the contract documents. Other sections of the contract documents may also require separate, specially qualified individuals in such areas as chemical data acquisition, sampling and analysis, medical monitoring, industrial hygiene, safety officer, etc. The QQC organization will coordinate the activities of these individuals. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The

project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause entitled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. The Government will consider an interim plan for the first 90 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and off site, including work by subcontractors, fabricator, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to an officer in the Contractor's organization above the Project Superintendent, who is responsible for both quality and production.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function. Clear indication that CQC System Manager will have no duties other than Quality Control.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters will also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off site fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible

for each test. (Laboratory facilities will be approved by the Contracting Officer.) The Contractor shall incorporate all tests required by the contract (including systems commissioning and operating tests) to derive the above list of testing information which shall be presented in matrix form as part of the CQC Plan. This matrix shall be suitable for use by the Contractor and the Government as a checklist to control testing to be done on the contract. Coordinate any additional test submission or plan requirements for Mechanical and Electrical Systems with appropriate specialized specification section if applicable.

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation. Provide matrix of Preparatory and Initial Inspections including specification reference paragraph, the name of the Definable Feature of Work, and spaces for date performed, results, and names of attendees.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks and has separate control requirements. It could be identified by different trades or disciplines, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there is frequently more than one definable feature under a particular section. This list will cover all features of work on the project, and will be agreed upon during the coordination meeting.

j. A brief explanation of the duties of the CQC organization with respect To safety. Note that separate Accident Prevention Plan and Hazards Analysis is required for submission and acceptance.

k. Contractor's plan for training all CQC personnel in the CQC System.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 14 calendar days prior to the Coordination Meeting. The initial plan submitted must be found acceptable by the Government before the Coordination Meeting can be held. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and off site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The number of CQC personnel shall be increased as required during times of high construction workload. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within his organization at the site of the work who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The Contractor shall identify the CQC System Manager for each duty work if construction is scheduled on a 24-hour basis. The CQC System Manager shall be a graduate engineer, graduate architect, or a graduate of construction management, or shall hold a state Professional Engineer's license, with a minimum of 2 years construction experience on construction similar to this contract, one year of which as a Quality Control Representative. The CQC Manager may also be a construction person with a minimum of 4 years in related work, one year of which as a QC Representative.

This CQC System Manager shall be on the site at all times during construction and will be employed by the prime Contractor. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate will be the same as for the designated CQC System Manager. The CQC System Manager shall be assigned no duties other than Quality Control. The CQC System Manager or his alternate shall be on the floating plant at all times during construction.

3.4.3 Organizational Expertise

The CQC organization, which includes the CQC System Manager and additional qualified personnel, must as a minimum possess general corporate technical knowledge of all aspects of the project, and must successfully execute the CQC System on all aspects of the project. Individuals possessing experience in specialized areas shall be added to the organization as required during periods when such specialty areas are being executed. Examples of such specialized areas include marine operations, marine safety, dredging and disposal, underwater rock drilling and blasting, seismic and noise monitoring, blasting safety, marine diving, hydrographic surveying, chemical data acquisition and testing. The Contractor must demonstrate that such additional qualified personnel have received sufficient training and indoctrination into the CQC system, and that these personnel properly execute the requirements of the CQC System within their areas of expertise.

3.4.4 Additional Requirement

In addition to the above experience and education requirements the CQC System Manager shall have completed within the last five years the course entitled "Construction Quality Management for Contractors". This course is given at a cost of \$25 by Government personnel and is of two-day duration. The Government will provide one instruction manual for the course.

3.4.5 Organizational Changes

The Contractor shall maintain the CQC Organization at full strength at all times. When it is necessary to make changes to the organization, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS

Submittals shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements and are submitted in accordance with the date on the submittal register. CQC personnel shall also make physical checks of materials and equipment before installation to insure compliance with approved shop drawings.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, is complied with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work after all required plans/documents/materials are approved/accepted, and after copies are at the worksite, and shall include:

- a. A review of each paragraph of applicable specifications.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met per EM 385-1-1, "Safety and Health Requirements Manual".
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase meeting. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall clearly indicate its intent and plan for communication of the results of the preparatory phase to applicable workers, to include materials, construction methods, workmanship standards, safety considerations and procedures, and preparatory phase meeting minutes.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work (DFW) when the accomplishment of a representative sample of the work is impending. The following shall be accomplished:

- a. A check of the portion of work done to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance.

Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least 48 hours in advance of beginning the initial phase meeting. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), the foreman responsible for the definable feature and the work crew(s) for the appropriate DFW. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location (i.e. CQC Report number) of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon or conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable feature of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, onsite production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.6.5 Definable Feature of Work: Definition and Discussion

A Definable Feature of Work (DFW) is a portion of work consisting of materials, equipment, supplies and procedures which are closely related to each other, have the same control and will be accomplished by the same work crew to completion. A DFW must be sufficiently small so that control of the work (i.e. communication of requirements to workers, inspection of materials and workmanship and correction of deficiencies) will be easily accomplished. Some examples are:

* marine operations

- * marine safety
- * underwater rock drilling and blasting
- * seismic monitoring
- * blasting safety
- * marine diving
- * hydrographic surveying
- * soil and rock core sampling and testing
- * Preparation, removal and disposal of contaminated material
- * Dredging and placement.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a laboratory which has been assurance inspected by the Corps of Engineers within the last two years. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, will be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test will be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an off site or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment and calibration in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils and rock shall meet criteria detailed in ASTM D 3740 and ASTM E 329. The Government requires a Corps of Engineers capability check of the laboratory which the contractor proposes to perform tests on soils and rock. If the laboratory proposed has not had the required Corps of Engineers capability check within the the last two years, it will be performed by the Corps of Engineers at a cost of \$7200 to the Contractor. This cost will be paid by the Contractor via check directly to the Corps of Engineers Laboratory performing the inspection and report.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$7200 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory.

3.7.3 On-Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials will be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Corps of Engineers Division Laboratory, as designated by the Government Representative. Coordination for each specific test, exact delivery location and dates will be made through the Area Office.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Special Contract Requirement paragraph entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected.

The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished the

Contractor shall notify the Government that the facility is ready for the Government's "Pre-final" inspection.

3.8.2 Pre-Final Inspection

The Government will perform this inspection to verify that the channel construction is complete and ready to open to ship traffic. A Government "Pre-Final Punch List" will be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected and so notify the Government so that a "Final" inspection with the customer can be scheduled. Any items noted on the "Pre-final" inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph will be accomplished within the time slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person and the Contracting Officer's representative will be in attendance at this inspection. Additional Government personnel including, but not limited to, those from U.S. Coast Guard personnel, and safety officer may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final Inspection. Notice will be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being acceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the Special Contract Requirements entitled "Final Examination and Acceptance".

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be

identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals reviewed, with contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. "N/A" shall be entered into any field for which no entry is intended. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 16 hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel. All documentation is expected to be literate, legible and complete.

3.10 SAMPLE FORMS

(Note: If the Resident Management System (RMS) is required to be used by the contractor for the QC System as indicated elsewhere in this contract, Contractor will generate all reports in the RMS System, and attached forms will serve as guidance only. Otherwise forms contained herein will be used by the by CQC Staff for CQC System reporting).

a. The 2-page form at the end of the section will be used for the basic CQC Report. CQC personnel shall attach continuation sheets as required for any entries which cannot fit on the basic form. Preparatory and Initial Inspections, when performed, shall be indicated on the basic CQC report and minutes for each inspection shall be attached. Minutes will consist of a list of specific requirements for materials, procedures or equipment to be employed and shall also include any understandings reached or items of special importance discussed.

b. In addition, outstanding deficiencies such as shoals and removal of signs and buoys shall be listed on the form "List of Outstanding Deficiencies" at the end of this section and shall be attached to each CQC report. As deficiencies are corrected, they are to be acknowledged on the basic CQC report and shall be deleted from the list.

c. Form at the end of this section entitled "CQC Test Report List" shall be used by the Contractor to track testing to be done as the project progresses, and also to summarize the Contractor's Quality Control testing to be reported on the CQC Plan.

d. Form "Record of Preparatory and Initial Inspections" at the end of this section shall be used by the Contractor to track Preparatory and Initial inspections as the project progresses and also to summarize these required inspections as part of the CQC Plan.

e. Additional reporting forms pertaining to specialized activities may be included herein or elsewhere in the contract, and shall be used for reporting as indicated.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. Deficiencies cited and verbal instructions given to the Contractor by the Government Representative shall be entered into that day's CQC Report.

(FORMS FOLLOW)

-- End of Section --

RECORD OF PREPARATORY AND INITIAL INSPECTIONS

DATE OF INSP	TYPE OF INSP	DEFINABLE FEATURE OF WORK (DESCRIBE)	REPORT NOS		PERSONS ATTENDING INSP	WAS MATL&/OR EQUIPMENT PHYSICALLY INSPECTED ?
			QA	QC		

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LIST OF OUTSTANDING DEFICIENCIES

SH _____ OF _____

DATE: _____

PROJECT TITLE: _____

CONTRACTOR: _____

LOCATION: _____

CQC REPORT# _____

CONTRACT #: _____

SPEC REF OR DWG#	LOCATION ON PROJECT	DESCRIPTION OF DEFICIENCY	DATE FOUND	DATE TO BE CORRECTED	DATE CORRECTED	REMARKS

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NOTE: THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK OUTSTANDING CONSTRUCTION DEFICIENCIES

CQC TEST REPORT LIST

CQC REPORT# _____ SH _____ OF _____

DATE: _____

CONTRACTOR: _____

CONTRACT #: _____

PROJECT TITLE: _____

LOCATION: _____

SPEC REF OR DWG#	TYPE OF TEST	DATE PERFORMED	RESULTS	REMARKS

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NOTE: THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK CQC TESTING. PROVIDE ATTACHMENTS AS REQUIRED.

1. Project Title: _____

Location: _____ Contract No.: _____

2. List Contractors and Subs Working This Day and Areas of responsibility of each

3. Weather: _____

4. Description and Location of Work of the Project (Also indicate days of no work and reasons for delay)

5. Labor and Equipment Breakdown by Trade (Attach Continuation)

6. Preparatory Phase Inspections Held (See Attached Minutes)

7. Initial Phase Inspections Held (See attached minutes)

SECTION 02100

SUBSURFACE DRILLING AND SAMPLING

1. SCOPE. The purpose of the work specified herein is to determine the type, nature, and characteristics for the subsurface materials and the extent and conditions of the various materials as they exist to the depths and at the locations specified. This is to be accomplished by means of drive sample boring and core drilling.

"1.1 Reference Publication: Standard Specification for Subsurface Exploration and Field Testing, Department of the Army, Corps of Engineers, New York District, October 1980."

2. LOCATIONS OF HOLES. The actual locations will be established in the field by the Contracting Officer.

3. ORDER OF WORK. The order in which the work is to be accomplished will be determined in the field by the Contracting Officer.

4. RECORDS. The Contractor shall keep accurate driller's logs and records of all work accomplished under this contract and shall deliver complete, legible copies of these logs and records to the Contracting Officer upon completion of the work or at such other time or times as he may be directed. All such records shall be preserved in good condition and order by the Contractor until they are delivered and accepted, and the Contracting Officer shall have the right to examine such records at any time prior to their delivery to him. Separate logs shall be made for each hole. The following information shall be included on the logs or in the records for each hole:

- Horizontal locations.
- Hole number or designation and elevation of top of hole.
- Make and manufacturer's model designation of drilling equipment.
- Type of drilling and sampling operation by depth. Dates and time by depths when drilling and sampling operations were performed.
- Time required for drilling each run.
- Depths at which samples or cores were recovered or attempts made to sample or core including top and bottom depth of each run.
- Unified soils classification or description by depths of the materials sampled, cored, or penetrated including a description of moisture conditions and of conditions of compactness or stiffness of soils materials encountered. This classification or description shall be made immediately following the taking of the samples or cores.
- Indication of penetration resistance such as casing blows given in blows per foot and sample drive-hammer blows given in blows per 6 inches for driving sample spoons.
- Percentage of sample or core recovered per run. Depths at which drill water is lost and regained and amounts.
- Depth of bottom of hole.
- Fracture location, frequency, angle and description of fracture surface.

4.1 The Contractor shall employ the services of a soil engineer/geologist

with a minimum two years experience in subsurface exploration field inspection. The inspector shall note on all logs the tide, depth of water, and time tide reading in order to determine mean low water.

4.2 The presence of a Government representative or the keeping of separate drilling records by the Contracting Officer shall not relieve the Contractor of the responsibility for the work specified in this paragraph. Payment will not be made for any work for which the required records have not been furnished by the Contractor.

5. CONTAINERS. The Contractor shall furnish jars, tubes, boxes, and crates meeting the requirements as specified elsewhere in this specification. All such containers will become the property of the Government and the cost thereof shall be included in the unit price payment for the contract.

6. CARE AND DELIVERY OF SAMPLES. The Contractor shall be solely responsible for preserving all samples in good condition. He shall keep samples from freezing and from undue exposure to the weather, and shall keep all descriptive labels and designations on sample jars and boxes clean and legible until final delivery of sample to, and acceptance by, the Contracting Officer. The Contractor shall comply with all requests of the Contracting Officer concerning the care and protection of samples. Except as otherwise specified, the Contractor shall deliver samples to the Corps of Engineers, U.S. Army, New York District Warehouse, Caven Point, N.J. Samples shall be delivered as directed by the Contracting Officer.

7. SUPPLEMENTARY DRILL HOLES. Drill holes that are abandoned or from which unsatisfactory samples or cores are being obtained will be supplemented by other drill holes adjacent to the original in order that satisfactory samples or the required information will be obtained. Penetration to the depth where the original drill hole was abandoned or to the depths where unsatisfactory samples were obtained may be made by any method selected by the Contractor that in the opinion of the Contracting Officer will permit satisfactory completion and sampling below the elevation where the last satisfactory sample was obtained in the abandoned drill hole. No payment will be made for supplementary drill holes that are required to be drilled to replace drill holes that were abandoned or from which satisfactory samples were not obtained because of mechanical failure of drilling and sampling equipment, negligence on the part of the Contractor, or other preventable cause for which the Contractor is responsible.

8. DRIVE SAMPLE BORING AND SAMPLING.

8.1 Definition and Purpose. A drive sample boring shall be any boring made through unconsolidated or partly consolidated sediments or decomposed rock by means of mechanically driven sample drill spoons. The purpose of these borings is to obtain knowledge of the composition, the thickness, the depth, the sequence, the structure, and the pertinent physical properties of foundation or borrow materials.

8.2 Equipment and Supplies. Equipment to be furnished by the Contractor for making drive sample borings shall include Standard Penetration Test, 2-inch split barrel, drive samplers and power-driven core drilling machinery of a type or types approved by the Contracting Officer, complete with standard

drive-hammer of 140 pounds weight and all other accessories for taking samples of soil, hardpan, cinders and decomposed rock at the locations directed by the Contracting Officer. All drill holes will be carried to -55 feet MLW unless refusal is encountered above -55 feet MLW. If refusal is encountered above -55 feet MLW, a diamond core will be taken, -55 feet MLW, in accordance with the provisions of paragraph 9. Unless otherwise specified, drilling machinery shall be of the "hydraulic feed" type. Supplies shall include all casing, piping, pumps, and power necessary to accomplish the required boring and sampling.

8.3 Sample Jars and Labels. Sample jars shall be 1-pint capacity, wide-mouth (over 2-1/4 inches in diameter) glass jars with moisture-tight screw tops. Each jar shall contain a printed or typewritten label giving the following information:

Project _____ Location _____
 (AK Nav Project) (Such as Bergen Point)

Hole No. _____ Station _____

Jar No. _____ of _____ Jars Date _____

Top Elevation of Hole _____ Blow/6 inch _____, _____, _____

Depth of Sample _____

Description of Material _____
 (Such as "Moist, silty, medium sand")

8.4 Shipping Boxes. Cartons used for storage and shipment of jars shall be water resistant cardboard.

8.5 Procedure. Test holes drilled through overburden shall be suitably cased to permit obtaining samples of the size or sizes specified or as directed. Samples shall be taken continuously using Standard Penetration Test procedures. The sample spoon shall be driven with the force of the drive hammer under a free fall of 30 inches. To minimize the compacting effect of casing driving, the bottom of the casing shall be kept as high above the soil zone to be sampled as conditions permit. The samples shall be placed in the sample jars as soon as possible after they are taken from the hole in order that the natural moisture content of the material may be retained to the fullest extent. All samples shall be labeled. In general, no sample shall remain at the site of boring for more than one week after being taken from the hole.

