W912WJ-04-B-0011

US Army Corps
of Engineers ®
New England District

Section 1135 Coastal Wetland Ecosystem Restoration Project

Allin's Cove
Barrington, Rhode Island

Construction Solicitation And Specifications

July 2004

SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)	1. SOLICITATION NO. W912WJ-04-B-0011	2. TYPE OF SOLICITATION [X] SEALED BID (IFB) [ ] NEGOTIATED (RFP)	3. DATE ISSUED 26-Jul-2004	PAGE OF PAGES 1 OF 59

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W13G86-4173-8936	6. PROJECT NO.

7. ISSUED BY CODE W912WJ	8. ADDRESS OFFER TO (If Other Than Item 7) CODE
U S ARMY ENGR DISTRICT, NEW ENGLAND 696 VIRGINIA RD CONCORD MA 01742-2751	**See Item 7**
TEL: FAX: 978-318-8207	TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME MARLA LEVENSON	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 978-318-8757

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):

SPECIFICATIONS titled, "ECOSYSTEM RESTORATION, ALLIN'S COVE, BARRINGTON, RI" DATED JULY 2004.

DRAWINGS as listed in SECTION 00800, paragraph titled, "CONTRACT DRAWINGS AND SPECIFICATIONS"

SECTION 00700, CONTRACT CLAUSES, and SECTION 00800, SPECIAL CONTRACT REQUIREMENTS.

THIS SOLICITATION IS UNRESTRICTED PURSUANT TO PUBLIC LAW 100-656, SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM.

*Para 1.1 Section 00800

11. The Contractor shall begin performance within 15 calendar days and complete it within * calendar days after receiving [ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. (See Par 1.1 00800 .)

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.) [X] YES [ ] NO	12B. CALENDAR DAYS 10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 2 copies to perform the work required are due at the place specified in Item 8 by 02:00 PM (hour) local time 25 Aug 2004 (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 [X] 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 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

OFFER ***(Must be fully completed by offeror)***

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*	15. TELEPHONE NO. *(Include area code)*
	16. REMITTANCE ADDRESS *(Include only if different than Item 14)* **See Item 14**
CODE / FACILITY CODE	

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS	SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation – give number and date of each)

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*	20B. SIGNATURE	20C. OFFER DATE

AWARD ***(To be completed by Government)***

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*	**ITEM**	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO ☐ 10 U.S.C. 2304(c) ☐ 41 U.S.C. 253(c)
26. ADMINISTERED BY CODE		27. PAYMENT WILL BE MADE BY: CODE

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _____ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

☐ 29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*		31A. NAME OF CONTRACTING OFFICER *(Type or print)* TEL: EMAIL:	
30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE

Section SF 30 - BLOCK 14 CONTINUATION PAGE

BIDDING SCHEDULE
REFER TO SECTION 01270 – MEASUREMENT AND PAYMENT.

Section 00010 - Solicitation Contract Form

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

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	EXCAVATION MATERIAL /UPLAND DISPOSAL AREA				

TOTAL NET AMOUNT $ (SUBCLINS 0002AA,AB,AC,AD) _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AA	HIGH MARSHLAND 2.8 ACRES EXCAVATED TO El.3.1	5,400	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AB	LOW MARSHLAND 0.6 ACRE EXCAVATED TO El. 1.4	2,100	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AC	TIDAL CREEKS EXCAVATION	340	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AD	CHANNEL EXCAVATION STA. 4+25 TO 9+89	2,000	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	SAND EXCAVATION FOR SAND SPITS				

TOTAL NET AMOUNT $ (SUBCLINS 0003AA,AB,AC) _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AA	NORTH SAND SOURCE AREA	2,300	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AB	CHANNEL EXCAVATION STA. 0+00 TO STA. 4+25	1,600	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AC	SOUTH SAND SOURCE INSIDE UPLAND DISPOSAL AREA	4,700	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	GRAVEL FILL MATERIAL FOR BYWAY ROAD	85	Cubic Yard	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005	PROVIDE OSPREY NESTING PLATFORMS	2	Each	$ _____	_____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006	EXTEND EXISTING 15" DRAINAGE PIPE 20 LF AND CONSTRUCT NEW CONCRETE HEAD WALL	1	Lump Sum	$ _____	$ _____

NET AMOUNT $ _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007	SEEDING DISPOSAL AREA	1	Lump Sum	$ _____	$ _____

NET AMOUNT $ _____

ESTIMATED TOTAL AMOUNT $_____

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at: Government

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001 - 0007	30-MAR-2005	1	ENGINEERING/PLANNING DIV 696 VIRGINIA ROAD CONCORD MA 01742-2751 FOB: Destination	E6L0000

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY REFERENCE

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
52.214-18	Preparation of Bids-Construction	APR 1984
52.214-19	Contract Award-Sealed Bidding-Construction	AUG 1996
52.225-10	Notice of Buy American Act Requirement--Construction Materials	MAY 2002
52.232-38	Submission of Electronic Funds Transfer Information with Offer	MAY 1999

CLAUSES INCORPORATED BY FULL TEXT

52.003-4002 BIDS RECEIVING DESK

Bids, if submitted in person or by messenger, shall be delivered to the Bids Receiving Desk , Building 1, Contracts Branch, Contracting Division, at the above address, prior to the time fixed for opening of bids. Bidders who attend the bid opening may deliver bids directly to the Contracting Officer in the New England Conference Room.

52.003-4014 INQUIRIES

Telephone inquiries relating to this solicitation should be directed as follows:

New England District, Corps of Engineers
Procurement of Plans and Specifications,
Prospective Bidders List, Bid Results,
and Award Information ..... (978)318-8757

Technical Inquiries on Plans and
Specifications ..... (978)318-8737

52.003-4015 MAGNITUDE OF PROJECT

The estimated cost of the work is between $250,000.00 and $500,000.00.

52.003-4021 PLACE OF BID OPENING

Bids will be publicly opened at the appointed time at the U. S. Army Engineer District, New England, 696 Virginia Road, Concord, MA 01742-2751, in the New England Conference Room.

52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989)

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid, (3) by letter or telegram, or (4) by facsimile, if facsimile bids are authorized in the solicitation. The Government must receive the acknowledgment by the time and at the place specified for receipt of bids.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

(End of clause)

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 Contracting Officer, US Army Corps of Engineers, New England, 696 Virginia Road, Concord, MA 01742-2751.

(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)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:
Name: Barbara Blumeris
Address: US Army Corps of Engineers, New England District, 696 Virginia Road, Concord, MA 01742-2751
Telephone: (978)318-8737

(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.hill.af.mil
http://www.hq.usace.army.mil/cepr/asp/library/efar.asp
http://acqnet.saalt.army.mil/LIBRARY

(End of provision

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to –

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provison _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of clause)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence

Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

(End of provision)

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

"Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

___ TIN:._____

___ TIN has been applied for.

___ TIN is not required because:

___ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

___ Offeror is an agency or instrumentality of a foreign government;

___ Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

___ Sole proprietorship;

___ Partnership;

___ Corporate entity (not tax-exempt);

___ Corporate entity (tax-exempt);

___ Government entity (Federal, State, or local);

___ Foreign government;

___ International organization per 26 CFR 1.6049-4;

___ Other _____

(f) Common parent.

___ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

___ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern 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 its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ( ) is a women-owned business concern.

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that-

(i) The Offeror and/or any of its Principals-

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification,

in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (MAY 2004)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990 (NAICS code).

(2) The small business size standard is $17.02 million.

(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.

(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 service-disabled 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; in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(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.

52.219-19 SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (OCT 2000)

(a) Definition.

"Emerging small business" as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry Classification System (NAICS) code assigned to a contracting opportunity.

(b) [Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.] The Offeror [ ] is, [ ] is not an emerging small business.

(c) (Complete only if the Offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees	Avg. Annual Gross Revenues
____ 50 or fewer	____ $1 million or less
____ 51 - 100	____ $1,000,001 - $2 million
____ 101 - 250	____ $2,000,001 - $3.5 million
____ 251 - 500	____ $3,500,001 - $5 million
____ 501 - 750	____ $5,000,001 - $10 million
____ 751 - 1,000	____ $10,000,001 - $17 million
____ Over 1,000	____ Over $17 million

(End of provision)

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) ( ) It has, ( ) has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) ( ) It has, ( ) has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)

(a) Executive Order 13148, of April 21, 2000, Greening the Government through Leadership in Environmental Management, requires submission of this certification as a prerequisite for contract award.

(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 in 40 CFR 372.65;

( ) (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 the following Standard Industrial Classification (SIC) codes or their

corresponding North American Industry Classification System sectors:

(A) Major group code 10 (except 1011, 1081, and 1094.

(B) Major group code 12 (except 1241).

(C) Major group codes 20 through 39.

(D) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).

(E) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or

( ) (v) The facility is not located within the United States or its outlying areas.

(End of clause)

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 indebtness 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 disclosure 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 provision)

CLAUSES INCORPORATED BY REFERENCE

52.202-1 Alt I	Definitions (Jun 2004) --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 2003
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	OCT 2003
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
52.219-8	Utilization of Small Business Concerns	MAY 2004
52.222-3	Convict Labor	JUN 2003
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
52.223-5	Pollution Prevention and Right-to-Know Information	AUG 2003
52.223-6	Drug-Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.225-13	Restrictions on Certain Foreign Purchases	DEC 2003
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
52.227-4	Patent Indemnity-Construction Contracts	APR 1984
52.228-2	Additional Bond Security	OCT 1997
52.228-11	Pledges Of Assets	FEB 1992
52.228-12	Prospective Subcontractor Requests for Bonds	OCT 1995
52.228-14	Irrevocable Letter of Credit	DEC 1999
52.228-15	Performance and Payment Bonds--Construction	JUL 2000
52.229-3	Federal, State And Local Taxes	APR 2003
52.232-5	Payments under Fixed-Price Construction Contracts	SEP 2002
52.232-17	Interest	JUN 1996
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
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 Alt I	Accident Prevention (Nov 1991) - Alternate I	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
52.244-6	Subcontracts for Commercial Items	MAY 2004
52.246-12	Inspection of Construction	AUG 1996
52.248-3	Value Engineering-Construction	FEB 2000
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (May 2004) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 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 Alt A	Required Central Contractor Registration Alternate A	NOV 2003
252.205-7000	Provision 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
252.223-7004	Drug Free Work Force	SEP 1988
252.225-7012	Preference For Certain Domestic Commodities	JUN 2004
252.227-7033	Rights in Shop Drawings	APR 1966
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.236-7008	Contract Prices-Bidding Schedules	DEC 1991
252.242-7000	Postaward Conference	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
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

52.222-23 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
3.0%	6.9%

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 Rhode Island, Bristol County, Barrington.

(End of provision)

52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (JUN 2003)

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

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: NONE

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the

contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....
Item 2			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).
List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.
Include other applicable supporting information.