9. DIAMOND CORE DRILLING - NX

9.1 Method of Drilling. Drilling of NX cores shall be by any approved standard and accepted method of rotary rock core drilling using diamond-set coring bits by means of which continuous and complete rock cores of standard diameter for the respective bit size may be obtained for any subsurface interval of bedrock specified for investigation. The method shall provide equally good recovery of cores from both hard and soft rocks.

9.2 Equipment and Supplies. Equipment to be furnished by the Contractor for core drilling shall include diamond core-drilling machinery of a type or types approved by the Contracting Officer complete with all accessories for taking continuous rock cores of a diameter consistent with bit size to the depths specified. The Contractor shall use a standard ball-bearing, swivel-type, double-tube core barrel similar in construction and equal in performance to Sprague and Henwood "M" series or E.J. Longyear "L" series, equipped with diamond-set bottom-discharge core bits and standard core lifters. Supplies for core drilling to be furnished by the Contractor shall include all casing, drill rods, core barrels, diamond-set coring bits, piping, pumps, water, tools, and power required for drilling and all boxes and containers required for core samples. Bits shall be set with the proper size stones for the kind of rock being drilled.

9.3 Procedure. All holes shall be drilled vertically to -55 feet MLW or as directed by the Contracting Officer. Casing through the overburden shall be seated tightly on the rock at the elevation where rock is encountered prior to commencement of rock coring. The Contractor shall operate his drills at such speeds and with such water pressures as will insure maximum core recovery in whatever kind of rock is being drilled. Where soft or broken rocks are encountered, the Contractor shall reduce the length of "runs" to 5 feet or less in order to reduce core loss and core disturbance to the minimum. Failure to comply with the foregoing procedures shall constitute justification for the Contracting Officer to require redrilling at the Contractor's expense of any boring from which the core recovery is unsatisfactory. The Contractor shall exercise particular care in recording water losses, rod jerks, and other unusual coring experiences that, supplementing the core record, will throw light on the nature and the extent of any fracturing. Fractures and their estimated width shall be marked in the core boxes.

9.4 Containers. Longitudinally partitioned wooden core boxes constructed of pressed lumber or other approved material in general accordance with the arrangement and dimensions shown in Figure 1 shall be used for all rock cores. As many core boxes as may be required shall be used in submitting each rock core or group of cores. Core boxes shall be completely equipped with all necessary partitions, covers, hinges, screws for holding down the cover, rust-proof metal identification plates, tags, and other accessories.

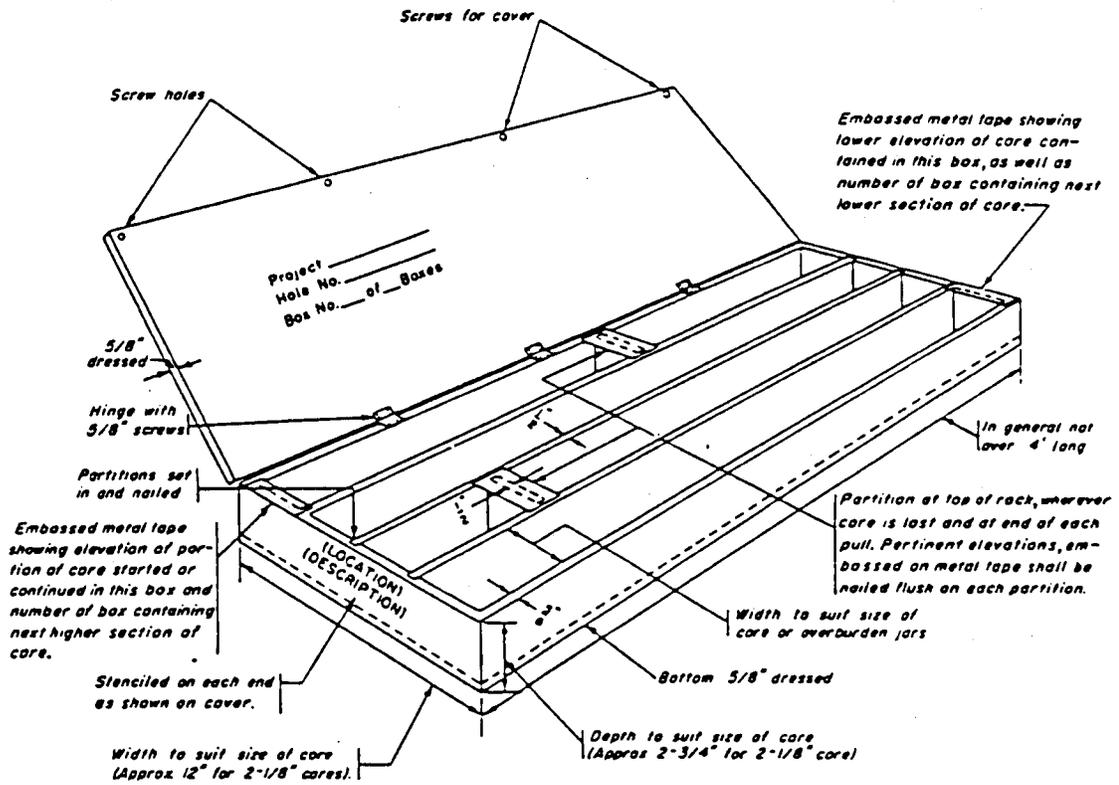
9.5 Arrangement. All cores shall be arranged neatly in the partitioned boxes in the same sequence in which they occurred before removal from the hole. Facing the open box with the hinged cover above and the open box below, cores shall be arranged in descending sequence beginning at the left end of the partition nearest the hinges and continuing in the partitions from left to right. The highest core shall be placed in box 1, and lower portions of the core shall be placed in the other boxes in consecutive order.

9.6 Disposition of Samples. Upon completion of core drilling and sampling operations, core boxes containing cores shall be shipped in accordance with directions furnished by the Contracting Officer. The Government will bear the cost of all warehousing required for the permanent storage of core boxes and racks.

9.7 MEASUREMENT AND PAYMENT

Measurement and Payment shall be in accordance with the applicable paragraphs in Section 01270: MEASUREMENT AND PAYMENT.

-- End of Section --



NOTE Labels for core box will be placed on outside and inside of cover and outside on each end. Labels may be either by stencils or by embossed metal tape, in the form shown above on the box cover.

CORE BOX

SECTION 02200

BLASTING

1.0 BLASTING REGULATIONS, CONTROLS AND RESPONSIBILITIES

1.1 General. When the nature of the material to be dredged requires blasting, the Contractor's blasting progress and methods shall be those necessary to accomplish the excavation shown on the contract drawings in accordance with the procedures specified herein. The Contractor will be required to make necessary plans, examinations, surveys, and test blasts to determine the quantity of explosives that can be fired without damaging property, and to thereafter control the quantity of explosives fired in any one blast to prevent injuries to persons or damage to structures, homes, utilities, vehicles, vessels moored or underway, or any property. The Contractor's blasting program shall abide by, but not be limited to, the following applicable codes and regulations:

- Title 29 Code of Federal Regulations Part 1926, Safety and Health Regulations for Construction.
- Federal Occupation Safety and Health Act of 1970.
- Army Corps of Engineers EM-385-1-1, Safety and Health Requirements Manual.
- Institute of Makers of Explosives (IME); Safety Publications.
- New York City Fire Department Guidelines for Blasting Contractors.
- Article 4, Chapter 27-4031, New York City Fire Department Fire Prevention Code.
- Part 39, of Title 12 of the Official Compilation of Codes, Rules, and Regulations of the State of New York, 12 NYCRR Part 39, Possession, Handling, Storage and Transportation of Explosives.
- New Jersey Administrative Code (N.J.A.C. 12:190).

1.2 Liabilities. The Contractor's attention is called to the Contract Clause entitled "Permits and Responsibilities", which defines the Contractor's responsibilities relative to the references listed in paragraph 1.1. The Contractor shall assume all liability and hold and save the Government and the Port Authority, its officers, agents, and employees harmless for any and all claims for personal injuries, property damages, or other claims arising out of, or in connection with, the transportation, storage, and use of explosives under the contract.

1.2.1 The Contractor shall, in addition, process any and all claims of private citizens arising out of said use of explosives promptly; in particular, all property damage claims shall be acknowledged by the Contractor, or his representative, and be submitted immediately to the Contracting Officer (CO) providing name of claimant, location, time and description of alleged damage, and estimated value. The claimed damage will be inspected by the Blasting Vibration Consultant (see paragraph 4.3) within 48 hours following initial notification, and processed to a conclusion (honored, denied, or compromised) within 90 days after cessation of all blasting on the contract; but, in no case shall the claims remain unresolved

for a period exceeding 6 months (180 calendar days). The Contractor shall submit inspection results and actions taken to the Contracting Officer on a weekly basis.

1.3 Transportation, Storage, and Use of Explosives. The Contractor will be held responsible to perform the work in compliance with all applicable Federal, State, and local codes and regulations, including, but not limited to, those cited above in paragraph 1.1. The Contractor shall have available the documents for inspection at all times, which will pertain to the blasting operation. In case of conflict between codes and regulations, the more stringent will apply.

1.3.1 Daily Summary. The Contractor shall keep a daily record of transactions, to be maintained at each storage magazine. The inventory records shall be updated at close of business each day and furnished to the CO on a weekly basis. Records shall show class and quantities received and issued, and total remaining on hand at end of each day. The remaining stock shall be checked each day, and any discrepancies that would indicate a theft or loss of explosive materials shall be reported immediately. The daily summary shall be done in accordance with the applicable regulations cited in paragraph 1.1. Copies of the daily inventory records shall be furnished with the daily Quality Control Report.

1.3.2 Report of Loss. Should a loss or theft of explosives occur, all circumstances and details of the loss/theft will be immediately reported to the nearest office of the ATF, as well as to the local and State law enforcement authorities and the Contracting Officer. The local Bureau of Alcohol, Tobacco, and Firearms office addresses are:

300 Coffey Street
Brooklyn, NY 11231
Telephone: 718-254-7845

60 Park Place
Newark, N.J. 07102
Telephone: 201-645-2135

The Explosives Unit of the NYFD should be contacted at the following address:

Explosives Unit, City of New York Fire Department
9 Metrotech Center
Brooklyn, NY 11201
(718) 999-1519

1.4 Responsibility. The Contractor shall be responsible for obtaining all licenses, permits, any and all fees, and the keeping of accounts and records, as well as arranging the transportation and protection of all explosives on the project. Should the Contractor fail to comply with above requirements, the Contracting Officer may order a suspension of that part of work involved until the deficiencies are corrected. The Contractor's attention is also directed to subparagraph 1.2 "Liabilities" for additional specific liability to be assumed by the Contractor. The Contractor must supply to the Contracting Officer all permits, licenses and approvals which are necessary for this contract as required by the regulations cited in paragraph 1.1.

1.5 Pre blast Public Information Meetings.

1.5.1 The Contractor shall schedule, publicize, coordinate, secure adequate facilities for, and conduct two Pre blast Public Information Meetings prior to finalizing his Operational Blasting Plan. One meeting shall be held in Elizabeth, N.J. and one in Staten Island, N.Y. As a minimum, the meetings shall be publicized in advertisements in local newspapers, including the Star Ledger, the Jersey Journal and the Hudson Dispatch for the meeting in Elizabeth, NJ and the Staten Island Advance and the New York Times for the meeting in Staten Island, not less than two weeks prior to the scheduled meeting for a period of not less than one week. State and local agencies likely to express an interest in the project shall be contacted in writing directly, including law enforcement, fire prevention, and environmental authorities. The Contracting Officer will solicit interest from appropriate Federal agencies. In addition, all property owners whose properties border a portion of the contract limits shall be contacted in writing directly. A post test blast public information meeting shall be conducted at the above location, if requested by the Contracting Officer.

1.5.2 The contents of the advertisements shall be approved by the Contracting Officer prior to advertisement. Copies of all correspondence publicizing the meetings shall be furnished to the Contracting Officer.

1.5.3 The purpose of the meetings is to disseminate basic project information to interested members of the public, to solicit comments from the public and evaluate proposed blasting methods in light of any valid concerns, and to identify key Contractor and Corps of Engineers representatives who may be contacted for current project information or to report complaints. The Contractor, in conjunction with the Contracting Officer, or his representative, shall prepare an agenda for each meeting to address these purposes. A public question-and-answer period shall be held at the conclusion of the public presentation.

1.5.4 Representatives of the Contracting Officer will participate in each meeting, and will provide reasonable assistance in planning, scheduling, and coordination with the public.

1.5.5 The proceedings of each meeting shall be recorded verbatim by the Contractor, and transcripts thereof shall be provided to the Contracting Officer. The Contracting Officer, or his representative, will review the transcripts, as well as any written comments that may be received, with the Contractor, and may require the Contractor to address specific comments in his Operational Blasting Plan prior to submission.

1.6 Protection for Administration of Drilling and Blasting Complaints

1.6.1 Prior to test blast program and Blasting activities, the following actions with the citizens within the 1,500 ft. radius zone for the blasting area are required:

- a. Newspaper Advertisements-Advertisements in the local newspapers informing the public about the location, date and time of the Public Information Meetings.
- b. Public Information Meetings
- c. Door hangers providing information about the blasting and the request for pre-blast property inspection surveys to the property owners residing

within 1,500 ft from the blast site.

d. Request for pre-blast property surveys by first class mail to all property owners within the 1,500 foot radius of blasting

e. A second request for pre-blast property inspections to property owners by certified letter.

f. Pre-blast property inspections are to be performed for all requests from property owners no matter where they live

1.6.2 During blasting activities, the process for addressing citizens complaints will be as follows:

a. Citizen complaints will be received through the KVK Hotline or the blasting contractor

b. The caller's name, address, phone number, and pertinent information will be recorded in a master complaint log to be maintained by the contractor

c. Blasting Contractor shall schedule and perform an inspection of the complainants property within five calendar days of complaint

d. Contractor shall issue an acknowledgement letter NLT seven days of the inspection date as a follow up to the inspection and update the complainant as to the status of the final determination of the inspection results

e. The contractor shall provide to the complainant a final determination letter; honoring, denying or compromising the claim within 90 days after cessation of all blasting on the contract; but in no case shall the claims remain unresolved for a period exceeding 6 months (180 calendar days)

f. Inspection results, actions taken and all correspondence to the complaints shall be furnished to the Corps.

2. SAFETY.

2.1 Drill Boat or Barge Safety.

2.1.1 All on board magazines shall be permanently secured to the deck as required by the Coast Guard.

2.1.2 No high explosives shall be stored on the boat or barge deck in the open except for the one case that is to be loaded immediately into the bore holes. Any explosives remaining on deck shall be returned to the day magazine prior to the firing of any blast.

2.1.3 The firing line reel or spool shall be mounted on the rig in a manner that it cannot be lost overboard. An approved blasting machine shall be used for detonation regardless of the number of caps used. An electric blasting system shall not be used.

2.1.4 The amount of explosives permitted aboard the drill boat at any one time will be subject to the approval of the Contracting Officer, but in no case shall such amount exceed the amount permitted by appropriate codes and regulations.

2.1.5 The Contractor shall make necessary arrangements to prevent damage to any vessel, moored or underway, building or structure and preserve the crew or occupants thereon from exposure to injury as a result of the Contractor's operations. The Contracting Officer may require additional arrangements.

2.1.6 The Contractor shall have a certified marine survey of all floating plant proposed for underwater blasting work on this contract performed prior to starting any work, and shall provide the results to the Contracting Officer.

2.1.7 Automatic fire extinguishers of an appropriate type shall be installed on air compressors and in all engine compartments aboard vessels (drill boats, barges) where explosives are stored, handled, and used.

2.1.8 Remote fuel shut-offs and fire signaling devices shall be provided aboard the drill boats.

2.2 Lightning: The Contractor shall furnish, maintain, and operate lightning-detection equipment during the entire period of blasting operations and during the periods that explosives are stored at the site. The equipment shall be similar and equal to the Litton TSM/C Thunderstorm Monitor and Lightning Warning Instrument, as manufactured by Litton Industries, Inc., Environmental Systems Division, Camarillo, California. The equipment shall be installed where approved by the Contracting Officer. A lightning detector shall be operated at all times to detect lightning within a 50 mile radius. When the lightning-detection device indicates a blasting hazard potential, the Contractor shall perform the following:

(a) Notify the Coast Guard and the Contracting Officer of the potential hazard.

(b) Clear the buoyed area of all vessels and personnel.

(c) Terminate all loading of holes and return unused explosives to the day storage area.

(d) Monitor the blast area to prevent any boat or vessels from inadvertently entering the blasting area during the lightning hazard

(e) Remove the lightning detector from the drill barge with the last evacuation vessel and continuously monitor the potential hazard until the danger has passed.

(f) After sounding the All Clear Signal, notify the Coast guard and the Contracting Officer, or his representative, that the potential hazard has passed.

(g) Resume operations only after all potential of hazard has passed.

2.3 All other applicable safety requirements shall be implemented in addition to that required above.

2.4 Navigation Control during Drilling, Loading, and Blasting Operations.

2.4.1 The Contractor shall buoy the area with warning signs. The warning signs shall be legible from a distance of 200 feet and shall contain the message "DANGER - EXPLOSIVES IN USE" visible on either side of the sign. The Contractor shall operate two or more patrol boats during blasting operations equipped with a visible yellow flashing light, audible horn, and radio with a

hauler, whose sole function shall be to monitor and maintain security in the blast area. Patrol boats shall be stationed at the drill barge and remain in the blasting area during all blasting operations. Land oriented access control and visual observation locations should be determined and approved by the Contracting Officer. The Contractor shall inspect and insure there is no boat traffic within the buoyed work area prior to the firing of the blasting caps and until such time as the Contractor has sounded the "All Clear Signal". The Contractor shall establish and maintain a warning system as required by the Corps of Engineers Safety Manual. The Contractor shall equip and maintain his floating plant with radio equipment capable of communications with the Coast Guard. The Contractor, after each blast, upon inspecting the area, shall immediately notify the Coast Guard and the Contracting Officer if all clear or misfire is noted.

2.4.2 Coordination with the U.S. Coast Guard. The Contractor shall notify the Coast Guard 24 hours prior to a scheduled shot and 2 hours prior to the actual shot. The channel must be kept open to vessel traffic at all times except as permitted by the Coast Guard and the contracting Officer. Contact should be made with:

Commander (VTS)
Coast Guard Activities New York
212 Coast Guard Drive
Staten Island, New York 10305
Telephone: 718-354-4088

2.5 Contingency Plan in Case of Misfire, Inadvertent Initiator Extraction, or Accidental Loss of Down Lines. All loading of blasting holes shall be done early enough each day to allow time, in case of a misfire, inadvertent initiator extraction, or accidental loss of down lines, to implement a contingency plan for removing or detonating the explosives before dark. The Contractor shall submit a contingency plan to the Coast Guard and Contracting Officer prior to initiation of any blasting and shall notify both parties in the event of a misfire, inadvertent initiator extraction, or accidental loss of down lines. All undetonated explosives due to misfire, inadvertent initiator extraction, or accidental loss of down lines must be detonated. The Contractor shall immediately notify the Coast Guard upon giving the "All Clear Signal" after correcting the misfire, inadvertent initiator extraction, or accidental loss of down lines.

2.6 The Contractor shall notify the public at least 24 hours prior to any scheduled blast, and at least 2 hours prior to an actual blast. As a minimum, the following shall be notified:

Elizabeth Police Department
One Police Plaza
Elizabeth, New Jersey 07002
Tel. (908) 558-2020

Elizabeth Fire Department
316 Irvington Avenue
Elizabeth, New Jersey
Tel. (908) 820-2806

New York City Police Precinct 120
78 Richmond Terrace
St. George, New York 10301
Tel. (718)-676-8500

Explosives Unit, City of New York Fire Department
9 Metrotech Center
Brooklyn, New York 11201
Tel. (718)-999-1519

The Port Authority of New York and New Jersey
NJ Maritime Terminals
Port Newark-Elizabeth P.A. Marine Terminals
260 Kellogg Street
Port Newark, NJ 07114
Tel. (973)-578-2129 (Mr. Ken Spahn, Manager) General Manager

2.7 Bulk Product Specifications.

a. Bulk blasting agents or explosives delivered to the work area shall be weighed by a certified weigh master at the transfer location nearest the work area to determine the actual quantity of explosives delivered each day.

b. Bulk storage tanks or vessels on barges shall be permanently attached to the barge and electrically grounded. A containment dike shall be erected to contain the maximum rated capacity of the storage vessel and all associated pumps and hoses for transfer operations. Pumps, hoses and valves containing bulk product after transfer operations shall be stored in a locked magazine.

c. All access ports, valves, vents and drains shall be secured to prevent vandalism or theft of the explosive product.

A flow metering device capable of measuring the quantity of explosives to within 0.5% of the actual quantity in pounds shall be utilized for all bulk transfer to or from the bulk storage vessel.

d. The delivery system to load holes on each drill frame shall be designed to load each hole to within 0.5% of the design quantity required for each drill hole.

e. Each drill frame shall measure the quantity of explosives loaded in all holes with weigh scales or flow metering devices to within 0.5% of the design quantity for each hole. The total of all loaded holes shall be checked with the total quantity delivered prior to subsequent bulk deliveries. Should the bulk quantity delivered vary from the recorded quantity loaded and detonated, all measuring devices and or meters shall be recalibrated to within the specified accuracy.

f. Each hole loaded with emulsions or slurry shall be initiated with two separate downlines, caps, boosters and starters. At least one booster shall be secured in the hole with a mechanical lock-in system or spider to prevent extraction of the booster or priming charge.

g. As a minimum the top elevation of the emulsion or slurry product shall be measured to check for voids and actual quantity loaded.

h. The blast plan shall include manufacturer's catalog cuts, data sheets and detailed plans and specifications for the bulk storage vessel and transfer system, drill frame delivery system associated loading tubes and reel systems and measuring devices.

i. All loading tubes or hoses shall be equipped to be retracted from the bottom of the hole to the top of the product as the emulsion or slurry is loaded in the hole. The system shall in effect place the product in each hole in a tremie method.

2.8 Surface Blasting. Doby, or Surface Blasting, will not be allowed for the fragmentation of bedrock. Doby blasting is an allowable option for fragmenting boulders or large blast rubble when water depths are at least 30 feet.

3. PREBLAST SURVEY. The Contractor shall provide one man from his organization and his specialist on vibration control to work as a team with a representative of the Contracting Officer in making a pre blast structural survey. A pre blast survey of the interior and exterior of all structures shall be made within a one thousand five hundred (1500) foot radius of any blasting operations. A pre blast survey shall also be performed on any structure outside the 1,500 foot radius when specifically requested by the home owner. Also all the historic structures listed in paragraph 4.3. The Contractor must notify all affected property owners by certified mail with return receipt of the pre blast survey. All structures that may be affected by the blasting, as well as those enumerated in paragraph 4.3, shall be inspected and their condition documented. Any existing outstanding architectural defects such as broken or fallen plaster or broken windows shall be photographically documented by video and with a 35 mm camera with 3:1 zoom capabilities. The Contractor shall provide methodology to be used in conducting the pre blast survey and listing of sensitive structures, determined from the survey to be sensitive, with reasons for these structures being sensitive, within 1500 feet from the blasting areas. Photographs will be taken of all the surveyed structures. The Contractor will determine the elevation of all piers and record with photographs all floating vessels that are in the vicinity and that are vulnerable to wave propagation. The Contractor shall include photographs and video of the historic structures. The Contractor shall certify that the survey was prepared prior to the start of any blasting operations under this contract. A copy of the Pre blast survey shall be submitted for the Contracting Officer's approval in conjunction with the Operational Blasting Plan. In addition the Contractor shall supply four copies of the pre blast survey of historic structures, with original photographs, to Environmental Branch, Planning Division, CENAN-PL-EA for coordination with the New York State Historic Preservation Office and New York City Landmarks Preservation Commission.

4. BLASTING CONTROL.

4.1 General. The blasting program and methods shall be those developed by the test blasting program and procedure to accomplish the excavation shown on

the contract drawings in accordance with the procedures specified herein.

4.2 Blasting. Blasting shall be confined to daylight hours during the period from 2 hours after sunrise to 1 hour before sunset. Blasting is prohibited in acceptance areas **A,B,C,D,E,G,H and I** on **Monday, Tuesday and Wednesday**. Blasting shall not be conducted when temperature inversions or heavy, low-level cloud cover exists. Blasting will be prohibited on Sundays and Federal holidays.

4.3 Vibration Control. Where blasting is necessary, the Contractor shall employ a specialist qualified in vibration control methods capable of analyzing results obtained from seismograph readings. A minimum of 30 days prior to commencement of blasting operations, the Contractor shall provide the Contracting Officer such bona fide of the seismic specialist to include, but not limited to, past experience, training, and education, and have working a knowledge of State and local laws and regulations which pertain to blasting. The acceptability of the specialist is subject to the approval of the Contracting Officer. The Contractor's seismic specialist shall place vibration monitors on all historic structures listed below and shall determine the placement of at least 8 additional vibration monitoring machines per blast zone (minimum 4 per shoreline located adjacent to Blasting Area in each section) with approval of the Contracting Officer and shall be retained for loss control should contract blasting operations result in claims or complaints. The vibration monitoring plan shall identify the type of anchoring devices to be employed at various monitoring sites. Structures that should have monitoring machines include, at least, bulkheads, hazardous materials storage areas and buried utilities. At least one vibration monitoring machine must be placed between the blast and the nearest structure on a natural ground surface. This may require utilizing underwater locations. The other machines must be secured in the ground near identified sensitive structures. Blasting shall be controlled in such a manner that the maximum vibration level at any vessel or structure which is vulnerable to damage should not exceed the peak particle velocity of the appropriate municipality and geographical jurisdictions, or be subject to an unacceptable vibration frequency. A written and a telephone report on vibration intensity shall be submitted within 24 hours when specifically requested by the Contracting Officer or, without request, when such intensity exceeds a peak particle velocity of 2.0 inches per second for any one of the 3 perpendicular planes of motion. Peak Particle Velocity of 2.0 inches per second should not become the basis of design. Refer to table 7.26(e) and chart, both found in NJAC 12:190 for assistance. The Government has provided a list of historic structures to be evaluated by the Contractor. The Contractor will perform a test blast (paragraph 5) which will determine a safe peak particle velocity (PPV) for all structures within the blast area. The contractor shall follow the following vibration limits for the structures listed below:

Historic Structures	PPV<0.5 in/sec
Residential Structures in New York and New Jersey	PPV<1.0 in/sec
Other Structures	PPV<2.0 in/sec

The Contractor shall submit a copy of the record in tabular form for each blast to the Contracting Officer no later than 24 hours after each blast, with a written report on velocity and vibration effects. This should also include location of blast, size, spacing, number, top and bottom elevations

of holes, type of explosives, amount of explosives and stemming per hole and delay, type of delays, sequence and pattern, distance from the blast to the vibration monitoring machine, and any other pertinent information. The following historic structures will be evaluated for sensitivity to vibration and monitored:

New Jersey

Geothals Bridge

Staten Island Railroad Vertical Lift Bridge

Bascule Bridge at the mouth of Elizabeth River

Staten Island

KVK NY Vessels V105, V113, and V119

The following structures are defined as critical structures and will be evaluated for sensitivity to vibration and monitored:

AK-296	Pipeline crossing (Pipeline)
AK-301	Exxon Bayway piers (piers)
AK-303	GATX (pier/dock and building)
AK-304	GATX (pier/dock, pump houses)

4.4 All blasting shall be monitored by the blaster to determine air blast effects using an approved instrument operated by a competent person throughout the project construction and all data furnished to the Contracting Officer. The instrumentation will be located at seismic station locations as determined in paragraph 4.3 and other locations as directed by the Contracting Officer with at least three (3) monitors located in the area closest to the blast site. Airblast equipment shall record waveform data. Recorded airblast data shall be submitted in conjunction with vibration intensity data as specified in paragraph 4.3, within 24 hours of each blast. The maximum allowable airblast shall not exceed 124 decibels.

4.5 If the Government decides to have a supplemental blasting monitoring program under no circumstances will this relieve the Contractor of monitoring and controlling the blasting as specified in this Section or any other requirements.

5. TEST BLAST PROGRAM.

5.1 Purpose. The purpose of the test program is to allow the Contractor to establish safe limits of vibration and airblast overpressure, demonstrate the satisfactory performance of the drill boats and develop an operational blasting plan. The type of explosives and firing systems shall adhere to all applicable codes and regulations including, but not limited to, those cited in paragraph 1.1.

5.2 Test Blast Plan.

5.2.1 The Contractor shall submit fifteen (15) copies of the Test Blast Plan for review. The Contracting Officer shall have 35 days for review after receipt. The Contractor may be required to revise and resubmit the plan.

The Contracting Officer shall have 21 days review of the revised plan. Concurrence with the revised plan will not relieve the Contractor of his responsibility to produce safe and satisfactory results as set forth by these specifications. The test plan shall include as a minimum all pertinent information listed in paragraphs 5.4 and 6.3.

5.2.2 Test blast programs shall be conducted by the Contractor for each area of rock blasting. An optional test blast program for the glacial till shall be planned if determined by the Contracting Officer to be necessary. Each blast program shall involve all drill boats that will be used for any portion of the contract. No drill boat shall be used for the contract that has not participated in a test blast program.

5.2.3 The Contractor shall notify the Contracting Officer sufficiently in advance of each test blast in order for Government representatives to be present during the test blasts. The Contractor shall also invite representatives of the Explosives Unit of the NYFD, 9 Metrotech Center, Brooklyn, NY 11201 (Telephone No. (718) 999-1519) to the test blasts. The test blasts shall begin with a small number of charges and extend upward to the maximum yield to be used. The final test event shall simulate as close as practicable the explosives charge type, size, overlying water depth, charge configuration, charge separation, initiation methods, and emplacement conditions anticipated for the operational blasting program. During each blast the Contractor will analyze the effect of wave propagation on structures, vessels, etc., and take the appropriate actions to prevent damages.

5.3 Post Blast Evaluation.

5.3.1 After each test blast, the Contractor shall examine the structures of the pre blast survey that were inspected and documented, to establish whether damage was caused to the structures. All damage resulting from the test blasting shall be reported in detail to the Contracting Officer, including photographs. The post-blast survey shall include photographs and video of their post-blast conditions. A copy of the Pre blast survey shall be submitted for the Contracting Officer's approval in conjunction with the Operational Blasting Plan. In addition the Contractor shall supply four copies of the pre blast survey of historic structures, with original photographs, to Environmental Branch, Planning Division, CENAN-PL-EA for coordination with the New York State Historic Preservation Office and New York City Landmarks Preservation Commission.

5.3.2 After each test shot the Contractor will excavate the fractured material to evaluate breakage, toe and top of cut. This information will be documented and provided to the Contracting Officer.

5.4 Data Recording and Evaluation. The test blast program shall be conducted and reported in strict accordance with procedures outlined in the sections of these specifications covering vibration control and air blast control. The Contractor shall submit the blasting plans showing the location(s) and extent of the blasted areas. The blasting plans shall include the blasting patterns and the locations of patterns shall be drawn on the maps in scale by providing coordinates of at least four (4) corners of blasted area. Include information as to the number of holes,

bottom and top elevations of holes, coordinates of each hole, amount of explosives and stemming per hole, type of delay in holes, sequence and pattern of delays, maximum peak particle velocity from each instrument, and peak overpressure reading in pounds per square inch and decibels from each air blast sensor. Information provided should also include a written analysis of each blast, including the maximum particle velocity in each plane, associated frequency in each plane and peak true vector sum of particle motion. In addition to the submission of an initial test blast plan, the Contractor is required to submit a documentation of each blast prior to proceeding on to the next blast test. The documentation shall include, but not limited to a written analysis of each blast, all observed test blasting data, examination of structures of the pre blast surveys that were inspected, and information about excavation of fractured materials. Four copies of the record of each blast performed shall be submitted no later than 24 hours after completion of each test blast until the test blast program is completed. It is expected that the initial test blast will be used to develop knowledge of ground conditions, propagation characteristics, etc. At the conclusion of the test blast program, the Contractor shall examine all reports, surveys, test data, and other pertinent information. Conclusions reached shall be the basis for developing a completely engineered procedure for blasting. Five copies of this report shall be provided to the Contracting Officer. In no event shall the operational blasting proceed until the review of the developed procedure for blasting has been completed and the procedures approved.

5.4.1 Upon review of the post evaluation report by the New York and New Jersey State Historic Preservation Offices (SHPO) and the New York City Landmarks Preservation Commission, if additional structures that require monitoring, the Contractor shall perform supplemental monitoring as directed by the Contracting Officer.

6. OPERATIONAL BLASTING PLAN.

6.1 The Contractor shall submit to the Contracting Officer ten (10) copies of the Blasting Plan for review. The Contracting Officer shall have 35 days for review after receipt. The Contractor may be required to revise and resubmit the plan. The Contracting Officer shall have 21 days review of the revised plan. Concurrence with the revised plan will not relieve the Contractor of his responsibility to produce safe and satisfactory results as set forth by these specifications.

6.2 No drilling shall be started before the Contracting Officer reviews and concurs with the blasting plan or any revisions to the plan.

6.2.1 Any changes to the Contractor's blasting or monitoring procedures, equipment, plant, products or personnel must be reflected in a revised Operational Blasting Plan or supplement and must be approved by the Contracting Officer prior to implementation.