(End of clause)

52.231-5000 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE
MAR 1995)--EFARS

(a) This clause does not apply to terminations. See 52.249-5000, Basis for Settlement of Proposals and FAR Part 49.

(b) 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 for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region ____. 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 retroactive pricing, the schedule in effect at the time the work was performed shall apply.

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-

leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet.

(End of clause)

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (OCT 2003)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated

billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph
(e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports--(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a "second-tier subcontractor") a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts DisputesAct of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

52.232-5001 CONTINUING CONTRACTS (MAR 1995)--EFARS

(a) This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

(b) The sum of $5,000.00 has been reserved for this contract and is available for payments 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 one or more non-federal project sponsors will be reserved for this contract.

(c) Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs (f) and (i) below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

(d) 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.

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

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

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

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

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

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

52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under FAR 49.206-2(b). In evaluating a terminations settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

(d) Actual costs for each piece of equipment, or groups of similar serial or series equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.

(e) If equipment costs have been allocated to a contract using predetermined rates , those charges will be adjusted to actual costs.

(3) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.

(4) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of FAR 31.205-11).

(5) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(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.hill.af.mil
http://www.hq.usace.army.mil/cepr/asp/library/efar.asp
http://acqnet.saalt.army.mil/LIBRARY

(End of clause)

WAGE DETERMINATION

General Decision Number: RI030001 06/18/2004 RI1

Superseded General Decision Number: RI020001

State: Rhode Island

Construction Types: Building, Heavy (Heavy, and Marine) and Highway

Counties: Rhode Island Statewide.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) HEAVY, HIGHWAY AND MARINE CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	06/13/2003
1	08/15/2003
2	10/03/2003
3	10/17/2003
4	12/05/2003
5	12/12/2003
6	01/16/2004
7	03/05/2004
8	03/19/2004
9	05/14/2004
10	06/18/2004

ASBE0031-003 09/01/2003

	Rates	Fringes
Insulator/asbestos worker Includes application of all insulating materials, protective coverings, coatings, & finishings to all types of mechanical systems	$ 27.42	12.86

ASBE0201-004 07/11/2002

	Rates	Fringes
Hazardous Material Handler Includes preparation, wetting, stripping, removal scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems	$ 17.10	8.25

BOIL0029-001 10/01/2003

	Rates	Fringes
Boilermaker	$ 29.56	37%+5.34

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* BRRI0001-001 06/01/2004

	Rates	Fringes
Bricklayer, Stonemason, Pointer, Caulker & Cleaner	$ 28.45	15.05

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* CARP0094-001 06/01/2004

	Rates	Fringes
Carpenter; piledriver	$ 26.25	14.67
Diver Tender	$ 27.25	14.67
Diver	$ 38.05	14.67
Millwright	$ 27.00	14.67
Welder	$ 27.00	14.67

FOOTNOTES:

When not diving, the diver and diver tender shall receive the piledriver rate.

Work on free-standing stacks, concrete silos & public utility electrical power houses, which are over 35 ft. in height when constructed: $.50 per hour additional.

Work on exterior concrete shear wall gang forms, 45 ft. or more above ground elevation or on setback: $.50 per hour additional.

The designated piledriver, known as the "monkey": $.75 per hour additional.

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* CARP0094-002 06/01/2004

BUILDING CONSTRUCTION

	Rates	Fringes
Carpenter; piledriver; soft floor layer	$ 26.25	14.67
Diver Tender	$ 27.25	14.67
Diver	$ 38.05	14.67
Millwright	$ 27.00	14.67
Welder	$ 27.00	14.67

FOOTNOTES:

When not diving, the diver and diver tender shall receive the piledriver rate.

Work on free-standing stacks, concrete silos & public utility electrical power houses, which are over 35 ft. in height

when constructed: $.50 per hour additional.

Work on exterior concrete shear wall gang forms, 45 ft. or more above ground elevation or on setback: $.50 per hour additional.

The designated piledriver, known as the "monkey": $.75 per hour additional.

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* ELEC0099-002 06/01/2004

	Rates	Fringes
Electrician.....	$ 30.47	42%
Teledata System Installer.....	$ 22.85	17% + 4.88

FOOTNOTES:

Work of a hazardous nature, or where the work height is 30 ft. or more from the floor, except when working OSHA-approved lifts: 20% per hour additional.

Work in tunnels below ground level in combined sewer outfall: 20% per hour additional.

ELEV0039-001 09/15/2001

	Rates	Fringes
Elevator Mechanic.....	$ 30.665	7.455+A+B

FOOTNOTES:

A. PAID HOLIDAYS: Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Christmas Day; Plus the Friday after Thanksgiving Day.

B. Employer contributes 8% basic hourly rate for 5 years or more of service of 6% basic hourly rate for 6 months to 5 years of service as vacation pay credit.

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* ENGI0057-001 06/01/2004

	Rates	Fringes
Power Equipment Operator (power plants, sewer treatment plants, pumping stations, tunnels, caissons, piers, docks, bridges, subterranean & other marine and heavy construction work)		
GROUP 1		
BOOM LENGTHS, INCLUDING JIBS:		
150 ft. and over: +$1.25		

180 ft. and over: +$2.25

210 ft. and over: +$3.25

240 ft. and over: +$4.25

270 ft. and over: +$6.25

300 ft. and over: +$7.25...	$ 27.80	13.85+a
GROUP 2.....	$ 23.42	13.85+a
GROUP 3.....	$ 20.57	13.85+a
GROUP 4.....	$ 26.85	13.85+a
GROUP 5.....	$ 26.52	13.85+a
GROUP 6.....	$ 23.50	13.85+a
GROUP 7.....	$ 27.42	13.85+a

PAID HOLIDAYS:
New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

FOOTNOTES:
Hazmat work: $2.00 per hour additional.
Tunnel work: $2.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Digging machine, Ross Carrier, crane, lighter, locomotive, derrick, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, front end loader (3 yds. and over), vibratory hammer & vacuum truck.

GROUP 2: Fireman & oiler.

GROUP 3: Oiler on crawler backhoe.

GROUP 4: Bulldozer, bobcat, tractor, grader, scraper, pippin-type backhoe, roller, front end loader (less than 3 yds.), street and mobile-powered sweeper (3-yd. capacity), 8-ft. sweeper minimum 65 HP).

GROUP 5: Well-point installation crew.

GROUP 6: Heater, concrete mixer, stone crusher, welding machine, generator and light plant, gas and electric driven pump and air compressor.

GROUP 7: Boat & tug operator.

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* ENGI0057-002 05/01/2004

	Rates	Fringes
Power Equipment Operator (highway construction projects; water and sewerline projects which are incidental		

to highway construction
projects; and bridge projects
which are incidental to
highway construction projects)

GROUP 1
BOOM LENGTHS, INCLUDING
JIBS:
130 ft. and over: +$0.50

150 ft. and over: +$1.00

180 ft. and over: +$2.00

210 ft. and over: +$2.50

240 ft. and over: +$3.00

270 ft. and over: +$3.75	$ 24.45	13.85+a
GROUP 2	$ 22.98	13.85+a
GROUP 3	$ 17.03	13.85+a
GROUP 4	$ 19.73	13.85+a
GROUP 5	$ 23.43	13.85+a
GROUP 6	$ 23.05	13.85+a
GROUP 7	$ 18.70	13.85+a
GROUP 8	$ 22.03	13.85+a
GROUP 9	$ 22.50	13.85+a
GROUP 10	$ 22.88	13.85+a

FOOTNOTE: a. Any employee who works three days in the week in which a holiday falls shall be paid for the holiday.

PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Digging machine, crane, piledriver, lighter, locomotive, derrick, hoist, boom truck, John Henry's, directional drilling machine, cold planer, reclaimer, paver, spreader, grader, front end loader (3 yds. and over), vacuum truck, test boring machine operator, veemere saw, water blaster, hydro-demolition robot, forklift, economobile, Ross Carrier, concrete pump operator

GROUP 2: Fireman

GROUP 3: Oiler

GROUP 4: Oiler on truck crane, gradall & crawler crane

GROUP 5: Front end loader (less than 3 yds.), bulldozer & scraper

GROUP 6: Pippin-type backhoe, roller, bobcat, street sweeper

GROUP 7: Gas and electric drive heater, concrete mixer, stone crusher, light plant, welding machine, pump and compressor

GROUP 8: Mechanic & welder

GROUP 9: Shovel operator, front end loader & dragline

GROUP 10: Well point installation crew

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* ENGI0057-003 06/01/2004

BUILDING CONSTRUCTION

	Rates	Fringes
Power Equipment Operator		
GROUP 1		
BOOM LENGTHS, INCLUDING JIBS:		
150 ft. and over: +$1.25		
180 ft. and over: +$2.25		
210 ft. and over: +$3.25		
240 ft. and over: +$4.25		
270 ft. and over: +$6.25		
300 ft. and over: +$7.25..	$ 27.07	13.85+a
GROUP 2.....	$ 26.85	13.85+a
GROUP 3.....	$ 22.85	13.85+a
GROUP 4.....	$ 20.00	13.85+a
GROUP 5.....	$ 26.15	13.85+a
GROUP 6.....	$ 25.72	13.85+a
GROUP 7.....	$ 23.05	13.85+a

PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

FOOTNOTE: Hazmat work: $2.00 per hour additional. Tunnel work: $2.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Digging machine, Ross carrier, crane, lighter, locomotive, derrick, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, front end loader (3 yds. and over), vibratory hammer and vacuum truck

GROUP 2: Economobile-type equipment, forklift, concrete pump & on-site concrete plant

GROUP 3: Fireman & oiler

GROUP 4: Oiler on crawler backhoe

GROUP 5: Bulldozer, bobcat, tractor, grader, scraper, pippin-type backhoe, roller, front end loader (less than 3 yds.), street and mobile powered sweeper (3 yds. capacity),

8-ft. sweeper (minimum 65 hp)

GROUP 6: Well point installation crew

GROUP 7: Heater, concrete mixer, stone crusher, welding machine, generator for light plant, gas and electric driven pump & air compressor

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IRON0037-001 06/01/2003

	Rates	Fringes
Ironworker	$ 27.10	13.38

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* LABO0271-001 06/01/2004

BUILDING CONSTRUCTION

	Rates	Fringes
Laborer		
GROUP 1	$ 22.00	12.55
GROUP 2	$ 22.25	12.55
GROUP 3	$ 23.00	12.55
GROUP 4	$ 23.00	12.55
GROUP 5	$ 22.75	12.55
GROUP 6	$ 24.00	12.55
GROUP 7	$ 23.00	12.55

LABORERS CLASSIFICATIONS

GROUP 1: Laborer, carpenter tender, mason tender, cement finisher tender, scaffold erector, & wrecking laborer