6.3 The Blasting Plan shall include as minimum requirements the following:

- (1) Proposed method of transportation, storage, and handling of explosives.
- (2) Plan showing layout of drill hole pattern, timing and sequence.

- anticipated burden dimensions and depth of subdrilling.
- (3) Plan for the fragmentation of large boulders and blast rubble.
 - (4) Type of explosives and method of loading and detonating.
 - (5) Type of blasting machine to be used and when last tested.
 - (6) Specific gravity of explosives and manufacturer's technical literature.
 - (7) Initiation system to be used and explosive loading in pounds of explosive per delay.
 - (8) Indication as to whether decking or boosters will be used and the depths of required stemming.
 - (9) Type and number of drilling rigs, including drill hole diameter, and expected production rates/day.
 - (10) Type of instrumentation to be used, manufacturer, and when last calibrated and certified.
 - (11) Procedure for monitoring the blast operations.
 - (12) List of permits and clearances required, when applied for, and date of approval or anticipated approval.
 - (13) A format for maintaining a record of individual blasts throughout the life of the job designed to record pertinent data before, during, and after the blasting operation. Pertinent information shall include, but not be limited to, number of holes, bottom and top elevations of holes, coordinates of each hole, amount of explosives and stemming per hole, type of delay in holes, and sequence and pattern of delays.
 - (14) Names and qualifications of specialists for vibration control analysis and air blast over- pressure measurements (refer to paragraph 4.3 for exacting requirements).
 - (15) Location plan, manufacturer's literature, and parameters to be used in site selection for seismic instrumentation.
 - (16) Plan showing location of warning signs and signals and the Contractor's land and marine spotters. A 2000 foot safety zone on either side of the blast site shall be free of vessels en route in the Arthur Kull Channel prior to each blast.
 - (17) Name and address of Contractor's representative to which any claims for damage due to blasting should be addressed.
 - (18) The plan, signed off by the Contractor's jobsite authorized representative.
 - (19) The location of monitoring equipment, based on information from the pre blast survey.
 - (20) Contingency Plan for Lightning Hazard
 - (21) Complete Project Team Organization with duties, responsibilities and authorities clearly defined. This organizational outline shall also include a listing of all personnel authorized to sign for, receive and use explosives on this contract.
 - (22) Complete list of floating plant involved in production blasting operations.
 - (23) Provide analysis and control of potential hazard due to possibility of undetonated Pourvex remaining from previous deepening.

6.3.1 The Contractor is advised to evaluate the vibration and air blast factors affecting structures and vessels in the vicinity of the blast area as determined in the pre blast survey. It is recommended that the Contractor use a blast design that produces the maximum amount of relief practicable. The amount of explosives to be used will be determined during the test blast operation to meet all proper safety and environmental requirements. The Contractor is responsible that the fragmentation resulting from the blasting

operation is of suitable size to allow for easy excavation by the Contractor's equipment. The Contractor shall also check water wave propagation to insure that shoreline structures and moored vessels within the blasting area will not be affected during blasting.

6.3.2 The Contractor shall submit the blasting plans showing the location(s) and extent of the blasted areas. The blasting plans shall include the blasting patterns and the locations of patterns shall be drawn on the maps in scale by providing coordinates of at least four (4) corners of blasted areas.

6.4 If drilling and blasting is required outside buoyed areas, the Contractor's plan to maintain minimum navigable depth (**-35 feet MLW**), outside of these buoyed areas must be submitted as part of the Operational Blast Plan. This plan will include areas where the buoy cannot be removed.

7. DRILL LOG AND BLAST REPORT

The Contractor shall prepare and complete drill logs and report for each blast is completed. Information provided on the logs shall include, as a minimum, the items listed in the Drill Log and Blast Report Form in SECTION 00901.

8. MEASUREMENT AND PAYMENT

Measurement and Payment shall be in accordance with the applicable paragraphs in Section 01270: MEASUREMENT AND PAYMENT.

- End of Section -

SECTION 02220

REMOVAL AND DISPOSAL OF WOODEN DIKE AND CONCRETE FOUNDATION

PART 1 GENERAL

1.1 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.

ENGINEERING MANUALS (EM)

EM 385-1-1 (1996) U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 GENERAL REQUIREMENTS

The work includes demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. Rubbish and debris shall be removed from Government property daily, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections. In the interest of conservation, salvage shall be pursued to the maximum extent possible; salvaged items and materials shall be disposed of as specified.

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals not having a "GA" designation are for information only. When used, a designation following the "GA" 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-08 Statements

Work Plan; GA.

The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, including procedures and methods to provide necessary supports, lateral bracing and shoring when required, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence

of operations in accordance with EM 385-1-1.

1.4 PROTECTION

1.4.1 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the cables being demolished and take immediate action to protect all personnel working in and around the demolition site. No area, section, or component of cables, fittings, or other structural element will be allowed to be left on the site without sufficient supervision, or to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

1.4.2 Protection of Structures

The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

1.4.3 Protection of Existing Property

Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing, and supports as required. The Contractor shall ensure that structural elements are not overloaded and shall be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

1.4.4 Environmental Protection

The work shall comply with the requirements of Section 01130 ENVIRONMENT PROTECTION.

1.5 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

1.6 USE OF EXPLOSIVES

Use of explosives to remove the existing structure will not be permitted.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 REMOVAL OF EXISTING STRUCTURES

3.1.1 WOODEN DIKES

There are approximately 1580 linear feet of wooden dike within the dredging limits to be removed. All wood sheathing was approximately 20 feet in height and toed into a silty sand layer. The top of dike was set at elevation +7.0 feet above MLW with construction consisting of a single row of timber piles spaced 10 feet on centers with batter piles on the channel side driven 30 degrees from the vertical at every other pile or at 10 feet on centers. Most of the sheathing except for approximately 50 linear feet has deteriorated. The sheeting and piles shall be either cut at the required depths of 44.5 feet on the bed of the channel and to adjacent depth if on the slope or pulled the entire length. AS built records are available for review.

3.1.2 CONCRETE FOUNDATION OF NAVIGATION BECON #16A

The Contractor shall remove the existing reinforce concrete foundation except for the steel tower and lighting system. The steel tower and lighting system will be removed by the U.S.Coast Guard. Approximate size of the foundation is 8 feet square at top, 10 feet square at bottom, and 4 feet high. The foundation shall be broken into pieces and dispose of at the Artificial Reef Site. In addition to the removal of the concrete foundation the Contractor shall remove and dispose of approximately 310 cubic yards or stone rip rap under neath of the concrete foundation. AS built records are available for review.

3.2 DISPOSITION OF MATERIAL

Title to material and equipment to be demolished, except Government salvage and historical items, is vested in the Contractor upon receipt of notice to proceed. The Government will not be responsible for the condition, loss or damage to such property after notice to proceed.

3.2.1 Salvageable Items and Material

The Contractor shall retain the rights to salvage value of recycled items and material to the maximum extent possible. At the end of the contract, the Contractor shall provide documentation on the disposition of salvaged materials.

3.2.1.1 Material Salvaged for the Contractor

Material salvaged for the Contractor shall be stored as approved by the Contracting Officer and shall be removed from Government property before completion of the contract. Material salvaged for the Contractor shall not be sold on the site.

3.2.1.2 Items Salvaged for the Government

Salvaged items to remain the property of the Government shall be removed in a manner to prevent damage, and packed or crated to protect the items from damage while in storage or during shipment. Items damaged during removal or storage shall be repaired or replaced to match existing items. Containers shall be properly identified as to contents. The following items reserved as property of the Government shall be delivered to the

areas designated: Anchors, chains, firearms, and other articles of value, which are brought to the surface during dredging and demolition operations, shall remain or become the property of the Government and shall be deposited on shore at a convenient location near the site of the work, as directed.

3.3 CLEAN UP

Debris and rubbish shall be removed from basement and similar excavations. Debris shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

3.3 MEASUREMENT AND PAYMENT

Measurement and Payment shall be in accordance with the applicable paragraphs in Section 01270:MEASUREMENT AND PAYMENT.

-- End of Section --

SECTION 02900

DREDGING AND DISPOSAL

1. Mobilization and Demobilization.

1.1 Mobilization shall include all costs for operations accomplished prior to commencement of actual dredging operations, such as transfer of dredges, attendant plant, field offices and facilities, and equipment to the project site, preparation of disposal areas, and other incidental operations in advance of actual dredging work. Demobilization shall include general preparation for transfer of plant to its home base, cleanup of disposal and operations areas, and transfer of plant to its home base. The cost of work other than mobilization and demobilization of the Contractor's dredging plant and equipment shall not be included in this item.

2. Site Conditions.**2.1 Review of Existing Documents**

2.1.1 The Contractor is required to provide mechanical equipment capable of removing material to be dredged at a rate sufficient to complete the work within the specified time period as indicated in SECTION 00800: Special Contract Requirements.

2.1.2 Bidders are invited to examine Corps of Engineers subsurface exploration logs and to decide for themselves the character of the materials. The samples are available for inspection at the New York District, Caven Point Marine Terminal, Jersey City, New Jersey. The Test Dig report for Arthur Kill is available for review at the New York District. For further information bidders should contact the New York District, Engineering Division, Civil Engineering Section, Mr. Ben Baker, at (212) 264-9110/9111.

2.1.3 Bidders are expected to examine the site of the work, including the disposal areas, and decide for themselves the site condition that may affect their operations. See Contract Clause entitled "Site Investigation and Conditions Affecting the Work".

2.2 Existing Conditions**2.2.1 Character of Materials.**

2.2.1.1 Subsurface Explorations including soil borings and rock cores are provided so that potential bidders can determine the area extent and characteristics (including dredgeability) of the soil to be removed. The results are shown on the maps and drawings referred to in Special Contract Requirements SECTION 00800, entitled "Contract Drawings, Maps, and Specifications". Although the results of these investigations are believed to be representative of subsurface conditions at their respective locations and for their respective vertical reaches, local variations in the subsurface materials are to be expected and, if encountered, will not be considered to

constitute "materially different" site conditions within the context of Contract Clause entitled "Different Site Conditions".

2.2.1.2 The materials to be found above the required depth, **43 ft below MLW for the Section A and 42 ft for below MLW for the Section B as shown on the drawings**, include, but are not limited to:

- 1) Dark gray to black, **very soft, organic Silt and Clay**, little to some Sand, frequent shells and shell fragments.
- 2) Red-brown, **dense to very dense Sand and Gravel**, with little to some Silt and Clay, and occasional Cobbles and Boulders.
- 3) Red-brown, soft to **hard Silt and Clay**, with little to some Sand and Gravel, and occasional Cobbles and Boulders.
- 4) **Cobbles and Boulders with a matrix of Sand, Silt and Clay occur** in layers of varying thickness. Cobbles and boulders typically increase with depth and are typically most frequent immediately above the bedrock.
- 5) **Dark gray, gray-green to red-brown, fine to medium grained Sandstone Bedrock.** Sandstones are typically described as hard to very hard with varying degrees of fracturing and weathering. Conventional cores generally indicate the sandstone to be slightly to moderately fractured with rock quality designations (RQD) ranging from poor to good.
- 6) **Red-brown to gray Shale Bedrock.** Shale beds are typically described as soft to very hard depending on the degree of weathering and other factors. Weathering ranges from slightly weathered to decomposed. Conventional cores typically describe the shale as highly fractured and broken with rock quality designations (RQD) ranging from very poor to fair.
- 7) Trash and debris - Trash, debris and other miscellaneous man-made and natural objects should be expected to be encountered during the course of the dredging. This material may be encountered at any location above the required depths indicated on drawings. The objects may include but are not limited to, wood, sheet metals, glass, lumber, plastics, tires, hoses, chains, cables and hawsers.

3. **Dredging Equipment.**

3.1 **Dredges.**

It is anticipated that a variety of dredging equipment will be necessary for the removal of soils and rock within the project area. All material shall be removed with dredging equipment appropriate for the material encountered (i.e. clamshell, closed clamshell "environmental" bucket dredge, dipper, powershovel, etc.). The use of hopper and cutterhead dredges is prohibited.

3.2 **Scow monitoring equipment (ADISS/ADISSPlay).**

The contractor is required, at his/her own expense, to have all scows or other vessels used to transport dredged material to designated placement locations (HARS, artificial reefs, or other locations in the New York Bight

or Lower Bay) equipped with scow monitoring equipment (ADISS/ADISSPlay, from Science Applications International, Inc. (SAIC)). The ADISSPlay software/equipment shall be programmed by SAIC personnel for use aboard any towing, or other, vessels used to transport dredged material. The contractor shall ensure that the ADISS/ADISSPlay equipment is operational at all times dredged material is transported from the dredging site and while returning to the dredging site after ocean placement. Although the Corps Disposal Inspector (CDI) will observe the operation of the ADISS/ADISSPlay equipment, operation and maintenance of the ADISS/ADISSPlay equipment will be the responsibility of the dredging contractor. It is the contractor's responsibility to ensure that the ADISS/ADISSPlay equipment is in continuous, operable condition. Any problems with operation/function of the ADISS/ADISSPlay equipment should be directed to SAIC personnel immediately, at (401) 261-4931, (401) 847-4210, and to the NY District at (212) 264-1853 or x1585.

4. Dredge/Disposal Inspector.

The Contractor at his/her own expense shall have the USACE certified Inspector(s) of Open Water Disposal of Dredged Material oversee the placement activities of all dredged materials at the upland disposal sites, Newark Bay Confined Disposal Facility and the HARS or artificial reef site, or other ocean placement location, if used. The Dredge/Disposal Inspector shall be responsible for ensuring that the requirements contained in the drawings, specifications, the New Jersey DEP Water Quality Certificate/Coastal Zone Determination is met. The Inspector must complete USACE Transportation and Placement Logs for all placement activities performed. Inspectors will be required to be on duty and in the towing vessel wheelhouse, to observe scow monitoring equipment function, watch for endangered species, and perform other inspector duties, from the time the towing vessel departs from the dredging site until the scow has fully docked at the upland disposal unloading facility.

5. General Requirements

5.1 Overdepth and Side Slopes

5.1.1 Allowable Overdepth

To cover inaccuracies of the dredging process, material actually removed from within the specified areas to be dredged, to depths as specified below for allowable overdepth, will be estimated and paid for at the contract price. Allowable overdepth dredging will be permitted to a depth of not more than 1.5 ft for all dredging areas. The required dredging depth as shown on the drawings is 43 ft below MLW for the Section A and 42 ft below MLW for the Section B. An allowable overdepth dredging will be measured and paid for at the applicable contract price in the same manner as specified for the overlying material.

5.1.2 Side Slopes

The side slope dredging requirements as shown on the drawings are as follows:

Non-Rock material: 1V to 3H

Rock material: 1V to 1H

Material actually removed within limits shall provide for final side slopes not flatter than those indicated on the drawings and will be estimated and paid for. The Contractor may dredge material in original position or may dredge below the pay slope plane at the bottom of the slope to allow for sloughing of upslope material capable of falling into the cut. However, material removed below any pay slope plane will not be estimated for payment.

In computing the limiting amount of side slope dredging, the required depth indicated on the drawings, measured vertically, will be used. The quantity of material to be paid for shall not be in excess of that originally lying above this limiting slope. Side slopes are given for payment purposes only and are not necessarily the angle of repose of the soil. Sloughing side slopes shall not be the basis for claims against the Government. End slopes, where indicated on the drawings, shall be treated in the same manner as side slopes.

5.1.3 Excessive Dredging

Material taken from beyond the allowable overdepth or side slope limits may be deducted from the total amount dredged as excessive dredging, or excessive side-slope dredging. Materials dredged from below the depth limit which result in extra costs shall be the responsibility of the Contractor. Nothing here shall be construed to prevent the inclusion in the measurement of material dredged for the removal of shoals performed in accordance with the applicable of the paragraph: FINAL EXAMINATION AND ACCEPTANCE.

5.2 If during the dredging or upon completion of the post-dredging surveys and soundings, materials are found above the required dredging depth of 43 ft below MLW for section A and 42 ft below MLW for section B, these materials shall be removed immediately at the Contractor's expense.

5.3 The maximum allowable depth of non-rock material to remain over the rock prior to blasting shall be 1.0 foot.

5.4 Reprofiling of the channel bottom in any area is prohibited.

5.5 Order and Sequence of Work

5.5.1 The contractor is required to remove the overlying non-rock material unsuitable for placement at the HARS prior to the start of dredging the rock materials in each acceptance area.

5.5.2 Material Types

5.5.2.1 Non-Rock

The Contractor shall commence work with the removal of "Non-Rock Material" in each acceptance area. Removal of Rock is prohibited during the dredging of non-rock material in each acceptance area .

5.5.2.2 Rock

1) After removal of "Non-Rock" is completed for each acceptance area, the Contractor may proceed with the removal of rock with the respective acceptance area. This work may be performed in any order so long as the dredging operations do not interfere with either ship traffic or conflict

with the dredging windows. Rock removal may only be performed in one acceptance area at a time, except as detailed below.

2) When, due to ship traffic, the Contractor is prohibited from working it's current acceptance area, operations may move to acceptance area A, B, C or J until the vessel has passed. After the ship has passed the contractor must make sure that the acceptance area is in compliance with paragraphs 5.5.3.3, 5.5.3.4 or 5.5.3.5 as appropriate and then return to the acceptance area it was working prior to the arrival of the ship. This clause does not supercede 5.5.2 and its sub-paragraphs.

5.5.3 Interference with Navigation

5.5.3.1 The Contractor shall minimize interference with the use of channels and passages. The Contracting Officer will direct the shifting or moving of dredges or the interruption of dredging operations to accommodate the movement of vessels and floating equipment if necessary.

5.5.3.2 Acceptance areas within the existing Federal Channel will remain open to traffic, including during rock removal operations.

5.5.3.3 Acceptance areas C, F, and J shall be maintained at 25ft mlw in areas that are not beneath the dredges or drilling equipment

5.5.3.4 Acceptance areas D, E, G, H and I shall be maintained at 35ft MLW in areas that are not beneath the dredges or drilling equipment. In addition, when ships over 700' loa are entering the channel from the north the entirety of the acceptance areas D and E must be restored to 35ft mlw. If the vessel is proceeding past Howland Hook the entirety of acceptance areas G, H and I must be restored to 35ft MLW. When vessels are departing Howland Hook stern first the entirety of acceptance areas D and E must be restored to 35ft MLW.

5.5.3.5 Between May 16 and September 30 the Contractor shall maintain acceptance area B at 25ft MLW in areas that are not beneath the dredges or drilling equipment. Between 1 October and 15 May acceptance area B shall be maintained at 35ft MLW in areas that are not beneath the dredges or drilling equipment. In addition, when ships over 700' loa are transiting the work area (either from the north or the south) the entirety of the acceptance area B must be restored to 35ft mlw.

5.5.3.6 Vessels over 700ft loa will use the channel only during slack water. If confirmed by the USCG that no ships over 700' loa are scheduled for a particular slack water work may proceed without interruption during the slack water period. The Contractor shall coordinate with the USCG on anticipated ship movements in the project area.

Historic information on vessel traffic is maintained by the USCG Vessel Traffic Service.

5.6 5.6 The Contractor will have a **"NOTICE TO MARINERS"** published by the Coast Guard prior to the initiation of any disposal activities. The Contractor shall also coordinate all dredging and transportation activities with the U.s. Coast Guard Activities New York, Vessel Traffic Service Branch

at 718-354-4191 or facsimile 718-354-4190. Every vessel engaged in the transportation of dredged material shall have its name or number, and owner's name, painted in letters and numbers at least fourteen (14) inches high, on both port and starboard sides of the vessel. These name and numbers shall be kept distinctly legible at all times, and no vessel not so marked, shall be used to transport dredged material, or place dredged material.

Scow Identification and Certification and Backup Scow: All scows that will be used, or may be used, during this dredging project must be identified prior to the first day of dredging. Scows identified for use on the project must be certified to be fully operational, mechanically sound, completely seaworthy, and free of leaks or other defects.

5.7 The Contractor or its authorized dredging or towing contractor must equip each scow, which transports dredged material for placement with an Automated Disposal Surveillance System (ADISS) developed by Science Applications International Corporation (SAIC), which consists of ADISS boxes on scows, and ADISS/ADISSLt units on towing vessels. Before each departure, the USACE certified Inspector must ensure that the ADISS box is in good working order (i.e. ADISSPlay System on towing vessel indicates communication with ADISS System is active) and that the ADISSLt system is functional and ready for potential use as a backup to ADISS/ADISSPlay. Furthermore, the CDI and the Scowman, if used, must jointly continue to monitor the functioning of the ADISS box during each trip. Should the CDI suspect at any time that the ADISS box is not functioning properly (i.e. ADISSPlay System malfunctions), the CDI must immediately contact the COR and the ADISS contractor at 1-800-729-4210. Latitude-longitude coordinates of the scow, displayed by the ADISS systems, should be periodically checked against latitude-longitude coordinates of tugboats, when passing the same, fixed geographic position (i.e. channel marker). The coordinates should be approximately the same. Discrepancies should be noted and investigated through contact with the COR and ADISS coordinator.

5.8 Scows **must** not be transported from the dredging site for offshore placement of dredged material unless the tugs DGPS navigation system, ADISS/ADISSPlay/ADISSLt systems, are all in full working order and provide correct information. However, if SAIC personnel are servicing/repairing the ADISS/ADISSPlay equipment, the ADISSLt equipment may be used, and an affected scow may be transported for ocean placement. ADISSLt must only be used on two consecutive placement trips of a scow. ADISSLt is an emergency backup to the ADISS/ADISSPlay equipment and must not be routinely used.

5.9 Floatable Materials:

All floatable material excavated including but not limited to wood and tires must be disposed at an existing approved upland disposal area. Should the Contractor encounter floatable material, a copy of a letter granting the permission of appropriate authorities to use an existing approved upland area must be submitted to the Contracting Officer and/or his Representative

5.10 All dumping activities shall be recorded as specified below.

Twenty four (24) hours prior to departure of the first project vessel from port for the open water placement of any dredged material, the Contractor shall notify the New York District USACE by telephone. Calls regarding

departures shall be made to the Dredged Material Management Section at (212) 264-1853 or 5622. The Contractor will furnish the Contractor name, project name, inspector name and estimated time of departure.

5.11 The Contracting Officer, or his Representative, reserves the right to have Corps of Engineers and/or the Environmental Protection Agency Inspectors accompany all trips to the placement site to certify compliance with the above

5.12 The Contractor, or his authorized Representative, shall give notice of sailing by telephone, or via direct radio transmission between the Contractor's tug and the US Coast Guard 2 hours prior to departure of a vessel from port. Telephone calls should be made to the US Coast Guard at (718) 354-4088.

5.13 Corps Disposal Inspector (CDI):

The Contractor must hire USACE, NY District, certified Inspectors of Open Water Disposal of Dredged Material, known as Corps Disposal Inspectors (CDIs). CDIs will observe loaded scows at the dredging site, monitor transport of dredged material, and monitor placement activities at the upland site(s), Newark Bay Confined Disposal Facility(CDF) and HARS, artificial reefs, or other ocean placement location. CDIs will be responsible for ensuring that the requirements contained in these specifications, and any other guidance and requirements provided to the contractor related to dredged material placement, are met. CDIs will help ensure that placement guidelines, particularly as presented during the pre-construction meeting, and described below, are being followed. CDIs must be awake and on duty from the time the scow is towed from the dredging site until the scow doors are closed and all reporting requirements associated with each trip have been completed. CDIs must complete the checklists during each placement trip.

a. A list of CDIs can be obtained from the USACE Ocean Placement Manager, Dr. Stephen Knowles, at (212) 264-1853. Fourteen (14) days prior to departure of the first project vessel from port for open water placement of any dredged material, the Contractor must submit a letter to the New York District with the names and certification information of all CDIs who will be working on the project. The Contractor must furnish CDI names, companies CDIs are affiliated with if not independent CDIs, and the expected duration of employment of CDIs who will begin service at the start of the project. CDIs who will be on duty at the beginning of the dredging project must be present at the pre-construction meeting to review placement guidelines and requirements associated with this project. Any CDIs who begin duty after the first day of dredging must meet with NY District personnel to review placement guidelines and requirements associated with this project prior to working as a CDI on the project. Notice of replacement CDIs must be submitted to NY District at least two weeks prior to beginning work, unless illness of a CDI or other unforeseen event prevents such notification. The Contractor must furnish CDI names, companies CDIs are affiliated with if not independent CDIs, and the expected duration of employment of replacement CDIs who will work on the project.

b. CDIs are not allowed to be on duty for more than twelve (12) hours per day. CDIs must be provided a minimum of eight (8) hours of continuous off-duty time each day to allow appropriate rest to ensure safety and

competence. CDIs must be provided with a designated bunk space or other suitable sleeping location while working aboard a towing vessel and a suitable location for completing paperwork associated with CDI duties. The contractor is not permitted to direct the CDI in completion of CDI duties/requirements unless specifically requested by NY District. Although CDIs are financially employed by the Contractor, either directly or through sub-contracting, CDI duties and requirements are established by NY District. NY District will be responsible for determining whether CDIs are satisfactorily performing their duties and requirements.

c. The following items, provisions, accommodations, and supplies must be provided for the use of each CDI working on the dredging contract:

-legible copy of the permit or contract specifications, as related to scow loading, transport, and dredged material placement;

-A legible copy of the Placement Guidelines and placement grid map received at the pre-construction meeting, or any additional instructions or guidelines as related to scow loading, transport, and dredged material placement;

-an 8" - 12" wide protractor with degrees printed or embossed on the curved surface;

-dividers for scaling distances off of maps and charts;

-scow loading tables for each scow used to transport dredged material;

-a fully operational, handheld laser range finder with a range of at least 1000 feet, and manufactured no earlier than 1998, must be available for use by the CDI at any time. Spare batteries for the laser range finder must be available at all times;

-access to the towing vessel DGPS, fathometer, and radar;

-fully operable personal cellphones in possession of each CDI at all times with active phone numbers unique to each phone available for placing and receiving calls at all times. Cell phone numbers must be provided to NY District at the pre-construction meeting;

-suitable location for completing paperwork associated with CDI duties;

-a fully operational fax machine must be onboard the towing vessel for use by the CDI within 2 hours of each placement event, or available for use by the CDI at the dredging site within 4 hours of each placement event;

--Any discrepancies or other concerns noted by the CDI regarding placement activities shall be reported immediately, via cellular phone from the tug, to the KVK Project Office at (201) 433-9232 or 9228 and USACE HARS Manger at (212) 264-1853 or x5620.

Additional items related to the duties of the CDI may be required at any time during the period of the dredging contract;

5.14 CDIs shall submit a report of all placement activities authorized by this contract for each scow of dredged material within 6 hours of the time of placement at the HARS, reef, or other open-water placement location. CDIs must complete a USACE Transportation and Placement Log form (TPLF) electronically, using the ADISSPlay or ADISSLt system, or manually if necessary. Logs should be faxed to (212) 264-4260, or hand delivered to room 1937 of 26 Federal Plaza within 6 hours of each placement event. Any discrepancies or other concerns noted by the CDI regarding placement activities shall be reported immediately (via cellular phone from the tug, or within one-half hour of return to the dredge site or port) to the USACE HARS Manger at (212) 264-1853 or x5620, to the USACE Construction Division POC, and a dredging contractor POC not onboard the towing vessel. CDIs may communicate with towing vessel captains to help ensure correct placement of dredged materials. However, CDIs are not authorized to operate towing vessel equipment, and in particular, remotely operated scow control equipment. CDIs are required to use hand-held laser range finders (required to be aboard all towing vessels used for dredged material placement) to determine the tow lengths used at the time of dredged material placement. CDIs are required to communicate with the towing vessel crew to obtain information necessary to document the position of the scow at the time placement occurs. In the event of ADISS/ADISSPlay/ADISSLt malfunction, the CDI must complete a map of the placement area showing the position of the scow at the time scow doors were first opened, including the distance from the towing vessel to the scow (as determined using the hand-held laser range finder), the towing vessel DGPS position at the time of initial scow door opening, the vessel direction of travel, and the bearing to the scow from the towing vessel. Manually prepared maps, if necessary, associated with an ocean placement trip, should also be faxed to NY District with the TPLF and other required documents. If TPLFs (electronically or manually produced) and any other required placement documents are not received within 6 hours of each placement event, scows may be directed to standby at the dredging site until all items have been received at NY District.

5.15 Specific Placement Grid Details And Additional Placement Guidelines

More detailed placement guidelines and specific placement grid information will be provided prior to commencement of dredging, particularly at a pre-construction meeting of the dredging contractor and Corps. Additional placement guidelines and modifications may be provided to the dredging contractor at any time during the dredging contract.

6. Dredging and Disposal of "Non-rock materials" unsuitable for placement at the HARS

6.1 The "non-rock" dredged material is composed of the material identified in para. 2.2.1.2 item numbers 1 through 5 that are deposited within the dredging limits as shown on the contract drawings is considered unsuitable for placement at the HARS.

All non-Rock dredged material capable of being removed using an "environmental" bucket shall be removed with an "environmental" bucket. If after the Contractor has used the "environmental" bucket and has not achieved 43 ft (42ft in section B) below MLW, the Contractor shall use a conventional

bucket to remove the non-rock material to 43 ft (42ft in section B) below MLW.

These dredged materials shall be disposed of at the disposal site designated by the Government. The Contractor Quality Control (CQC) personnel, the Contracting Officer Representatives, and USACE certified Dredge/Disposal Inspector shall jointly determine the character of materials to be disposed of at the non-ocean placement site or designated upland disposal sites.

6.2 Disposal Facilities

The Government has identified the following sites for the processing and disposal of non-rock dredged material. The Contractor shall coordinate with the operator of the disposal facility to ensure that the necessary facility requirements are included in the Contractor's bid price. The Contractor shall submit a schedule and the anticipated quantity to be placed at the disposal sites within 3 calendar days from the date the contractor is notified as the apparent low bidder.

1) The following site shall be the only government identified non-ocean placement site used for item number 0001AC and 0001AG in the price schedule.

Disposal Site: Bayonne Landfill Remediation Site
Operator: Cherokee/OENJ
Location: 61 North Hook Road, Bayonne, NJ 07002
Point of contact: Mr. Irving Cohen, President
Phone Number: 212 904-0705
Location of Unloading Facility: Northeast corner of the property

2) The following site shall be the only non-ocean placement site used for number 0001AJ.

Disposal Site: Newark Bay Confined Disposal Facility (NBCDF)
Operator: Port Authority of New York and New Jersey
Location: Newark Bay
Point of contact: James Iacone
Phone Number: 212 435-4267
Location of Unloading Facility: Disposal will take place above the NBCDF

The Contractor will be required to pay a management fee of \$29.00 per cubic yard disposed of at the NBCDF. A management fee will be derived from volume calculation taken from a before-dredge and after-dredge bathymetric survey of the contract limit area as designated in the contract drawings and specifications based upon in-situ non-HARS sediment at the origin dredging site. The after-dredge survey will be performed for an area after the material for NBCDF disposal has been removed and before underlying material for HARS remediation or reef construction is removed. All other payment to the Port Authority of New & New Jersey shall be in accordance with the requirements specified in the NBCDF Final Operation and Management Plan.

6.3 Any non-rock material capable of being removed using an "environmental" bucket shall be removed with an "environmental" bucket to refusal. The defining characteristics of environmental bucket are as follows:

a. The bucket shall be provided with welded steel covers and rubber seals

specifically designed and installed by the bucket manufacturer to minimize leakage from the closed bucket.

b. The closed bucket shall be equipped with vertical side plates, with rubber seals, which overlap or some method to reduce sediment loss at closure and shall act as an enclosure to eliminate redeposit of soil from the bucket.

c. The bucket shall be equipped with a switch, with signal light in the control station, to verify bucket closure and seal.

d. The bucket will be designed to produce a flat cut and to minimize resuspension during closing and lifting.

A shop drawing of the contractor's bucket shall be provided to the Contracting Officer for approval prior to the commencement of dredging.

6.4 No dredging operations shall be done unless the Dredge/Disposal Inspector, approved by the Contracting Officer, is present. The Inspector shall visually inspect the dredged material and take photographs or videos to document the conditions of the dredged material.

6.5 For the purpose of progress payment, the Contractor shall perform bathymetric surveys immediately following removal of debris and prior to removing any non-rock material destined for the upland disposal site to determine the contract dredged volume of non-rock materials disposal at the upland disposal facility. The contract volume is derived from volume calculations taken from a pre- and post-dredge bathymetric surveys based upon in-situ non-rock sediment at the origin of dredge site. Refer to Section 00800, Quantity Surveys.

6.6 When working in non-rock dredged material, the Contractor shall employ the following best management practices:

- 1) No barge overflow shall be permitted during the dredging and transport of any contaminated dredged material.
- 2) Dredging of non-rock materials shall be accomplished using a closed "environmental" bucket. Dredging of consolidated "new work" material is not subject this equipment restriction, but shall be accomplished using best management techniques to minimize the suspension of sediment.
- 3) Dredged material shall be placed deliberately in the barge in order to prevent spillage of material overboard.
- 4) The dredge shall be operated so as to maximize the bite of the environmental bucket. This will reduce the amount of free water in the dredged material and the number of the bites required for completing the job.
- 5) To minimize the loss of material during the excavation the environmental bucket lift speed shall not exceed 2 feet per second.
- 6) All barges or scows used to transport sediment shall be of solid hull construction or be sealed with concrete, except for material permitted for subaqueous disposal.