GROUP 2: Asphalt raker, adze person, pipe trench bracer, demolition burner, chain saw operator, fence & guard rail erector, setter of metal forms for roadways, mortar mixer, pipelayer, riprap & dry stonewall builder, highway stone spreader, pneumatic tool operator, wagon drill operator, tree trimmer, Barco-type jumping tamper, mechanical grinder operator

GROUP 3: Air track operator, hydraulic & similar self-powered drill

GROUP 4: Block paver, rammer & curb setter

GROUP 5: Pre-cast floor & roof plank erector

GROUP 6: Asbestos remover & toxic waste remover

GROUP 7: Powder person & blaster

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* LABO0673-001 06/01/2004

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes

Laborer	$ 23.20	12.55
GROUP 1	$ 21.20	12.55
GROUP 2	$ 21.45	12.55
GROUP 3	$ 22.20	12.55
GROUP 4	$ 14.70	12.55
GROUP 5	$ 23.20	12.55
COMPRESSED AIR	$ 40.18	12.55
Group 1	$ 38.18	12.90
GROUP 1	$ 38.18	12.55
Group 2	$ 27.70	12.90
GROUP 2	$ 27.70	12.55
Group 3	$ 40.18	12.90
GROUP 3	$ 40.18	12.55
FREE AIR	$ 32.25	12.55
Group 1	$ 30.25	12.90
GROUP 1	$ 30.25	12.55
Group 2	$ 27.70	12.90
GROUP 2	$ 27.70	12.55
Group 3	$ 32.25	12.90
GROUP 3	$ 32.25	12.55
OPEN AIR CAISSON, UNDERPINNING WORK AND BORING CREW	$ 26.85	12.55
Bottom Man	$ 26.85	12.90
Bottom person	$ 26.85	12.55
Laborer	$ 25.90	12.55
Top Man & Laborer	$ 25.90	12.90
Top person	$ 25.90	12.55
TEST BORING DRILLER		
Driller	$ 26.65	12.45
Laborer	$ 25.25	12.45
TEST BORING	$ 27.30	12.55
Driller	$ 27.30	12.55
Laborer	$ 25.90	12.55

LABORER CLASSIFICATIONS

GROUP 1: Laborer; Carpenter tender; Cement finisher tender; Wrecking laborer; Plant laborer; Driller in quarries

GROUP 2: Adzeperson; Asphalt raker; Barcotype jumping tamper; Chain saw operators; Concrete and power buggy operator; Concrete saw operator; Demolition burner; Fence and guard rail erector; Highway stone spreader; Laser beam operator; Mechanical grinder operator; Mason tender; Mortar mixer; Pneumatic tool operator; Riprap and dry stonewall builder; Scaffold erector; Setter of metal forms for roadways; Wagon drill operator; Wood chipper operator; Pipelayer; Pipe trench bracer

GROUP 3: Air track drill operator; Hydraulic and similar powered drills; Brick paver; Block paver; Rammer and curb setter; Powderperson and blaster

GROUP 4: Flagger & signaler

GROUP 5: Asbestos removal & toxic waste remover

LABORER - COMPRESSED AIR CLASSIFICATIONS

GROUP 1: Mucking machine operator, tunnel laborer, brake person, track person, miner, grout person, lock tender, gauge tender, motor person

GROUP 2: Change house attendant, powder watchperson, top person on iron

GROUP 3: Hazardous waste work within the "HOT" zone

LABORER - FREE AIR CLASSIFICATIONS

GROUP 1: Grout person - pumps, brake person, track person, form mover & stripper (wood & steel), shaft laborer, laborer topside, outside motorperson, miner, conveyor operator, miner welder, heading motorperson, erecting operator, mucking machine operator, nozzle person, rodperson, safety miner, shaft & tunnel, steel & rodperson, mole nipper, concrete worker, form erector (wood, steel and all accessories), cement finisher (this type of work only), top signal person, bottom person (when heading is 50' from shaft), burner, shield operator and TBM operator

GROUP 2: Change house attendant, powder watchperson

GROUP 3: Hazardous waste work within the "HOT" zone

MARB0001-001 03/01/2004

	Rates	Fringes
Marble Setter, Terrazzo Worker & Tile Setter	$ 27.40	15.05

MARB0001-005 03/01/2004

	Rates	Fringes
Marble, Tile & Terrazzo Finisher	$ 24.45	12.80

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* PAIN0011-005 06/01/2004

	Rates	Fringes
Painter		
Application of Epoxy; Tanks; Towers; Swing Stage; Boatswain Chair; Riding Steel; Bridges; All Tanks, Pipes and Vessels Inside; Hazardous Work of Similar Character; & Lead Abatement	$ 25.73	10.85
Brush, Roller, Drywall Finisher	$ 23.73	10.85
Spray, Sand/Water Blasting	$ 24.73	10.85

---

* PAIN0011-006 06/01/2004

	Rates	Fringes
Glazier	$ 27.48	11.00

FOOTNOTES:

SWING STAGE: $1.00 per hour additional.

PAID HOLIDAYS: Labor Day & Christmas Day.

PAIN0035-008 06/01/2001

	Rates	Fringes
Sign Painter	$ 17.43	6.47

PLAS0040-001 06/01/2001

BUILDING CONSTRUCTION

	Rates	Fringes
Cement Mason	$ 23.70	10.80
Plasterer	$ 24.15	10.85

FOOTNOTE: Cement Mason: Work on free swinging scaffolds under 3 planks width and which is 20 or more feet above ground and any offset structure: $.30 per hour additional.

PLAS0040-002 07/15/2001

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
Cement Mason	$ 22.10	8.05

PLUM0051-002 03/01/2004

	Rates	Fringes
Plumbers and Pipefitters	$ 30.16	15.01

ROOF0033-004 12/01/2002

	Rates	Fringes
Roofer	$ 24.50	10.65

SFRI0676-001 04/01/2004

	Rates	Fringes
Sprinkler Fitter	$ 31.00	11.90

SHEE0017-002 01/01/2003

	Rates	Fringes
Sheet Metal Worker	$ 28.99	15.22

TEAM0251-001 08/01/2003

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
Truck Driver		
GROUP 1	$ 20.51	10.9225+A+B
GROUP 2	$ 20.66	10.9225+A+B
GROUP 3	$ 20.71	10.9225+A+B
GROUP 4	$ 20.76	10.9225+A+B
GROUP 5	$ 20.86	10.9225+A+B
GROUP 6	$ 21.01	10.9225+A+B
GROUP 7	$ 21.26	10.9225+A+B
GROUP 8	$ 20.96	10.9225+A+B
GROUP 9	$ 21.21	10.9225+A+B
GROUP 10	$ 21.46	10.9225+A+B

FOOTNOTES:

A. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, plus Washington's Birthday, Columbus Day, Veteran's Day & V-J Day, providing the employee has worked at least one day in the calendar week in which the holiday falls.

B. Employee who has been on the payroll for 1 year or more but less than 5 years and has worked 150 Days during the last year of employment shall receive 1 week's paid vacation; 5 to 10 years - 2 weeks' paid vacation; 10 or more years - 3 week's paid vacation.

Tunnel rate for trucks actually going underground - add .40 per hour to rate according to equipment.

On equipment used to haul powder add .25 per hour above rate according to axle.

All drivers working on a defined hazard material job site shall be paid a premium of $2.00 per hour over applicable rate.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-up trucks, station wagons, & panel trucks

GROUP 2: Stake body on low beds

GROUP 3: Two-axle dump truck

GROUP 4: Three-axle dump truck

GROUP 5: Four- and five-axle equipment

GROUP 6: Low-bed or boom trailer

GROUP 8: Special earth-moving equipment, under 35 tons

GROUP 9: Special earth-moving equipment, 35 tons or over

GROUP 10: Tractor trailer

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 the 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, DC 20210

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

Wage and Hour Administrator

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

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

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

Administrative Review Board

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

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

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END OF GENERAL DECISION

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

a. The Contractor shall be required to--

(1) commence work under this contract within 15 calendar days after the date the Contractor receives the notice to proceed,

(2) prosecute the work diligently, and

(3) complete the entire work ready for use not later than March 30, 2005. The time stated for completion shall include final cleanup of the premises. See Article "Work Sequence" in Section 01110 SUMMARY OF WORK.

b. Time Extension for Planting: In the event the contract completion date, as established in Subparagraph "a" above, is thirty (30) days or more after the date established for planting in the Section 02921 TURF, the contract completion date for planting will be the last date of the next succeeding period specified as acceptable for planting.

c. Due to environmental restrictions, construction operations within the upland marsh areas at the project site will only be permitted from September 01, 2004 to March 30, 2005, and construction operations within water areas at the project site will only be permitted from September 01, 2004 to January 31, 2005. Upon receipt of notice to proceed, in lieu of construction operations at the site, the Contractor shall promptly place all orders, award subcontracts, process required submittals and details to ensure effective action when construction operations at the site are required to commence. Construction operations at the project shall commence on September 01, 2004.

d. Should the nesting of Federally protected birds at the work site postpone the commencement of work or stop work underway, an equitable adjustment will be made to the contract.

1.2 LIQUIDATED DAMAGES - CONSTRUCTION (SEPT 2000) FAR 52.211-12

(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 amounts specified below 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.

(c) Entire Work: For failure to complete the entire work until the work is completed or accepted, except for and planting, the sum of $550.00 for each calendar day of delay.

(d) Planting: For failure to complete the planting by the date established in Article 1.1.b above, the sum of $230.00 for each calendar day of delay beyond the established date until the planting is completed or accepted.

1.3 TIME EXTENSIONS (SEPT 2000) FAR 52.211-13

Time extensions for contract changes 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 related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

1.4 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference The drawings will be provided to the Contractor in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall-

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications, and to the contract drawings identified on the following index of drawings:

Sheet	Drawing

No.	File No.	Title
		SECTION 1135, COASTAL WETLAND ECOSYSTEM RESTORATION PROJECT ALLIN'S COVE BARRINGTON, RHODE ISLAND
2 C-1	acrc101.s02	Existing Site Plan, Survey Ties, Notes and Index

1.5 DESIGNATED BILLING OFFICE

Reference Contract Clause titled "PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS" located in SECTION 00700, CONTRACT CLAUSES. The "designated billing office" will be the Construction Area Engineer, Resident Engineer or project office where the Contracting Officer Representative for this contract is located. The Contractor will be notified of the exact location of this office at the project preconstruction conference specified in Section 01110 SUMMARY OF WORK.

1.6 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (OCT 1989) ER 415-1-15

a. This provision specifies the procedure for the 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.

(1) The weather experienced at the project 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.

(2) 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.

b. 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.

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

JAN	FEB	MAR	APR	MAY	JUN
(9)	(6)	(3)	(3)	(3)	(2)

JUL	AUG	SEP	OCT	NOV	DEC
(2)	(3)	(3)	(3)	(4)	(7)

c. 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 b, 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)."

1.7 BID GUARANTEE (SEP 1996) FAR 52.228-1

(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 twenty 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.