7) Should decanting of water from barges be required before disposal, PANYNJ will make berthing area(s) available for dewatering purpose (Section 00902). The Contractor may use the berthing area located in the Arthur Kill Channel designated by the Contracting Officer for this project unless otherwise directed by the Contracting Officer. (the Cory property at the Morses Creek bulkhead, The Cory Warehouse pier, south of the Goethals Bridge, is the dewatering site the NYNJPA is providing, A 400 foot berth located on the south side of the peninsula south of the Goethals Bridge in New Jersey is available for mooring a dewatering scow; preliminary indications are that there is about 16-18 feet of water at this location) designated by the Contracting Officer for this project unless otherwise directed by the Contracting Officer. All operation and management rules shall be in accordance with the requirements specified in the State of New Jersey Water Quality Certificate (WQC)/Federal Consistency and NY WQC.

6.7 The Contractor shall submit a schedule for disposal of non-rock dredged material to the disposal facility and Point of Contact to the Contracting Officer's Representative at least 30 calendar days prior to the commencement of the dredging of said material. The schedule shall indicate the anticipated flow of material.

6.8 The towing vessel captain is responsible to ensure, prior to the departure of the towing vessel from the dredge site, that the forecasted weather and sea conditions at the expected time of arrival at the disposal facility will allow for safe conditions. If upon arrival at the disposal site facility, prevailing conditions are such that deviation from the operating procedures of the disposal facility is necessary to ensure the safety of the operation, the responsibility for the determination of a minimum safe speed for the towing vessel, and a minimum safe distance will rest solely with the captain of the towing vessel.

6.9 The Contractor shall be responsible for the transport of dredged material and the tie-down of the scow to the designated location identified by the disposal operator. The Contractor is required to take all necessary precautions for the safety of, and to provide necessary protection to prevent damage, injury or loss to any person or property, including but not limited to: a) All employees of the Contractor, public, and other persons and entities who may be affected by thereby; b) the physical structure(s) in surrounding the navigation channel; and c) other property at the upland disposal facility, including piers, docks, berths, vessels, markers, lights, buoys, and other structures.

6.10 **Dredging of Hard Material**

Excavation of hard material (material that cannot be dredged by the environmental bucket) shall be performed by mechanical dredging only. Hydraulic dredging will not be permitted. Hard material shall be placed in scows and transported to the upland disposal site or disposal facility designated by the Government.

6.11 The dredging and placement logs for dredged material unsuitable for placement at the HARS placement shall be completed and attached to the Contractor's daily CQC report and submitted on a daily basis.

6.12 The USACE certified dredge inspector shall verify acceptance of the dredge material unsuitable for the placement at the HARS from the upland facility at the time of arrival.

7. PLACEMENT OF DREDGED MATERIAL AT OPEN-WATER PLACEMENT SITES

Dredged Material Placement Protocol for the HARS. For CLIN 0001AK and IF CLIN 0003 is exercised the following requirement are applicable. All non-rock dredged material overlying the red-brown silt and clay that is capable of being dredged with an "Environmental" Bucket shall be removed under CLIN 0001AC

All of the provisions, guidelines, requirements, and instructions (PGRIs) in this section of the contract specification must be completed/complied with before any dredged material may be placed at a designated ocean placement site. Many of the PGRIs must be completed/complied with prior to the start of dredging. Any misplaced dredged material deemed to constitute a potential hazard to navigation by the Corps will be the sole liability of the dredging contractor to remove, as directed by the Corps. This would include, for example, placement of dredged material in a navigation channel that results in a mound or causes an area of shallower water within the channel; or any dredged material placed above a permitted depth associated with an artificial reef. The dredging contractor will assume all expenses and liabilities associated with creating mounds of dredged material above a permitted depth at an artificial reef site and expenses and liabilities associated with bringing such mounds below permitted depths.

7.1 Personnel Notification: This section of the contract specification must be provided to all contractor personnel working on any aspect of open-water placement of dredged material associated with this project, including personnel loading scows at the dredging site, personnel working on scows at the dredge site, personnel onboard towing vessels at the dredging site or while towing scows, including USACE NY District certified Inspectors of Open Water Disposal of Dredged Material (Corps Disposal Inspectors (CDIs)), and personnel aboard scows being towed. All personnel associated with loading of scows, transportation of dredged material, and placement of dredged material must be familiar with the guidelines and requirements contained in this portion of the contract specifications. Prior to the start of dredging, the contractor must submit a letter to the NY District listing the name, position title, and job description of each person who will be working on the towing vessels used to transport dredged material, each person who will be loading the scows with dredged material at the dredging site, and anyone else involved with scows at the dredge site or while being towed to the designated placement location. This letter must include verification that each person has been provided a copy of this portion of the contract specification, has read this portion of the contract specification, and understands the requirements described in this contract specification as related to their job duties. Additional guidelines and directives may be provided at any time during the duration of the dredging project and will become part of the contract specifications.

7.2 Ocean Placement Locations:for HARS and ROCK

For CLIN 0001AK and if CLIN 003 exercised the Government has identified the

Historic Area Remediation Site (HARS) for placement of dredged material, approved for ocean disposal, removed under this contract. However, barges that contain less than 25% non-rock material (i.e., vessels which contain 75% or more rock material) should not be transported to the HARS. (Non-rock material is defined as material that is less than 2.5 inches in diameter.)

7.2.1 HARS

The Contractor shall perform dredged material placement at specific locations within the HARS, defined by the following perimeter coordinates:

Point	LatitudeDMS	LongitudeDMS	LatitudeDDM	LongitudeDDM
B	40° 25' 23" N	73° 53' 34" W	40° 25.38' N	73° 53.57' W
D	40° 25' 22" N	73° 52' 08" W	40° 25.37' N	73° 52.13' W
F	40° 23' 13" N	73° 52' 09" W	40° 23.22' N	73° 52.15' W
G	40° 23' 13" N	73° 51' 28" W	40° 23.22' N	73° 51.47' W
H	40° 22' 41" N	73° 51' 28" W	40° 22.68' N	73° 51.47' W
I	40° 22' 41" N	73° 50' 43" W	40° 22.68' N	73° 50.72' W
L	40° 25' 22" N	73° 50' 44" W	40° 25.37' N	73° 50.73' W
N	40° 25' 22" N	73° 49' 19" W	40° 25.37' N	73° 49.32' W
O	40° 21' 35" N	73° 49' 19" W	40° 21.58' N	73° 49.32' W
Q	40° 21' 36" N	73° 52' 08" W	40° 21.60' N	73° 52.13' W
T	40° 22' 08" N	73° 52' 08" W	40° 22.13' N	73° 52.13' W
U	40° 22' 08" N	73° 53' 34" W	40° 22.13' N	73° 53.57' W

DMS = Degrees, Minutes, Seconds

DDM = Degrees, Decimal Minutes

7.2.2 The Contractor will also use exact placement criteria set by the New York District Corps of Engineers. All placement of dredged material within the HARS will occur in strict accordance with the guidelines and locations attached to these specifications, and any future updates when provided by USACE, particularly at the pre-construction meeting.

7.2.3 All non-rock material approved for ocean disposal, excluding floating debris and trash, shall be transported to the HARS, unless otherwise directed.

7.2.4 Rock

The Government has identified the **Shark River reef** for placement of dredged rock (i.e., vessels that contain 75% or more rock material) that is approved for ocean disposal. (see map in section 00902)

The rock material to be dredged, exclusive of all floatable material, will be disposed of at the Shark River Reef Site in New Jersey State. The artificial reef site is located approximately from Manasquan Inlet 100 degrees - 15.6 nautical miles and from Shark River Inlet 119 degrees - 14.8 nautical miles.

Boundaries of the site are as follows:

LATITUDE	LONGITUDE
NE Corner 40 7' 21"	73 41' 45"
NW Corner 40 7' 21"	73 41' 03"
SE Corner 40 6' 12"	73 41' 03"
SW Corner 40 6' 12"	73 41' 45"

Note: The coordinates of the exact location of the grid used for placement of dredged material at the HARS will be provided during the pre-construction meeting and may be changed at any time during the dredging project.

7.3 General Requirements: ALL PLACEMENT ACTIVITIES MUST BE RECORDED, AND REQUIREMENTS ADHERED TO, AS SPECIFIED BELOW.

- a. Twenty four (24) hours prior to departure of the first project vessel from port for the open water placement of any dredged material, the Contractor must notify the New York District USACE by telephone. Calls regarding departures must be made to the Dredged Material Management Section at (212) 264-1853 or 5620. The Contractor must furnish the Contractor name, project name, inspector name and estimated time of departure.
- b. The Contracting Officer, or his Representative, reserves the right to have Corps of Engineers and/or Environmental Protection Agency employees and other invited representatives accompany all trips to the placement site to certify compliance with any contract specifications or environmental regulations.
- c. The Contracting Officer, or his authorized Representative, must give notice of sailing by telephone, or via direct radio transmission between the Contractor's tug and the US Coast Guard two hours prior to departure of a vessel from port. Telephone calls must be made to (718) 354-4088.
- d. CDIs must submit reports of all placement activities authorized by this contract on the basis of one report for each scow of dredged material within 6 hours after each placement event. Reports must be printed from the ADISSPlay system aboard the towing vessel and must be transmitted via a cell phone link with the ADISSPlay system, and faxed to NY District at (212) 264-4260. If the electronic form can not be printed, a hand written form must be completed and submitted. Individual trip reports must utilize the USACE Transportation and Placement Log Form (TPLF), which must be fully completed electronically on board the towing vessel, or manually if equipment failure prevents electronic completion. Any discrepancies or other concerns noted by the inspector regarding placement activities must be reported immediately, via cellular phone from the tug, to the USACE Ocean Placement Manager at (212) 264-1853 or (212) 264-5620, the towing vessel captain, the dredging contractor POC not onboard the towing vessel, and the Contracting Officer and/or his Representative. These personnel are termed the "Notification List". Telephone numbers of personnel on the Notification List must be supplied to all CDIs working on the dredging project. Reports of discrepancies must also be faxed by the CDI as soon as possible to (212) 264-4260 and (NY District contract manager). In addition to the TPLF, a checklist must be completed for each ocean placement trip. Any items receiving a "NO" answer are considered discrepancies and must be reported immediately to the Notification List. Discrepancies that must be noted by the CDI on the TPL form and checklist and must be reported immediately to the Notification List include, but are not limited to, the following items

-A scow has a mechanical problem, a leak, or visible damage that may cause leaking.

- A scow contains more than the maximum volume allowed for placement during a single trip.
- A scow has a noticeable list
- A trail of leaking dredged material is visible behind the scow
- A scow monitoring system (ADISS, ADISSPlay, and ADISSLt) is not functioning properly
- Fathometer, radar, vessel DGPS, and any other equipment/information necessary to conduct CDI duties are not present or are not fully functional.
- Scow draft pressure varies more than 20 points, or 1.5 feet of draft, from the value at the dredge site.
- A gradual increase or decrease in scow draft pressure values, exceeding 12 points (or actual scow draft of more than 1 foot) is observed.
- Any water depths observed anywhere within an artificial reef boundary within 15 feet of the permitted water depth at the reef, or within 15 feet of a depth specified by NY District.
- Placement occurred in the incorrect grid cell
- Any placement outside of the designated placement grid, including locations within the HARS, the HARS Buffer Zone, shipwreck Buffer Zones, the HARS No-Discharge Zone, and all areas outside of the HARS.

CDIs should check each item as appropriate, at the dredging site, while underway to the placement location, during placement, and following placement. Copies of the checklist must be completed by CDIs during each placement trip, signed and dated by the CDI, and submitted to the NY District on a weekly basis. Any discrepancies must be recorded on the TPLF or a separate report. Separate reports must include the name of the CDI, the date and time of the incident, and a detailed description of any discrepancy. These supplemental reports must be submitted at the same time TPLFs are submitted.

e. Contractor must receive grid coordinates for the placement location at the HARS before dredging starts; usually at the pre-construction meeting. Individual grid cells may be as small as 100 feet wide and 200 feet long. Placement must be made while towing scows in the direction of the longest grid cell dimension, unless otherwise directed by the NY District. All placement events must be recorded and signed by the master of the tow. Copies must be submitted to the U.S. Coast Guard no later than the fourth day after each week of activity. The Coast Guard address is:

Captain of the Port of New York
212 Coast Guard Drive
Staten Island, New York 10305

f. f. Every vessel engaged in the transportation of dredged material must have its name or number, and owner's name, painted in letters and numbers at least fourteen (14) inches high, on both port and starboard sides of the vessel. These names and numbers must be kept distinctly legible at all times, and vessels not so marked, cannot be used to transport or dump dredged material

**7.4 Placement of Dredged Material Suitable for Ocean Disposal,
General:**

a. A National Marine Fisheries Services-approved Observer, at the Contractor's expense, must be aboard the tug transporting a loaded scow to the ocean placement sites. The observer will have the responsibility for determining the presence of endangered species (sea turtles and whales) during transit to, and upon arrival at the location for all placement activities. Upon arrival at the placement site, placement of dredged material may occur only if no specimens of endangered species are observed to be present within a 0.25 nautical mile of the placement site. If endangered species are observed to be present within 0.25 nautical mile of the designated placement location, then the placement of dredged material must not occur. Placement of the dredged material may occur only when the observed animals have moved outside the 0.25 nautical mile zone around the designated placement location, or have completely departed the site. In all such cases where whales or sea turtles have been encountered, the observer must submit a written report incorporating the following information: animal type (Whale or sea turtle); the specific species (if known); the date, time and location of the sighting (latitude, longitude); approximate distance away from the vessel and scow/barge; number of individuals observed; behavior (feeding, nursing, migrating, etc.,). If a CDI is to be used for this function, he/she should possess or acquire, prior to the initiation of the project, valid certification from the National Marine Fisheries Service or other accredited agency of training on techniques for identifying species, and preparing applicable reports for instances where endangered species are encountered. Twenty-one (21) days prior to departure of the first project vessel from port for open water placement of any dredged material, the Contractor must submit a letter to the New York District with the names and certification information of all NMFS Observers who will be working on the project. The Contractor must furnish Observer names, companies Observers are affiliated with if not independent Observers, and the expected duration of employment of Observers who will begin service at the start of the project. CDIs who are also NMFS Observers may fulfill the duties of both positions.

b. The towing vessel captain and the CDI must jointly determine and agree, prior to the departure of the towing vessel from the dredging site, that the forecasted weather and sea conditions at the expected time of placement of dredged material within the HARS will allow the full release of the material from the scow at the designated location. If weather/sea conditions will not permit placement of dredged material at the designated grid cell, the scow must not be towed from the dredging site until conditions improve and allow safe and accurate dredged material placement. The distance from the dredging site to the placement location at the HARS site may require careful monitoring of marine conditions and forecasts. If upon arrival at the placement site, prevailing conditions are such that deviation from the placement parameters is necessary to ensure the safety of the operation, the

responsibility for the determination of a minimum safe speed for the scow, and a minimum towing distance to ensure the safety of the operation, will rest solely with the captain of the towing vessel. In any case where such deviation occurs, the CDI must note the alteration and reason for the deviation upon the TPLF. Additional guidelines to be followed during the placement of any dredged material within the artificial reef site are as follows:

c. The distance between the towing vessel and the placement scow when placing the dredged material must be noted by the CDIs on the TPL form used to document each trip. A hand-held laser range finder, manufactured no earlier than 1998 and rated to measure accurate distance to at least 1000 yards, must be aboard each towing vessel for use in determining the distance between the towing vessel and placement scow.

d. DGPS navigation and fathometer equipment must be present and fully operational on board the towing vessel and must be calibrated periodically in accordance with the manufacturer's guidelines. The instrumentation must also conform to current industry standards. Re-calibration of the instrumentation will be required in instances where major modifications to the towing vessel have been made. Specific documentation certifying the accuracy of instruments may be requested by the USACE. Fixed aids to navigation, with known latitude-longitude coordinates, should be used periodically to double-check the accuracy of navigation equipment. Likewise, locations with a known depth and stable bottom should be used to periodically double-check accuracy of fathometers.

e. The Contractor or its authorized dredging or towing contractor must equip each scow, which transports dredged material for placement with an Automated Disposal Surveillance System (ADISS) developed by Science Applications International Corporation (SAIC), which consists of ADISS boxes on scows, and ADISS/ADISSLt units on towing vessels. Before each departure, the USACE certified Inspector must ensure that the ADISS box is in good working order (i.e. ADISSPlay System on towing vessel indicates communication with ADISS System is active) and that the ADISSLt system is functional and ready for potential use as a backup to ADISS/ADISSPlay. Furthermore, the CDI and the Scowman, if used, must jointly continue to monitor the functioning of the ADISS box during each trip. Should the CDI suspect at any time that the ADISS box is not functioning properly (i.e. ADISSPlay System malfunctions), the CDI must immediately contact the USACE Ocean Placement Manager at (212) 264-1853 or (212) 264-5620 and the ADISS contractor at 1-800-729-4210. Latitude-longitude coordinates of the scow, displayed by the ADISS systems, should be periodically checked against latitude-longitude coordinates of tugboats, when passing the same, fixed geographic position (i.e. channel marker). The coordinates should be approximately the same. Discrepancies should be noted and investigated through contact with the Corps Ocean Placement Manager and ADISS coordinator.

f. Scows may not be transported from the dredging site for offshore placement of dredged material unless the tugs DGPS navigation system, ADISS/ADISSPlay/ADISSLt systems, tug fathometer, hand-held laser rangefinder, scow radio-control system (if used), and backup radio on scow (if scowman is used) are all in full working order and provide correct information. However, if SAIC personnel are servicing/repairing the ADISS/ADISSPlay

equipment, the ADISSLt equipment may be used, and an affected scow may be transported for ocean placement. ADISSLt must only be used on two consecutive placement trips of a scow. ADISSLt is an emergency backup to the ADISS/ADISSPlay equipment and must not be routinely used.