1.8 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty percent (20%) of the total amount of work to be performed under the contract. This percentage may be reduced by a 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.

1.9 WARRANTY OF CONSTRUCTION (MAR 1994) FAR 52.246-21 ALTERNATE I

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the

contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(k) Defects in design or manufacture of equipment specified by the Government on a 'brand name and model' basis, shall not be included in this warranty. In this event, the Contractor shall require any subcontractors, manufacturers, or suppliers thereof to execute their warranties, in writing, directly to the Government.

1.10 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(DEC 1991)

(a) The Contractor shall-

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may-

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et.seq.).

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

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) Sixty 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 a(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.

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DOCUMENTS 00 - INTRODUCTORY, BIDDING, AND CONTRACT REQUIREMENTS

DOCUMENT 00320

GEOTECHNICAL DATA

PART 1 GENERAL

1.1 SUMMARY
1.2 REFERENCES
1.3 EXPLORATIONS
1.4 LABORATORY DATA
1.5 SOIL CLASSIFICATION
1.6 INTERPRETATION
1.7 LABORATORY TESTS

-- End of Document Table of Contents --

DOCUMENT 00320

GEOTECHNICAL DATA

PART 1 GENERAL

1.1 SUMMARY

The surface conditions indicated on the contract drawings and in the specifications are the result of site surveys, borings, and laboratory tests. Locations at the site where subsurface investigations were performed are shown on the drawings. Copies of the logs of explorations and laboratory test results are located at the end of this Section.

1.2 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 422	(1963; R 1998) Particle-Size Analysis of Soils
ASTM D 854	(2000) Test Methods for Specific Gravity of Soil Sands by Water Pycnometer
ASTM D 2216	(1998)Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D 2487	(2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2488	(2000) Description and Identification of Soils (Visual-Manual Procedure)
ASTM D 2974	(2000) Test method for Moisture, Ash and Organic Matter of Peat and Organic Soil

1.3 EXPLORATIONS

Explorations were performed on the site in May 2001 at locations with "S" designations shown on the drawings. Explorations were by vibracore. Additional explorations were performed in September 2003 to determine the extent of the upland sand source area at locations with simple numerical designations. These explorations were performed using a 3" hand auger. In December 2003, an additional auger sample was collected in the northern portion of the new channel location (near Sta. 7+25). Summary tables for the 2001 and Sept. 2003 programs are shown in tables at the end of this section. No logs are available for the December 2003 sample. Samples from these explorations are not available for inspection.

1.4 LABORATORY DATA

Laboratory test data is also included for the 2001 and December 2003 samples. No laboratory testing was performed on samples collected in Sept. 2003. Only physical testing data is included in these specifications. The chemical analysis results are available for review at the US Army Corps of Engineers offices in Concord, MA. Arrangements to view the test data shall be made with Erik Matthews of the Corps of Engineers Geotechnical Engineering Section, telephone number (978) 318-8365. Two working days prior notice is required to review the reports.

1.5 SOIL CLASSIFICATION

The classification of the soil samples was done in accordance with ASTM D 2488 in the field and ASTM D 2487 in the laboratory.

1.6 INTERPRETATION

Subsurface investigation data are provided for information purposes only and for the convenience of the Contractor. The data shown on the boring logs and laboratory data is for the specific locations indicated only and no assurance is given that these conditions are representative of conditions between borings or areas adjacent thereto. The responsibility lies with the Contractor to interpret subsurface conditions that may affect his work.

1.7 LABORATORY TESTS

Laboratory tests were generally performed in accordance with the following test methods:

a. Moisture Content: ASTM D 2216.
b. Organic Content: ASTM D 2974.
c. Particle-Size Analysis: ASTM D 422.
d. Specific Gravity: ASTM D 854.

Note: Not all samples were tested in the laboratory using all the methods described above.

-- End of Document --

ALLIN'S COVE MARSH RESTORATION
2001 Explorations - SOIL SAMPLE PHYSICAL TEST RESULTS

Sample Number	Depth Range (ft)	Grain Size				Atterberg Limits			Water Content	Total	USCS
		% Gravel	% Sand	% Silt	% Clay	Liquid Limit	Plastic Limit	Plasticity Index	%	% Solids	Classification
S-1	0-1	0	39	51	10	42	28	14	49	67	ML
	1-2	1	36	46	17	53	27	26	45	69	MH
	2-3	3	51	32	14	39	22	17	44	69	ML
	0-4.1	1	38	41	20	---	NA	---	55	65	ML
S-2	0-1	3	79	11	7	---	NP	---	31	76	SM
	1-2	0	14	46	40	108	48	60	96	51	MH
	2-3	0	14	51	35	89	36	53	84	54	MH
	0-5	3	33	43	21	---	NA	---	58	63	MH
S-3	0-1	3	29	35	33	87	46	41	108	48	MH
	1-2	0	2	44	54	119	49	70	116	46	MH
	0-2	0	10	42	48	---	NA	---	110	48	MH
S-4	0-8.8	1	89	6	4	---	NP	---	18	84	SP-SM

NOTES:
All Samples were collected on 29 May 2001 by Battelle Operations, Duxbury.
All Samples were tested in June 2001 by Applied Marine Sciences, Inc.
Sample ranges in italics were composite samples of the entire depth range.

Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663

TOP

Description:

0-1' top inch organic matter
sand, roots,
some clay

1'-2' clay
silt
sand
shell hash interval ~ 1' 10"

.3' sandy
clay

3'-4' silty
clay (uniform gray)

4' 1" - CONTACT BETWEEN FILL & NATIVE

4'-5' vegetation
returns;
roots

5'-6' strong H_2S smell
brown-to-grey clayey silt

6½'

CORE INFO:

Location: S-1
Allin's Cove

Sampling Site:

Core ID: S-1 (TOP)

Sampler Type: Vibra Core

Date/Time Collected: ① ~~5/30~~ 5/29/01 11:00

Of Core Secs:

Length of Core(s): ② ~~13.5 ft~~
surface to mud 0-6.5ft

Penetration: 14'

Recovery: 12' 11¾"

SAMPLE INFO:

Date Evaluated/Tech:

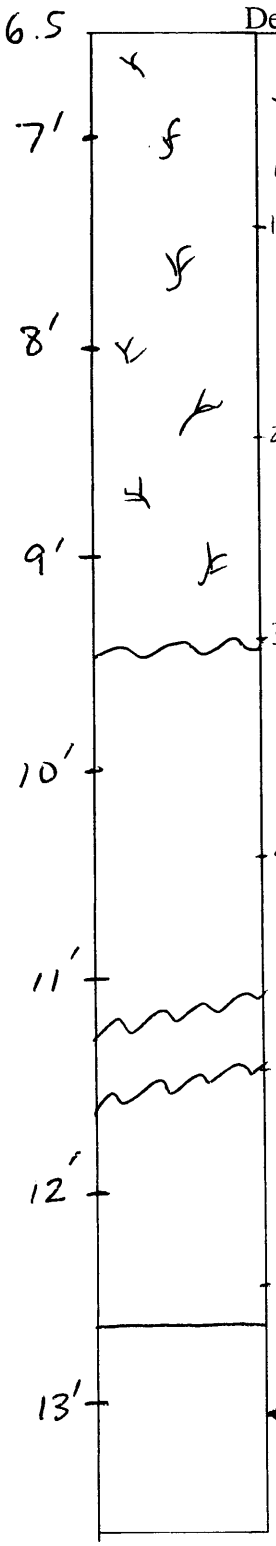
Sample ID/Length:
S-1: 0-1', 1-2', 2-3' - GS/TVS/Atterberg
S-1: 0-4.1' - bulk chem
- GS/TOC
- ARCHIVE

Final Deposition:

Page 1 of 2

Use or disclosure of data appearing on this sheet is subject to the restriction set forth on the title page of this proposal.

Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663



Description:

brown-to-grey
clayey silt
abundand root/leaf debris
H_2S

medium gray sand
well sorted

transitional
gray clay
wood fragment(s)
shell fragment(s)

END OF CORE AT 12' 11 3/4"

CORE INFO:

Location: S-1
ALLINS COVE

Sampling Site:

Core ID: S-1 (BOTTOM)

Sampler Type: Vibra Core

Date/Time Collected:

Of Core Secs:

Length of Core(s):

Penetration:

Recovery:

SAMPLE INFO:

Date Evaluated/Tech:

Sample ID/Length:

Final Deposition:

BATTELLE
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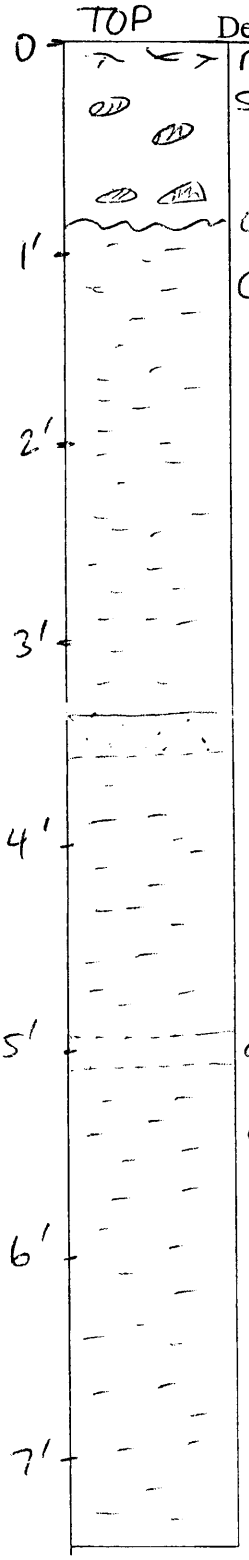
Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663



Description:

roots
sand - gray, shell frags
medium-to-coarse
0.8'
clay - gray, uniform texture
sandy interbed (3.5-3.65')
clay - gray, uniform texture
organic frag/brownish clay
clay - gray, uniform texture
7.3' END OF SEGMENT

CORE INFO:

Location: S-2
ALLIN'S COVE

Sampling Site:

Core ID: S-2 (TUP)

Sampler Type:

Date/Time Collected:

Of Core Secs: 2

Length of Core(s): (1) 7.3'
(2) 7.4'

Penetration:

Recovery:

SAMPLE INFO:

Date Evaluated/Tech:

Sample ID/Length:

52 ~~53~~ 0'-1', 1'-2', 2'-3' GS/TVS/Atlebergs

52 ~~53~~ 0-5' - bulk chem

Final Deposition: - GS/TOC
- Archive

BATTELLE
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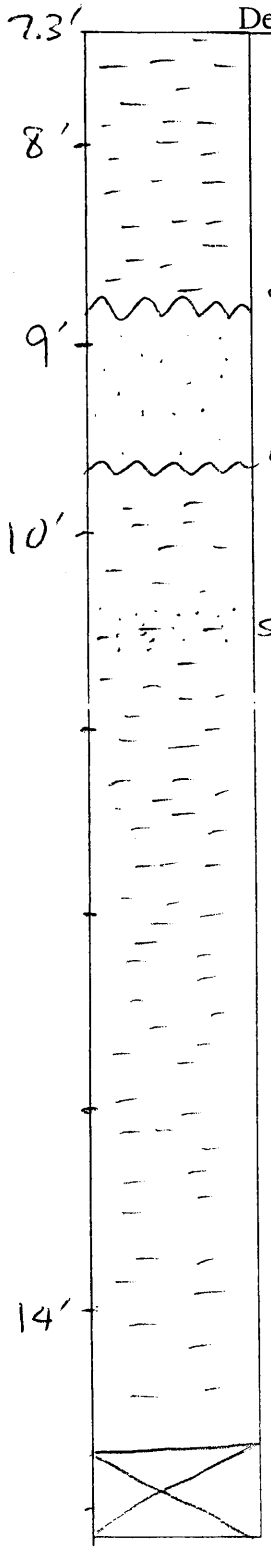
Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663



Description:

clay - gray, uniform texture

8.9' transitional

silty sand - gray, medium

9.6'

clay - gray, uniform texture

sandy - interbed (10.3 - 10.5')

clay - gray, uniform texture

14.7' - BOTTOM OF CORE

CORE INFO:

Location: S-2
ALLIN'S COVE

Sampling Site:

Core ID: S-2 (BOTTOM)

Sampler Type:

Date/Time Collected:

Of Core Secs: 2

Length of Core(s): (1) 7.3'
(2) 7.4'

Penetration:

Recovery:

SAMPLE INFO:

Date Evaluated/Tech:

Sample ID/Length:

Final Deposition:

BATTELLE
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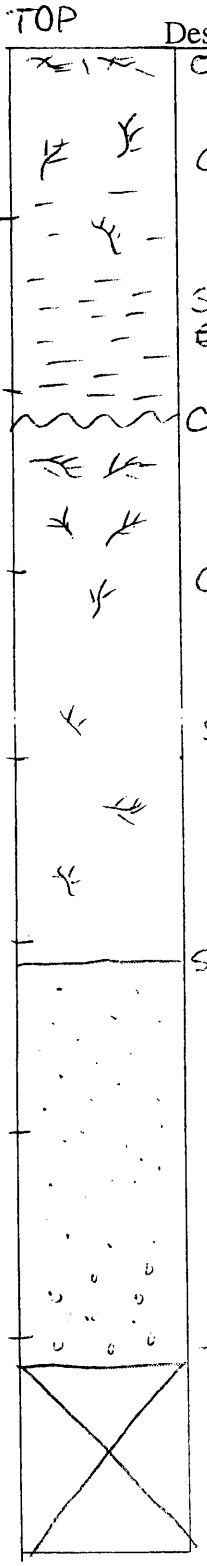
Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663



	Description:
0' TOP	organic soil (0.0-0.2')
1'	clayey silt - grey, abundant plant roots near top
2'	silty clay ~~clayey silt~~ - grey (uniform text.)
	CONTACT BETWEEN FILL AND NATIVE SEDIMENTS
3'	clayey-silt - brown-to-grey, abundant plant fragments
4'	strong H_2S smell
5'	5.1'
	sand - medium, grey, moderately sorted
6'	increasing grain size w/ depth, transitional to course sand around 6.8'
7'	7.1' BOTTOM OF SEGMENT 1

CORE INFO:

Location: S-3 Allin's Cove

Sampling Site:

Core ID: S-3 (TOP)

Sampler Type:

Date/Time Collected:

Of Core Secs: 2

Length of Core(s): (1) 7.1' (2) 6.7'

Penetration:

Recovery:

SAMPLE INFO:

Date Evaluated/Tech:

Sample ID/Length:
S3 0'-1', 1'-2' GS/TVS/Atterberg
S3 0'-2' - Bulk Chem.
- GS/TOC
- Archive
- GS/TOC QC

Final Deposition:

Page 1 of 2

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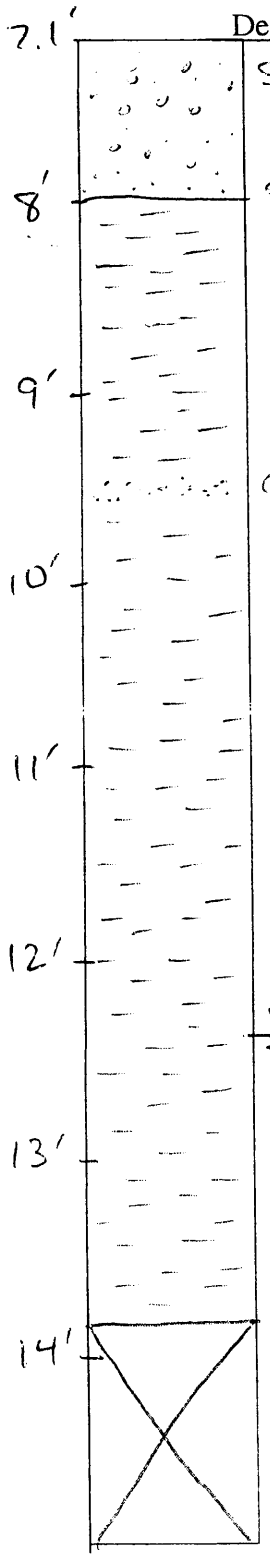
Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663



Description:

sand - coarse, gray, moderately sorted

8.0'

clay - gray, uniform texture very consistent

9.6' - sand stringer

12.4'

13.8' END OF CORE

CORE INFO:

Location: S-3 ALLIN'S COVE

Sampling Site:

Core ID: S-3 (BOTTOM)

Sampler Type:

Date/Time Collected:

Of Core Secs:

Length of Core(s):

Penetration:

Recovery:

SAMPLE INFO:

Date Evaluated/Tech:

Sample ID/Length:

Final Deposition:

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Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663

TOP

Description:

~4" plant debris/sand

brown, medium sand,

moderately sorted, rounded

shell fragments throughout

1'

2'

3'

4'

4.9'

5'

dk. brown/black silty sand w/ shell frags.

6'

decrease in black (organic) toward base

END OF CORE SEGMENT @ 6.64'

7'

CORE INFO:

Location: _____

Sampling Site: _____

Core ID: S-4 (TOP)

Sampler Type: _____

Date/Time Collected: _____

Of Core Secs: _____

Length of Core(s): _____

Penetration: _____

Recovery: _____

SAMPLE INFO:

Date Evaluated/Tech: _____

Sample ID/Length:

S-4 0'-8.8' composite for GS/TVS/Atterberg/GS/TOC/Bulk Chemistry - Duplicate QC

Final Deposition: _____

BATTELLE

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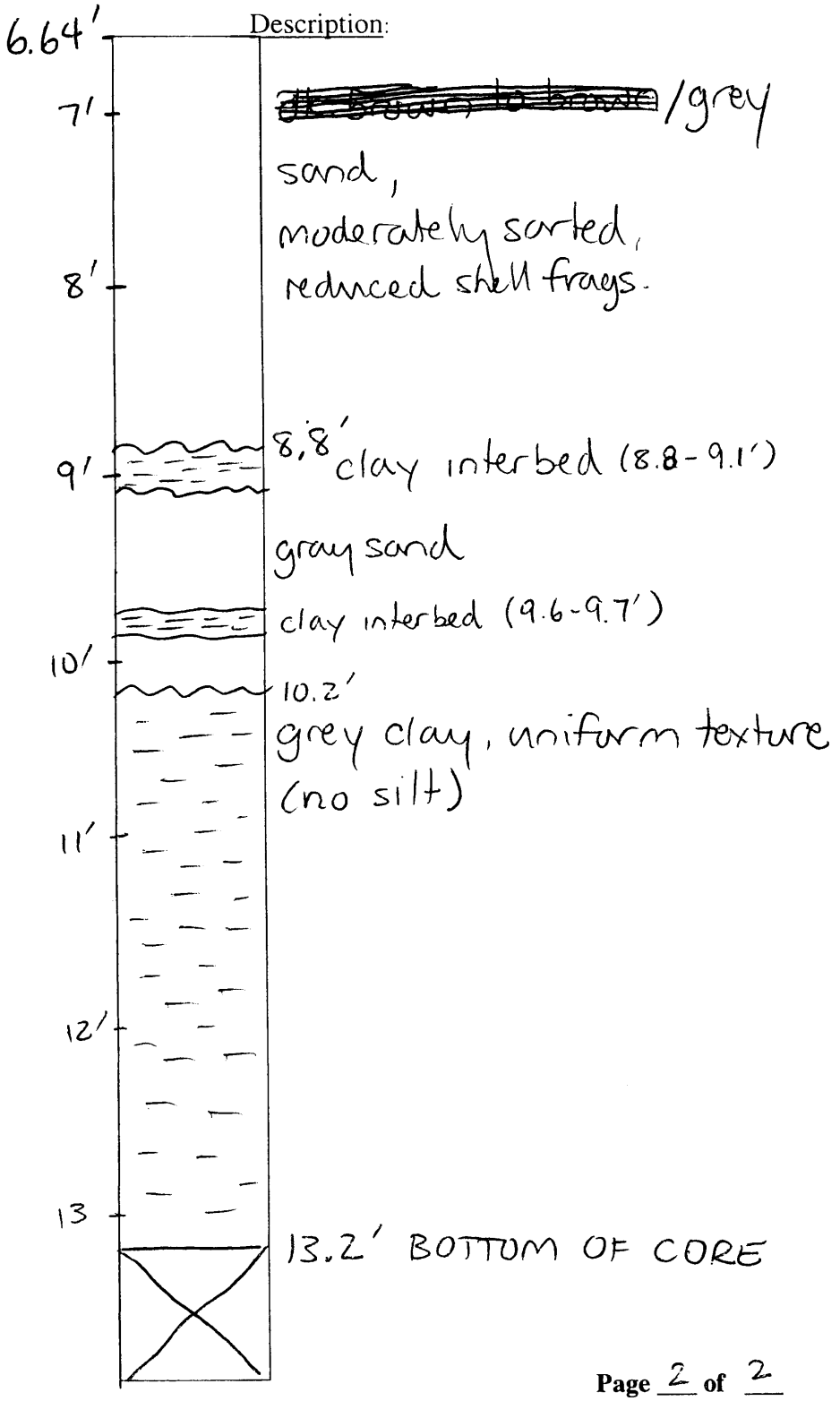
Sediment Core Log
Project Name: USACE NAE – Allin's Cove
Project # G339663



CORE INFO:

Location: S-4
ALLIN'S COVE

Sampling Site:

Core ID: S-4 (BOTTOM)

Sampler Type:

Date/Time Collected:

Of Core Secs: 2

Length of Core(s): TOP - 6.64'
BOTTOM -

Penetration:

Recovery:

SAMPLE INFO:

Date Evaluated/Tech:

Sample ID/Length:

Final Deposition:

BATTELLE
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Coring Field Log
USACE NAE Project: Allin's Cove
Project # G339663-0001

ALLIN'S COVE

Sample ID:	Sampled by: RR
Site: S1	Date: 5-29-01 Time: 1100
Coordinates Latitude: 240609.3 Northing Longitude: 369749.4 Easting	Location Method ✓ dGPS ___ Loran ___ Depth ___ Ranges/Bearing
Sea State: NA	Sampler Type: ✓ Vibra Core ___ Gravity Corer ___ Push Tube
Weather: Partly Cloudy	___ Water Sampler ___ Other (specify)
Sounding: NA	Reduced Sounding (MLW from chart):
No. of Attempts: 1	Penetration Depth: 16' Recovery Depth: 12' 11 3/4"
Material Description: Sand/Mud	Notes: Dry Area difficult Penetration

ALLIN'S COVE

Sample ID: ~~S2~~ WL Ver 5-29-01	Sampled by: RR
Site: S2	Date: 5-29-01 Time: 1245
Coordinates Latitude: 240667.7 N Longitude: 369871.2 E	Location Method ✓ dGPS ___ Loran ___ Depth ___ Ranges/Bearing
Sea State: NA	Sampler Type: ✓ Vibra Core ___ Gravity Corer ___ Push Tube
Weather: Partly Sunny	___ Water Sampler ___ Other (specify)
Sounding: NA	Reduced Sounding (MLW from chart):
No. of Attempts: 1	Penetration Depth: 16 Feet Recovery Depth: 14' 6.5
Material Description: Sand / Fine Sand	Notes: Closer to Water

Coring Field Log
USACE NAE Project: Allin's Cove
Project # G339663-0001

ALLIN'S COVE

Sample ID:	Sampled by: RR
Site: S3	Date: 5-29-01 Time: 1515
Coordinates Latitude: 240819.8 N Longitude: 370057.4 E	Location Method ✓ dGPS ___ Loran ___ Depth ___ Ranges/Bearing
Sea State: NA	Sampler Type: ✓ Vibra Core ___ Gravity Corer ___ Push Tube
Weather: Overcast	___ Water Sampler ___ Other (specify)
Sounding:	Reduced Sounding (MLW from chart):
No. of Attempts: 1	Penetration Depth: 16' Recovery Depth: 14' 7.5"
Material Description: Fragmites mat, Sand, Clay	Notes: deep in Fragmites Forest; slow, difficult penetration through Root mat; U-Bolt snapped on Vibracore

ALLIN'S COVE

Sample ID:	Sampled by: RR
Site: S4	Date: 5-29-01 Time: 1730
Coordinates Latitude: 240748.1 N Longitude: 369533.1 E	Location Method ✓ dGPS ___ Loran ___ Depth ___ Ranges/Bearing
Sea State:	Sampler Type: ✓ Vibra Core ___ Gravity Corer ___ Push Tube
Weather: Windy / overcast	___ Water Sampler ___ Other (specify)
Sounding:	Reduced Sounding (MLW from chart):
No. of Attempts: 1	Penetration Depth: 16 Ft. Recovery Depth: 13' 2"
Material Description: Sand / mud	Notes: difficult penetration through Sand difficult to Extract core from Sand

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Project Number: G339664
Project Title: USACE NAE
Allins Cove
Client: Battelle-Duxbury Operations

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Organic Carbon (EPA SW9060)

Battelle Sample ID	AMS Sample ID	TOC-Replicate 1 (%)	TOC-Replicate 2 (%)	MDL (%)	Date Analyzed
S-1 0-4.1'	9198	1.29	1.29	0.01	6/13/01
S-2 0-5'	9202	1.49	1.53	0.01	6/13/01
S-3 0-2'	9205	3.22	3.21	0.01	6/13/01
S-4 0-8.8'	9205	0.25	0.27	0.01	6/13/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-1 0-1'
AMS Sample ID: 9195

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
69.12	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
2.53	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
42	28	14	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KSD

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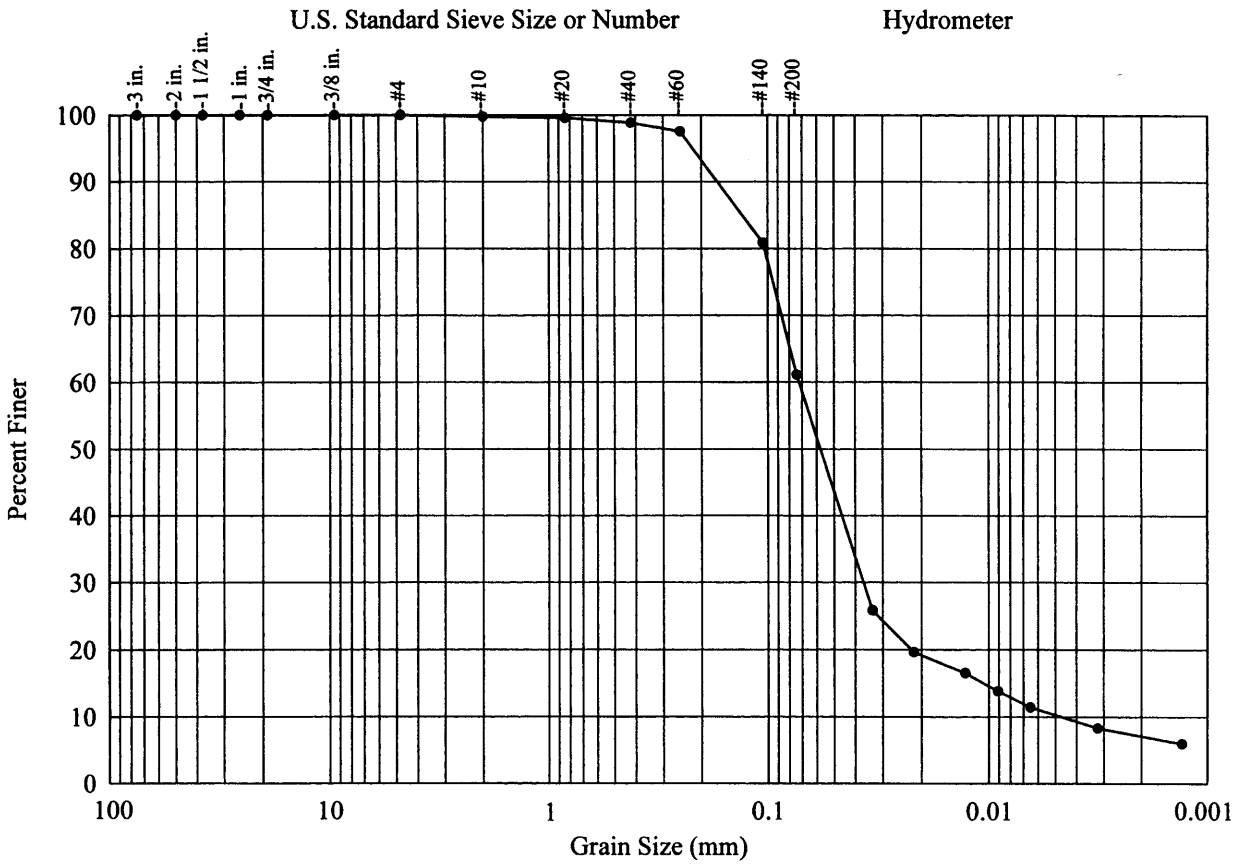

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble >3"	% Gravel <3" - #4	% Sand Coarse #10	% Sand Medium #20-#40	% Sand Fine #60-#200	% Fines Silt 0.074-0.005 mm	% Fines Clay <0.005 mm
0.00	0.00	0.15	0.97	37.74	51.14	10.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
49	67	42	28								

Material Description	USCS
Dark Yellowish Brown Sandy Silt, Wet, Plant Detritus Present (roots, twigs)	ML

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-1 0-1'
	AMS ID:	9195
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-1 1-2'
AMS Sample ID: 9196

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
64.29	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
2.96	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
53	27	26	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

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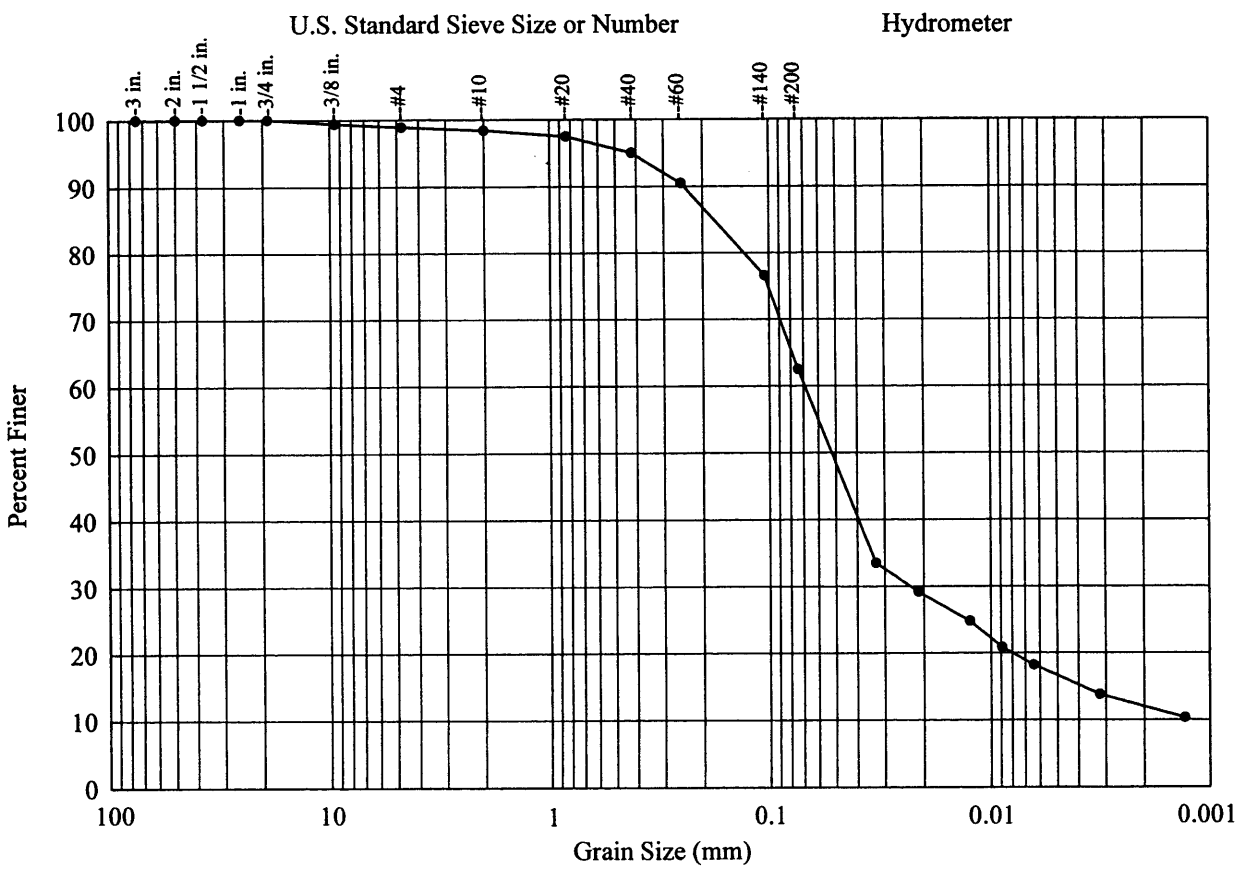

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble >3"	% Gravel <3" - #4	% Sand Coarse #10	% Sand Medium #20-#40	% Sand Fine #60-#200	% Fines Silt 0.074-0.005 mm	% Fines Clay <0.005 mm
0.00	1.08	0.57	3.40	32.45	45.50	17.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
45	69	53	27								

Material Description	USCS
Darkish Olive Gray Sandy Elastic Silt, Wet, Plant Detritus Present (roots, twigs)	MH

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-1 1-2'
	AMS ID:	9196
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-1 2-3'
AMS Sample ID: 9197

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
68.61	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
2.14	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
39	22	17	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

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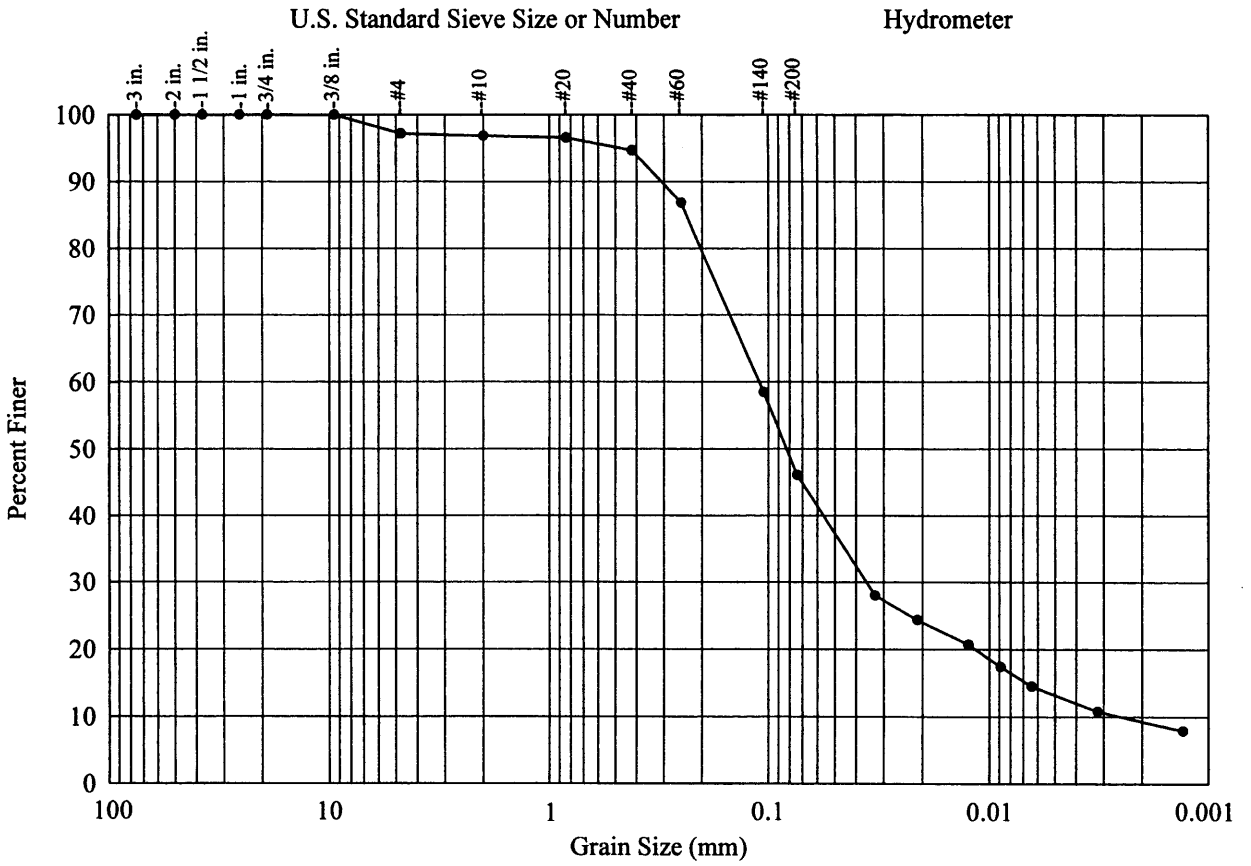

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble >3"	% Gravel <3" - #4	% Sand Coarse #10	% Sand Medium #20-#40	% Sand Fine #60-#200	% Fines Silt 0.074-0.005 mm	% Fines Clay <0.005 mm
0.00	2.82	0.29	2.16	48.63	32.10	14.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
44	69	39	22								

Material Description	USCS
Dark Olive Gray Sandy Silt, Wet, Plant Detritus Present (roots, twigs)	ML

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-1 2-3'
	AMS ID:	9197
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Samp ID: S-1 0-4.1'
AMS Samp ID: 9198

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Organic Carbon (EPA SW9060)

Result	Duplicate	RPD	MDL	Unit	Date Analyzed
1.29	1.29	0.00	0.01	%	6/13/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

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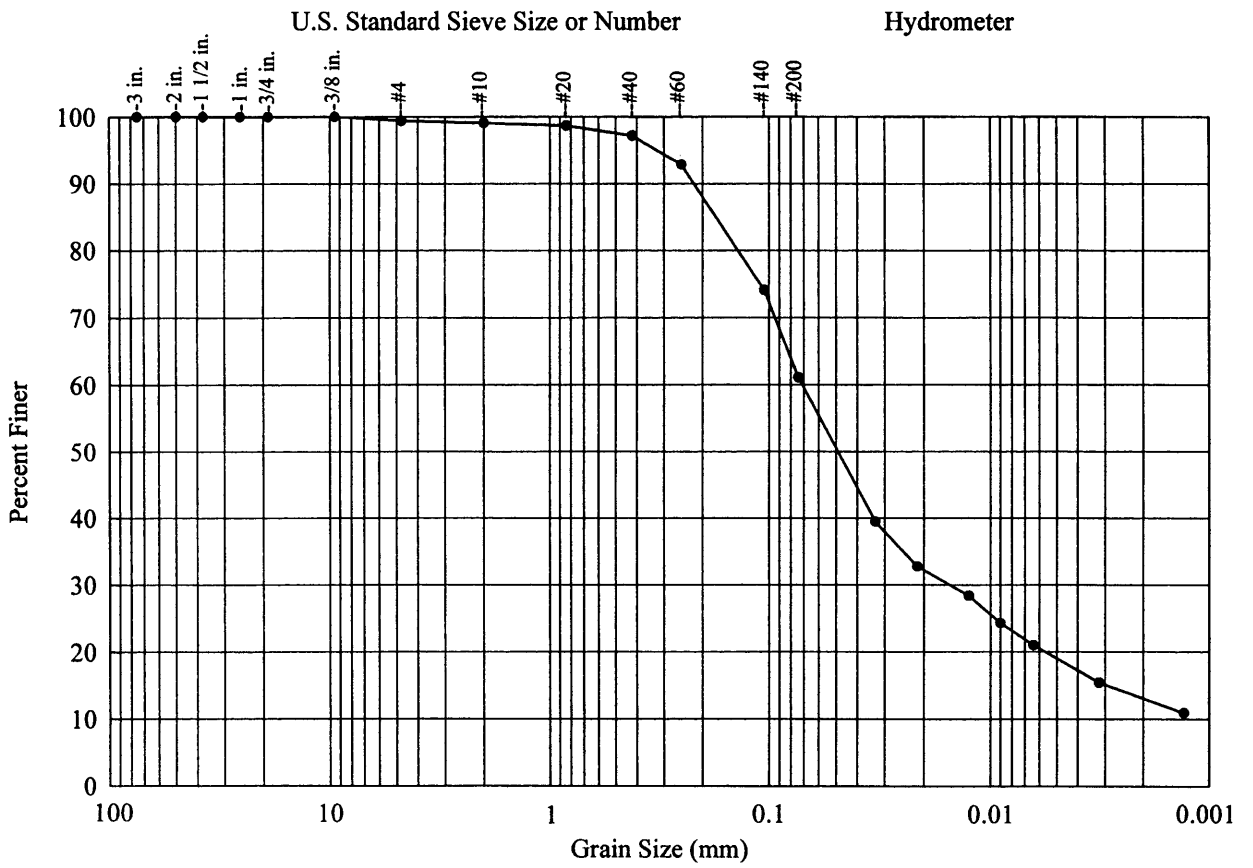

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble	% Gravel	% Sand			% Fines	
		Coarse	Medium	Fine	Silt	Clay
>3"	<3" - #4	#10	#20-#40	#60-#200	0.074-0.005 mm	<0.005 mm
0.00	0.63	0.22	1.96	36.13	41.56	19.50

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
55	65										

Material Description	USCS
Dark Olive Gray Sandy Silt, Wet, Plant Detritus Present (roots, twigs)	ML

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-1 0-4.1'
	AMS ID:	9198
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-2 0-1'
AMS Sample ID: 9199

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
76.32	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
1.53	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
-	NP	-	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