7.5 Protocol for Placement of Dredged Material at Open Water Sites:

To help ensure proper placement of dredged material at the Historic Area Remediation Site (HARS), the following placement protocol must be followed:

- a. Prior to leaving the dredging site, scows must be inspected to ensure correct operation of mechanical features. Scows must also be inspected for the presence of any conditions that may cause navigation problems. The scow radio-control system (if used on the project) and the ADISS/ADISSPlay and ADISSLt systems must be inspected for correct operation. A hand-held laser range finder, with a range of at least 1000 feet, manufactured no earlier than 1998, must be carried aboard each towing vessel. Hand-held laser range finders must be tested prior to departure from the dredge site. If any problems with the scow, radio-control system, ADISS/ADISSPlay/ADISSLt systems, or range finder are encountered, corrections must be made before offshore transport of the scow may proceed, except when SAIC personnel are onboard or attempting to fix an ADISS/ADISSPlay problem, in which case placement would proceed using the ADISSLt equipment. However, ADISSLt must not be used on more than two consecutive placement trips.
- b. Scows must be inspected for the presence of any conditions that may cause potential leakage. Prior to loading an empty scow at the dredging site, the empty scow must be inspected for presence of large dents or visible holes. Any visible holes must be repaired prior to placing any dredged material in the scow. Dents must be closely examined to ensure that a hole is not present, or that the hull strength is not compromised. The juncture of the two split hulls, when the scow is closed, must form a straight line and the rubber gasket must form a tight seal. Damage to the rubber seal or juncture must be repaired prior to loading the scow. Scow draft/pressure values at the dredging site at the time the scow is towed away for open-water placement must be recorded on the TPL form by the CDI. Scow draft/pressure values must also be recorded 30 minutes after departing the dredge site. Scow draft/pressure values at the designated placement location, just prior to scow door opening, must also be recorded on the TPL form by the CDI.
- c. Scows must be observed for potential leaking of dredged material, as indicated by visible turbidity plumes (muddier water) behind the scow, or significant change in the scow draft pressure value (± 20 points of the value displayed on the ADISSPlay system when leaving the dredging site when the starting value is = 100). For example, if the scow pressure when departing the dredging site is 100, then any value above 120, or below 80, observed while underway to the placement location or anytime prior to opening the scow at the designated placement location, must be reported immediately to the Notification List. If the starting pressure is less than 100, then any change greater than 20% of the starting value must be reported immediately to the Notification List. For example, if the starting scow draft pressure value is 80, any value above 96, or below 64, must be reported immediately. If the ADISSPlay system displays actual scow draft during transport, changes in draft ± 1.5 feet of the draft recorded when departing the dredging site must be reported to the Notification List immediately. The scow draft

pressure values, or actual draft values displayed by the ADISSPlay system, must be recorded on the TPLF for every trip, regardless of the values or variability. Scows exhibiting draft changes significant enough to require immediate notification may be leaking. A gradual increase or decrease in scow draft of more than one foot (~12 pressure value points) may indicate leakage, and must be noted on the TPLF, and also must be reported to the Notification List immediately. If the scow has not reached the Verazanno Narrows bridge, the scow must be towed back to the dredging site to determine the cause of the change in draft. If the scow is seaward of the Verazanno Narrows bridge, the scow may be transported to the designated placement location. In this case, the scow draft should continue to be highly scrutinized for the possible need for emergency procedures. If a situation arises that requires emergency dumping of dredged material, all reasonable efforts to dump outside of navigation channels must be made. Steady, gradual changes in scow draft may also indicate that dredged material is leaking from the scow, or water is leaking into the scow's hull. If gradual draft changes appear to occur regularly, the scow must be examined to determine if a leak is present.

d. After ensuring that all inspections have been performed at the dredging site, and compliance with all provisions and guidelines associated with scow loading and use has been met, scows must be brought to the designated grid cell, or coordinates, of the HARS, or other designated placement location, using the DGPS navigation systems of the tugboat and the ADISSPlay system onboard the tugboat. Placement in the appropriate location, and scow draft immediately prior to scow door opening, must be documented by the CDI using the ADISSPlay system while the scow position and draft information are monitored automatically by the ADISS system. Scows should be towed no faster than 2 knots, unless weather/sea conditions require higher speed to maintain safe and reliable navigation. Lengths of toelines should be no longer than 200 feet, unless weather/sea conditions require longer tow lengths to maintain safe and reliable navigation. Regardless of the conditions at the time of placement, tow lines must not be longer than 500 feet at the time of placement. CDIs must measure the distance from the towing vessel to the scow at the time of placement using the hand-held laser range finder and record the value on the TPL form.

e. If the ADISSPlay system does not show reliable DGPS coordinates in the vicinity of the designated placement grid or other designated placement location, or is not functional, the ADISSLt system must be used to locate the placement site and estimate the scow position during placement. Length of toelines must be measured using the hand-held laser range finder. The bearing to the scow from the towing vessel must also be noted at the time of placement. Tow lengths must be less than 200 feet unless ocean/weather conditions require longer lines for safe navigation. Vessel navigation must be maintained in the direction of the maximum grid dimension for all placements, to the greatest extent possible. The angular displacement of the scow from the towing vessel course (track line) must be estimated by sighting the scow behind the towing vessel while holding a protractor with the 90° mark pointing directly behind the towing vessel in line with the vessel track line(wake). A pencil must then be used to point at the scow, to the left or right of the 90° mark, to determine the angular displacement off of the towing vessel track line, recorded as degrees to the left or right when sighting the scow, rounded to the nearest 5°. Scows directly behind the tug

would be reported at 0° angular displacement. (a scow displaced 10° to the left of the 90° mark on the protractor would be reported as 10° left, etc.) This angle must be recorded on the TPL form, along with the following information if this option is used:

- 1) Coordinates of the tug at the start and end of placement
- 2) Length of tow line (distance from tug stern to scow bow)
- 3) Angular displacement of scow from trackline of tug
- 4) Estimate of lateral displacement of scow from the towing vessel trackline
- 5) Estimated longitude and latitude of scow at time of door opening and closing

The lateral displacement may be estimated by the following formula (for angular displacements up to 20°):

displacement = towlength x sine of angular displacement

The following values of sine may be used:

5 degrees of angular displacement - sine = 0.087
10 degrees of angular displacement - sine = 0.174
15 degrees of angular displacement - sine = 0.259
20 degrees of angular displacement - sine = 0.342

For example, when using a 200 foot towlength, a scow is observed to track 15 degrees to the right of the tug trackline. The estimated displacement of the scow is

200 feet x 0.259 = 52 feet

This means that when plotting the scow position on a map of the placement area, the scow would be plotted ~50 feet to the right and ~200 feet behind the position of the tug. The errors in estimating increase with longer towlengths. Because of this, it is critical to maintain as short a towlength as possible if the ADISSLt system is used for placement. Perimeter grid cells are not permitted for use if ADISS/ADISSPlay is not functioning. The closest adjacent grid cell toward the center of the grid must be used.

f. If the ADISSPlay and ADISSLt systems do not show reliable DGPS coordinates in the vicinity of the designated placement grid or other designated placement location, or is not functional, or weather/sea conditions prevent reliable maneuvering of the scow, the tugboat DGPS must be used to position the scow at the center of the grid, or other backup location in the grid as specified by NY District. Length of towlines must be measured using the hand-held laser range finder. The bearing to the scow from the towing vessel must also be noted at the time of placement. Tow lengths must be less than 200 feet unless ocean/weather conditions require longer lines for safe navigation. The angular displacement of the scow from the towing vessel course (track line) must be estimated by sighting the scow behind the towing vessel while holding a protractor. This angle must be recorded on the TPL form, along with the following information if this option is used:

- 1) coordinates of the tug at the start and end of placement
- 2) length of tow line (distance from tug stern to scow bow)

- 3) angular displacement of scow from trackline of tug
- 4) estimate of lateral displacement of scow from the towing vessel trackline
- 5) estimated longitude and latitude of scow at time of door opening and closing

g. If weather and/or sea conditions prevent reliable measurement of towing distance using the hand-held laser range finder, the towing vessel's radar must be used to determine the distance and bearing to the scow.

h. If neither the ADISS/ADISSPlay, ADISSLt, nor the tugboat DGPS systems provide navigation coordinates, the scow must be brought to a suitable location for correction of navigation problems. Placement of dredged material is not allowed if a reliable DGPS system is not providing coordinates at the time of scow door opening.

i. The grid center, or other backup placement location, will only be used if steps (d) and (e) are attempted without success, or when inclement weather/sea conditions prevent reliable maneuvering of the scow. The grid center should not be used if inclement weather conditions persist. Placement at the grid center is an emergency procedure. Regardless of the size of the grid, the scow must be towed with a length of towline such that, at the time of placement, both the scow and towing vessel are both within the grid boundary. If an ADISS system fails after leaving the dredging site, the scow must not be used again until a fully operational ADISS system is installed. However, if SAIC personnel are onboard or on their way to the transporting vessel to service/repair the ADISS/ADISSPlay system, the scow may be used to transport dredged material while using the ADISSLt system. The ADISSLt system may be used for up to two consecutive placement trips while awaiting SAIC personnel to service the equipment. No more than two consecutive trips to ocean placement sites may be made without the ADISS/ADISSPlay equipment fully functioning.

j. If radio communication with the scow is lost, preventing operation of radio-controlled scows, a person must board the scow to either fix the problem or operate the scow. Voice contact, through radio or direct communication, must be maintained with the scowman, or other personnel, riding aboard the scow, for the duration of the placement trip. Scow opening must only occur when a direct, voice command has been given to personnel aboard the scow, or when radio communication with radio-controlled scows is maintained. If the radio control system can not be fixed, the scow must be towed to the designated placement location and manually discharged according to the guidelines and instructions contained in paragraphs d through i, above. If the scow's engine can not be operated by the radio-control system, and the scow is boarded to attempt to fix the engine, the scow must be located at the designated placement position if the scow's engine is started.

Past use of radio-controlled scows revealed that manually starting a scow's engine after a failed radio-controlled engine start could cause the "scow open" command to be completed, causing the scow to dump at the location of engine startup. Any problems with a radio control system must be fixed prior to subsequent use of the scow. The CDI must note on the TPL form any time the radio-controlled scow system malfunctions and manual discharge is required, and immediately notify the Notification List.

k. A primary and backup radio must be onboard all manned scows, along with

backup power supplies. Hand signals must never be used will to direct the scowman regarding scow opening/closing. All personnel aboard scows, or who may board scows while transporting dredged material, must be informed that discharge of dredged material will only be allowed while voice communication is maintained.

1. 1. To help ensure that dredged material is transported and placed at the HARS in accordance with the guidelines described above, the following checklist has been prepared. Items in the checklist must be reviewed by the CDI at the dredging site, while underway, and at the HARS. Any item on the checklist that receives a "NO" answer must be reported immediately to the Notification List. If the "NO" answer is related to the ADISS/ADISSPlay/ADISSLt systems, SAIC must also be notified immediately at (401) 261-4931 or (401) 847-4210. These discrepancies must be noted on the TPLF associated with the trip using the letter-number code associated with each item. Each placement trip to the HARS must use a checklist, to be completed by the CDI working aboard the towing vessel, using the ADISSPlay software or by hand. A supplemental report must be filed and faxed to NY District at (212) 264-4260 if space on the TPLF is not sufficient to explain the discrepancy. The first time a "NO" answer occurs, the notification list must be notified. However, if the same item continues to receive "NO" answers, telephone calls should not be made until the problem is corrected, or if more than three additional trips occur without the deficiency being corrected.

Checklist copies must be signed and dated by the CDI and placed in a file. All original, signed checklists associated with this project must be submitted to the NY District on a weekly basis for the duration of the project. Checklists must be hand delivered or mailed to:

U.S. Army Corps of Engineers, NY District
Dredged Material Management Section
Room 1937, CENANOP-SD
26 Federal Plaza
New York, NY 10278-0090
Attn: Dr. S.C. Knowles

m. Original copies of TPL forms for each trip to the HARS, signed and dated by the CDI on duty during each trip, must be submitted to the Dredged Material Management Section at the above address at the completion of the project, or after a CDI has discontinued working as a CDI on the project, either temporarily or permanently.

n. If the CDI answers "NO" to any item in Part A, dredged material must not be transported from the dredging site until any discrepancies have been corrected. Only after all requirements have been met, equipment/supplies are operable and available, required information has been supplied, etc., as indicated by the CDI being able to answer "YES" to all items, is dredged material allowed to be transported from the dredging site.

o. Two exceptions to this exist: 1) If a backup scow is used, it should be noted on the TPL form, but normal placement can continue. 2) When the ADISS/ADISSPlay systems are malfunctioning, dredged material may be transported from the dredging site if SAIC personnel are onboard to

fix/service the equipment, or if ADISSLt is functioning. If any of the items in Part A answered "NO" by the CDI, the Notification List must be contacted immediately, even if SAIC personnel are onboard the towing vessel. Telephone numbers of personnel on the Notification List must be supplied to all CDIs working on the dredging project. Reports of discrepancies or unusual events must also be faxed by the CDI as soon as possible to (212) 264-4260 and other numbers if required by NY District. Discrepancies must be noted on the TPLF using the code letter/number associated with each item in the lists. A supplemental report must also be faxed if the incident can not be adequately documented on the TPLF.

p. Parts B and C of the checklist pertain to activities/requirements of CDIs while underway to the designated placement location and at the placement location, respectively. All of these items must be verified by the CDI aboard the transportation vessel. If any of these items are answered "NO" by the CDI, the Notification List must be contacted immediately, and any supplemental reporting completed.

PART A. DREDGING SITE (Checklists)

A1___ A legible copy of the permit conditions and guidelines, as related to scow loading, transport, and dredged material placement, is in possession of the CDI.

A2___ A legible copy of the Placement Guidelines and placement grid map received at the pre-construction meeting, or any additional instructions or guidelines as related to scow loading, transport, and dredged material placement, is in possession of the CDI.

A3___ The scow being used to transport the dredged material is mechanically sound, does not leak, and has no visible damage that may cause leaking.

A4___ A regularly used scow was used.

A5___ A scow loading table for the scow being towed is aboard the towing vessel and available for the CDI to use.*

A6___ An estimated dredge material density has been provided by the dredging contractor. Estimated density is: _____

A7___ The material being dredged has been observed by the CDI for general characteristics (grain size, color, consistency). Majority of material is dry/thick/watery, color:_____, mud/sand/gravel/rock.

A8___ For scows loaded with any rock (rock is defined as any stones greater than 2.5 inches in diameter), the estimated rock percent has been recorded on the TPL form.

A9___ An estimate of the volume of material in the scow has been calculated by the CDI using the scow loading table and recorded on the TPL form.

A10___ Scow contains less volume of dredged material than the maximum volume allowed for placement during a single trip.

If a scow contains a volume of dredged material greater than the maximum volume allowed for placement during a single trip, the volume must be decreased below the maximum volume before the dredged material can be transported away from the dredge site.

A11__ The scow monitoring systems (ADISS, ADISSPlay, and ADISSLt) are fully operational and are functioning. Any ADISS/ADISSPlay/ADISSLt malfunctions must be reported immediately to the ADISS contractor (401-847-4210 or 401-261-4931). Transportation vessels are not allowed to leave the dredging site with any dredged material if the ADISS/ADISSPlay/ADISSLt systems are not fully operational. However, if SAIC personnel are onboard the transporting vessel to service the equipment, or in communication with the CDI via cellphone or radio, or on the way to repair/service the equipment, the vessel may depart from the dredging site while malfunctions are being repaired/corrected. In this case, the ADISSLt equipment must be used and the scow may be transported from the site. If the ADISS/ADISSPlay equipment is not functional, the ADISSLt equipment may only be used on two consecutive offshore placement trips using an affected scow. No more than two consecutive trips without ADISS/ADISSPlay can ever be made.

A12__ The scow draft pressure value, as displayed by the ADISSPlay system, has been recorded on the TPL form. (this value should be noted a few minutes after leaving the dredging site, while being towed, to allow the material in the scow to shift and settle)

A13__ A fathometer is fully operational, functioning, and installed on the transporting vessel.

A14__ A radio onboard the transporting vessel is operable and can receive NOAA marine weather forecasts and ocean conditions.

A15__ Current and forecasted marine weather and ocean conditions at the designated placement location have been monitored on the radio and will allow safe and accurate placement of dredged material. Winds at a reporting station closest to the placement location are presently blowing _____ from the ____, with _____ ft seas. Winds forecast for the placement location are _____ from the ____, with _____ seas.

A16__ DGPS navigation system is fully operational, functioning, and installed aboard the transporting vessel.

A17__ A radar system is fully operational, functioning, and installed aboard the transporting vessel.

A18__ Radio-control system for scow operation (if scowman is not used) is fully operational and functioning.

A19__ Radio and backup radio system, for communication between scows and towing vessels, are aboard scow (if scowman is used), and are fully operational and functioning.

A20__ Hand-held laser range finder, manufactured no earlier than 1998, with at least a 1000 foot range, is aboard towing vessel, fully operational and

functioning, and available for CDI use, along with a set of backup batteries.

A21__ A fully operable cell phone that can send and receive calls is in the possession of the CDI onboard the towing vessel.

A22__ A protractor is available for use by the CDI aboard the towing vessel.

A23__ A pair of dividers, for map/chart distance scaling, is available for use by the CDI aboard the towing vessel.

A24__ An up-to-date nautical chart that includes the placement area is available for use by the CDI.

A25__ CDI is provided full access to fathometer, radar, vessel DGPS, and any other equipment/information necessary to conduct CDI duties.

A26__ Full compliance with any other contract or regulatory requirements related to dredged material placement has been met.

A27__ Time of departure from dredging site has been recorded on the TPL form.

A28__ All other information relative to the dredging site has been entered into the TPL form.

PART B . ENROUTE TO THE PLACEMENT LOCATION (Checklists)

B1__ ADISS scow pressure/draft has been recorded on the TPL form thirty minutes after leaving the dredging site.

B2__ Scow draft is being monitored with ADISSPlay system to detect sudden or gradual changes in draft.

B3__ If the CDI is also a NMFS certified marine mammal/endangered species observer, observation and appropriate reporting is conducted.

B4__ Scow draft pressure varies less than 20 points, or 1.5 feet of draft, from the value at the dredge site.

B5__ A gradual increase or decrease in scow draft pressure values, exceeding 12 points (or actual scow draft of more than 1 foot) is not observed.

B6__ Scow does not appear to be listing.

B7__ Water behind scow has been observed, if possible, to ensure that no turbid water plumes are present.

B8__ A fixed reference position, such as a channel marker, has been used to ensure that the towing vessel DGPS and scow DGPS positions agree.

B9__ Marine weather and sea conditions present and forecast to be present at the placement location are periodically monitored. The CDI and towing vessel captain may decide to return to the dredging site based on an updated

marine forecast.

PART C. IN THE VICINITY OF THE PLACEMENT LOCATION (HARS AND/OR REEF)

For artificial reef placement:

C1___ Water depths were continuously monitored (a reading taken at least every 5 seconds) with the towing vessel fathometer while navigating anywhere within the reef boundary.(towing vessel crew must also monitor water depths)

C2___ All water depths observed anywhere within the reef boundary were at least 15 feet deeper than the permitted water depth at the reef.

If any depths less than or equal to 15 feet deeper than the permitted reef depth, or other depth specified by NY District, are observed anywhere at the reef site, using the towing vessel fathometer, the incident must be reported immediately to the Notification List, and the Artificial Reef manager, and all areas within 200 feet of the shallower water must not be used for placement of dredged material. Other vessels used for transportation of dredged rock must be notified of the observation, provided coordinates, and instructed not to place additional rock closer than 200 feet of the reported position. Even if previous trips reported a depth within 15 feet of the permitted depth, or other specified depth, additional coordinates, even if they appear to be similar to previous reports, should be recorded, along with the observed depth.

C3___ If depths less than or equal to 15 feet deeper than the permitted reef depth, or other specified depth, are observed anywhere in the reef, the latitude, longitude and depth has been recorded.

LATITUDE _____ LONGITUDE _____ DEPTH_____

For all ocean placement locations:

C4___ Scow radio control equipment operates without any problems.

C5___ Placement occurred in correct grid cell and was coordinated with towing vessel crew.

C6___ Scow draft information immediately prior to scow door opening has been recorded on the TPL form.

C7___ TPL form was completed using the ADISSPlay system, or by hand if ADISSPlay malfunctions, within 30 minutes of scow door opening.

C8___ ADISS/ADISSPlay/ADISSLt equipment, transportation vessel navigation equipment, and all other equipment related to placement of dredged material worked without any problems.

C9___ All activities associated with placement of dredged materials appeared to be conducted in a safe manner.

C10__ Nothing occurred that may have resulted in incorrect placement of dredged material.

C12__ TPL form and any supplemental reports faxed to (212) 264-4260 and (201) 433-9232 within 6 hours of scow door, or hopper bin, opening.

C13__ For reef placement, TPL form also faxed to the applicable State Artificial Reef coordinator within 8 hours of scow door opening.

C14__ A copy of the TPL form has been signed by the CDI and placed in a file/folder to become part of the permanent record of the trip. All signed TPL forms must be submitted to NY District when offshore transport of dredged material associated with the project ends, or when the CDI finishes working on the project.

* Scow loading tables for each scow used on a dredging project must be provided to the CDIs working on the project. CDIs must be provided an estimated dredged material density by the dredging contractor for each loaded scow. The dredged material density and scow draft must be used by the CDIs to estimate the volume of dredged material in each scow at the start of each trip to the designated dredged material placement location. This estimated volume must be recorded on the USACE Transportation and Placement Log (TPL) form.

8. The Contractor shall prepare a Daily Report of Operations form and shall furnish signed copies thereof to the Contracting Officer, or his representative, on a daily basis. Copies shall also be faxed to the HARS Manager at (212) 264-4260. A copy of the form is attached at the end of Section 00901. Further instructions on the preparation and submittal of these reports will be provided at the pre-dredging conference.

9. Buoy Removal.

9.1 The Contractor shall notify the Coast Guard, with a copy to the Contracting Officer, at least 30 days prior to the date desired for having buoys removed or relocated which interferes with dredging operations. Requests may be made telephonically at (718) 354-4191, or by writing to:

Commander, U.S. Coast Guard Activities New York
212 Coast Guard Drive
Staten Island, NY 10305

10. Measurements and Payment.

Measurement and Payment shall be in accordance with the applicable paragraphs in Section 01270: MEASUREMENT AND PAYMENT.

- End of Section -

SECTION 11010

DIGITAL PHOTO DOCUMENTATION AND COMMUNICATIONS

PART 1 GENERAL

1.1 Contractor Representative

The Contractor is responsible for visually documenting the entire project using a digital camera and a secure digital photo management system. The Contractor shall designate a representative who shall:

1. Take the digital photos
2. Down load them into a secure digital photo management system
3. Add captions, full descriptions, search fields and key words to each photo
4. Link each photo to the project's schedule by attaching the appropriate activity id to each photo
5. Transfer a copy of all photos and their related notes, key words, captions, activity id's to the Government representative on a weekly basis or as requested.

1.1.1 This person shall be trained by a factory certified trainer to use the digital photo management system.

1.1.2 The Contractor shall supply the following:

1. Digital photo management system. This master system shall include the hardware and software necessary to operate the digital photo management system. Descriptions of the hardware and software are provided in PART 2 - PRODUCTS.
2. Maintenance, upgrades and support for the digital photo management software, the camera, and the computer for the duration of the project.
3. Two (2) digital cameras (one will be utilized by the Contractor's representative, the other by the Government representative).

1.1.3 The digital camera, digital photo management system software, computer, printer and all associated hardware (cables, connectors, etc.), accessories and documentation shall be turned over to the Government at the end of the project. All components shall be in good condition and shall be fully operational.

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Digital Photo Management System; GA A.

Contractor shall submit 7 copies of product brochures of the digital photo management system, the digital camera, computer and printer.

1.3 MEASUREMENT AND PAYMENT

No separate measurement and payment shall be made for the work performed under this section and all costs associated therewith will be included in the applicable contract price to which the work pertains.

PART 2 PRODUCTS

2.1 Contractor shall provide products as specified below:

2.1.1 Digital Camera

The digital camera shall be able to download images to the computers provided by the Contractor. The digital camera utilized shall be on the digital photo management system's recommended list, shall be directly supported by the digital photo management system software's drivers, and shall include the following:

1. Carrying case
2. Minimum of an 8 megabyte PCMCIA memory card
3. Additional 16 MB memory card
4. Warranty for the life of the project

2.1.2 Secure Digital Photo Management System

The computer software system utilized by the Contractor to document the project with digital photo shall be capable of providing all of the requirements of this specification.

2.1.2.1 The Contractor shall provide the following software and software related services:

1. One Photo Management System to be located on the jobsite.
2. One Photo Management System to be located at an office to be designated by the Government.
3. Software enhancements and technical support for the life of the project.
4. Two (2) days of system design, setup and on site training by a factory authorized training representative for the Photo Management System. These services shall be in place and fully operational when the on site training occurs.

2.1.2.2 The digital photo management system shall:

1. Be an established, commercially available product designed specifically to provide secure visual documentation that has been on the market for at least three (3) years.

2. Download photos and voice from the camera directly into a high-speed database without requiring the use of the camera's down load software or TWAIN drivers.
3. Keep an unchangeable log of each down load, and document the exact date and time of the down load.
4. Have red lining capabilities that allows the user to place an unlimited number of layers of text, lines, etc. on top of the photos without altering the actual photo, and allow these red lining layers to be shared between systems easily.
5. Be able to automatically export photos, text descriptions, voice, etc. and create a secure packet that can be sent to another like system. The receiving system shall be able to automatically import all of the information into its database.
6. Secure the photos as soon as they are down loaded so that they cannot be modified.
7. Provide a mechanism for verifying the integrity of the photos each time they are viewed to ensure that they have not been modified.
8. Provide visual indicators that the photos are secure.
9. Automatically store the date and time with each photo where it cannot be modified.
10. Automatically identify each photo with the serial number of the system that down loaded it, the down load number, the photo number from the roll, and the person's name that took the photo. This information must be protected so that it cannot be modified.
11. Allow a caption of up to 30 characters to be attached to each photo. This caption shall appear automatically in the photo browser when the mouse pointer passes over the thumbnail of the photo.
12. Allow a permanent description of up to 5,000 characters to be placed on each photo. Once the photo is filed this description must be permanent.
13. Allow additional text of up to 5,000 characters to be placed on each photo.
14. Have at least 10 user defined search fields so the photos can be categorized by building, floor, area, etc. as directed by the Government representative.
15. Be capable of printing at least 8 photos per page complete with their captions, dates and times, and text automatically.
16. Provide a file management system that allows an unlimited number of photos to be archived and retrieved easily. The system must be capable of automatically splitting its image database into multiple files that can be relocated by the system to removable media if desired (zip drives, read-write optical drives, etc.)
17. Automatically store the photos in reverse date and time order.
18. Allow the photos to be retrieved by date range instantly.
19. Allow the photos to be located by key words.
20. Include built-in file transfer capabilities that will allow photos to be transferred easily from system to system using built-in modems software, floppy disk, internet, etc. This file transfer system shall have the ability to automatically select all new photos from the database, place a copy of these photos in a secure transfer packet along with their notes, key words, etc., and send this secure packet to the Government's representative's digital photo management system.
21. Include the ability to link the digital photos directly to the project's schedule (Primavera P3, or Microsoft Project), and

view all of the photos for a given activity instantly directly from the schedule.

22. Include the ability to share the photos and their descriptions with parties that don't have a digital photo management system by creating diskettes with photos and their text descriptions, dates and time, and voice. A royalty free viewer shall be placed on each of these diskettes that will allow the receiving party to view the photos and their descriptions.
23. Include the ability to store at least 80 photos (without voice) on one 1.44 MB floppy disk.
24. Be able to record and play voice with each photo.
25. Include a spell checker that will check the contents of the descriptions placed on the photos.
26. Be capable of linking directly with a MAPI compliant e-mail program to transfer the photo albums or secure packets.
27. Be capable of creating web pages of photographs including the main index page and photo pages. Web pages shall include thumbnails, photos, textual descriptions of the photos and user defined headers.
28. Provide security options to limit user's access to the photos.

2.1.3 Weather Cameras

The Contractor shall provide LYNX photo imaging processor software and file manager or equal with two or more weather proof digital cameras installed to monitor all facets of the project site at 5 second intervals. Each dredge and drill boat shall be monitored 24 hours per day. Failure to provide monitoring for more than 8 hours in a 30 calendar day period will be cause for retainage of payment. The system shall include a WEB site for USACE, NYD as well as all hardware wiring, interface, maintenance and replacement due to vandalism or damage and fees for the contract duration.

2.1.4 Printer

The Contractor shall provide a color inkjet printer equal to an Epson Stylus 800. Printer shall meet the following minimum requirements:

1. 1440 x 720 dpi minimum resolution
2. Printer driver shall indicate status of printer and ink cartridges
3. Printer shall have separate color and black ink cartridges

2.1.5 Accessories

The following accessories shall be provided.

1. One (1) headset microphone equal to a Labtec C-315 shall be provided to record voice on the photos
2. Twenty (20) 100 MB ZIP disks
3. Six (6) backup tapes
4. Five hundred (500) 1.44 MB diskettes
5. Five hundred (500) sheets photo quality paper for printer
6. Six (6) color ink refill cartridges for printer
7. Three (3) black refills for printer

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall take regular photos of the Project as indicated in paragraph 3.2 below. These photos, used in conjunction with the approved Project Schedule, shall be used to measure the progress of the work, to aid in evaluating time extensions, communicate any problems visually to the Government representative, clarify and document RFI's (request for information) and to provide the basis of all progress payments.

3.2 Photo Requirements

The Contractor shall visually document the Project as follows:

1. Each Friday the Contractor shall take at least one photo of each activity listed on the schedule that is a) in progress or b) is supposed to be in progress, and any activity that is in the schedule's critical path. The activity ID shall be on the activity id field of each photo where it can be linked automatically to the schedule. Multiple activities may be linked to each photo.
2. Each Friday one photo shall be taken from the same locations around the jobsite including artificial reef placement site and upland off loading facility. These locations will be determined at the beginning of the job by the Government representative. They shall be identified as one of the search fields. For example, one of the photos may be taken each week from the north property line and it would be identified N1 in the search field. W1 would identify the photo taken from the west property line, etc. This will allow the project to be viewed from that point instantly using this search field.
3. Photos shall be taken immediately of all problem areas.
4. Where possible, photos shall be taken of all items that are included in a Request for Information (RFI). These photos shall be identified in a search field entitled "RFT". A 1.44 MB diskette or an attachment to e-mail (if the RFI is submitted by e-mail) shall accompany the request for information containing a copy of the photos showing the item in question. These photos shall be viewable complete with their text descriptions, dates, times, etc. by viewer software that can be distributed royalty free.
5. Photos shall be taken of other miscellaneous items as directed by the Government representative.
6. Photos shall also be categorized using the user defined search fields as directed by the Government representative.

3.3 Transferring Photos

A packet transfer of all the new Project photos shall be sent to the Government representative each week by one of the following methods as directed by the Government representative:

1. ZIP disk

2. Floppy diskette (1.44 MB - Windows 95 format)
3. Internet e-mail attachment
4. FTP transfer to Government's ftp location

Packets may be sent on a more frequent basis if requested by the Government representative.

3.4 Backup

The Contractor shall be responsible for backing up the entire digital photo management system computer each week using the tape backup unit. Weekly backup shall be rotated between 6 tapes. A complete weekly backup shall be done each Friday, and the most current complete backup tape shall be stored off-site in a safe location. An incremental tape backup shall be done daily automatically each night.

3.5 Access to Digital Photos

Government's representative shall have complete access to the digital photo management computer and all photos at all times.

3.6 End of Project

At the end of the project the entire digital photo management system specified in this section shall be turned over to the Government representative.

-- End of Section --