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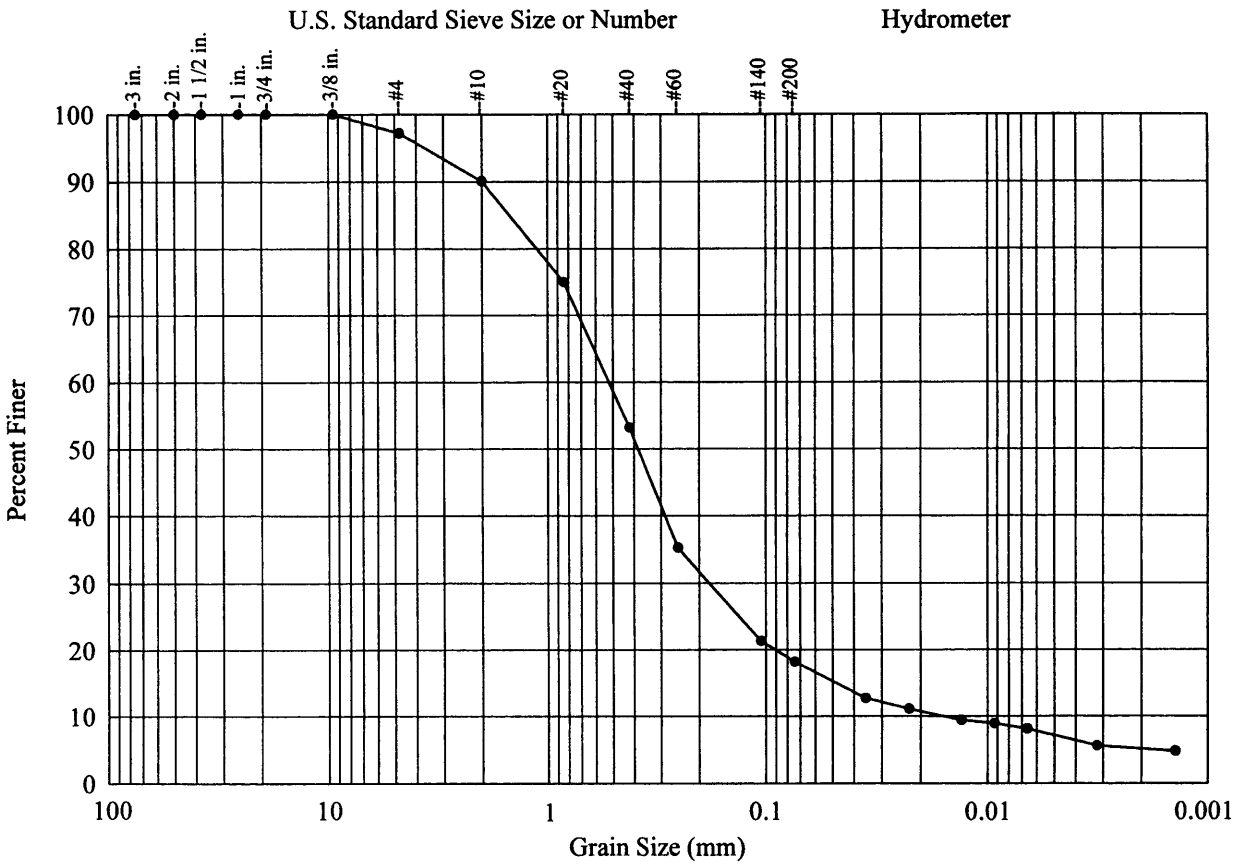

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble	% Gravel	% Sand			% Fines	
		Coarse	Medium	Fine	Silt	Clay
>3"	<3" - #4	#10	#20-#40	#60-#200	0.074-0.005 mm	<0.005 mm
0.00	2.80	7.09	36.89	35.04	11.17	7.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
31	76		NP	1.5	0.51	0.49	0.18	0.045	0.018	3.53	28.33

Material Description	USCS
Olive to Pinkish Gray Silty Sand, Wet, Plant Detritus Present (roots, twigs)	SM

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-2 0-1'
	AMS ID:	9199
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-2 1-2'
AMS Sample ID: 9200

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
51.68	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
6.06	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
108	48	60	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

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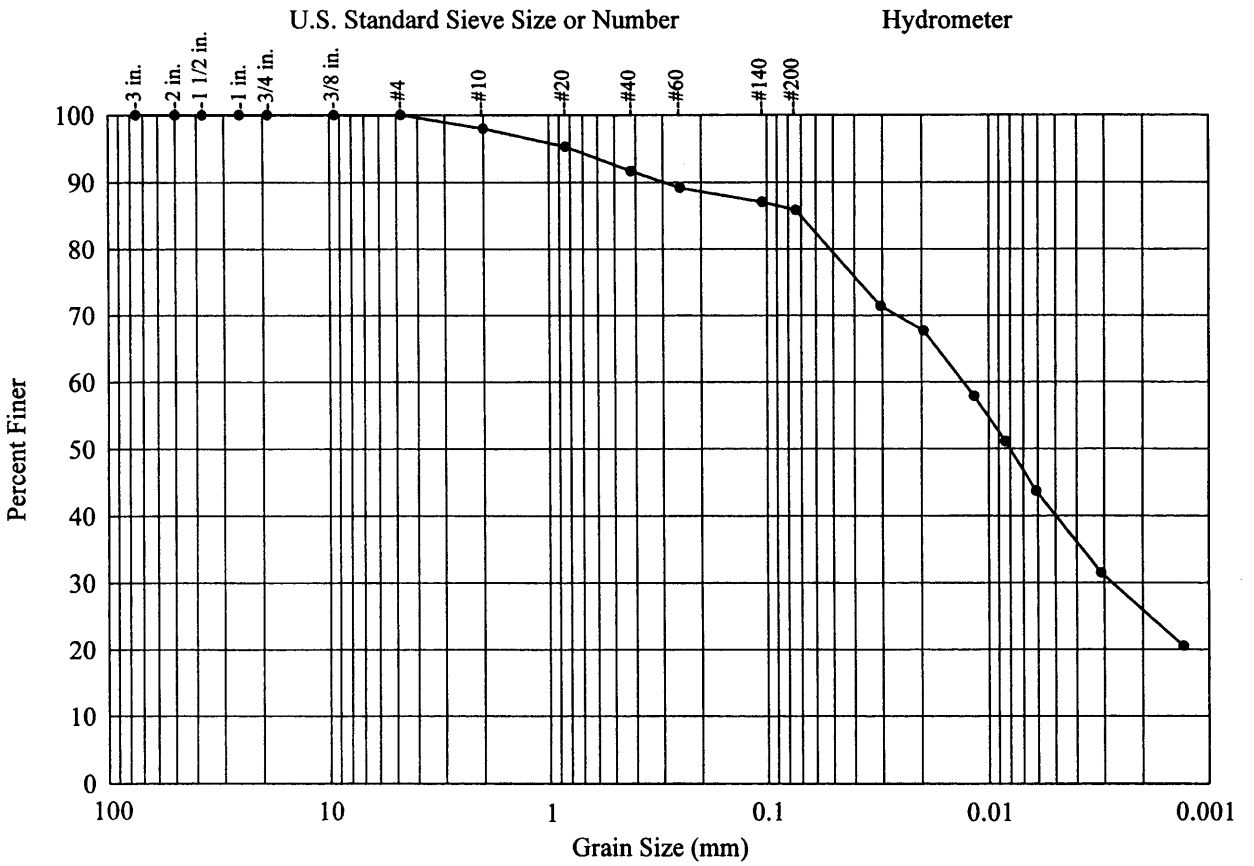

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble	% Gravel	% Sand			% Fines	
		Coarse	Medium	Fine	Silt	Clay
>3"	<3" - #4	#10	#20-#40	#60-#200	0.074-0.005 mm	<0.005 mm
0.00	0.00	2.00	6.30	5.75	45.95	40.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
96	51	108	48								

Material Description	USCS
Olive Black Elastic Silt, Wet, Plant Detritus Present (roots, twigs)	MH

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-2 1-2'
	AMS ID:	9200
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-2 2-3'
AMS Sample ID: 9201

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
53.95	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
4.77	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
89	36	53	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KSD

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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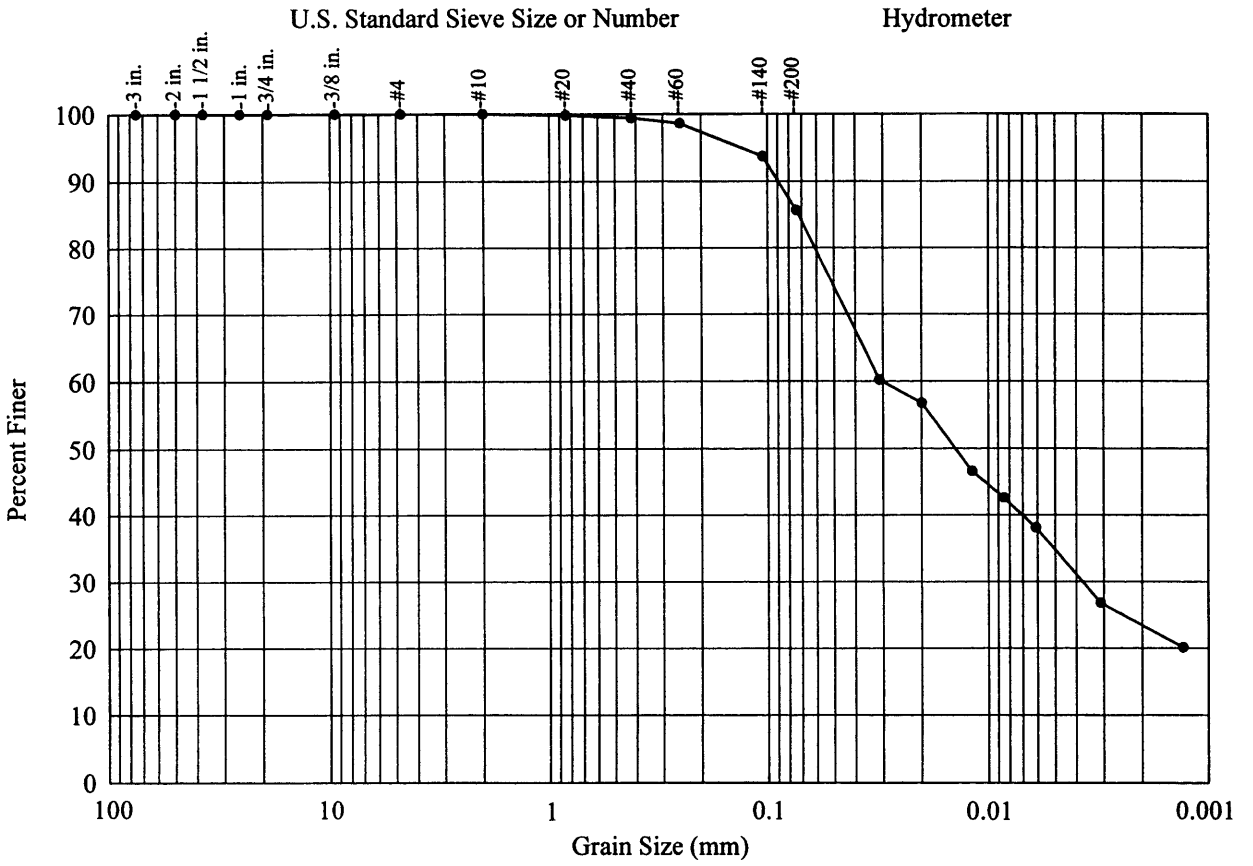

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble	% Gravel	% Sand			% Fines	
		Coarse	Medium	Fine	Silt	Clay
>3"	<3" - #4	#10	#20-#40	#60-#200	0.074-0.005 mm	<0.005 mm
0.00	0.00	0.02	0.55	13.77	50.66	35.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
84	54	89	36								

Material Description	USCS
Olive Gray Elastic Silt, Wet, H_2S Odor	MH

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-2 2-3'
	AMS ID:	9201
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Samp ID: S-2 0-5'
AMS Samp ID: 9202

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Organic Carbon (EPA SW9060)

Result	Duplicate	RPD	MDL	Unit	Date Analyzed
1.49	1.53	2.65	0.01	%	6/13/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KSD

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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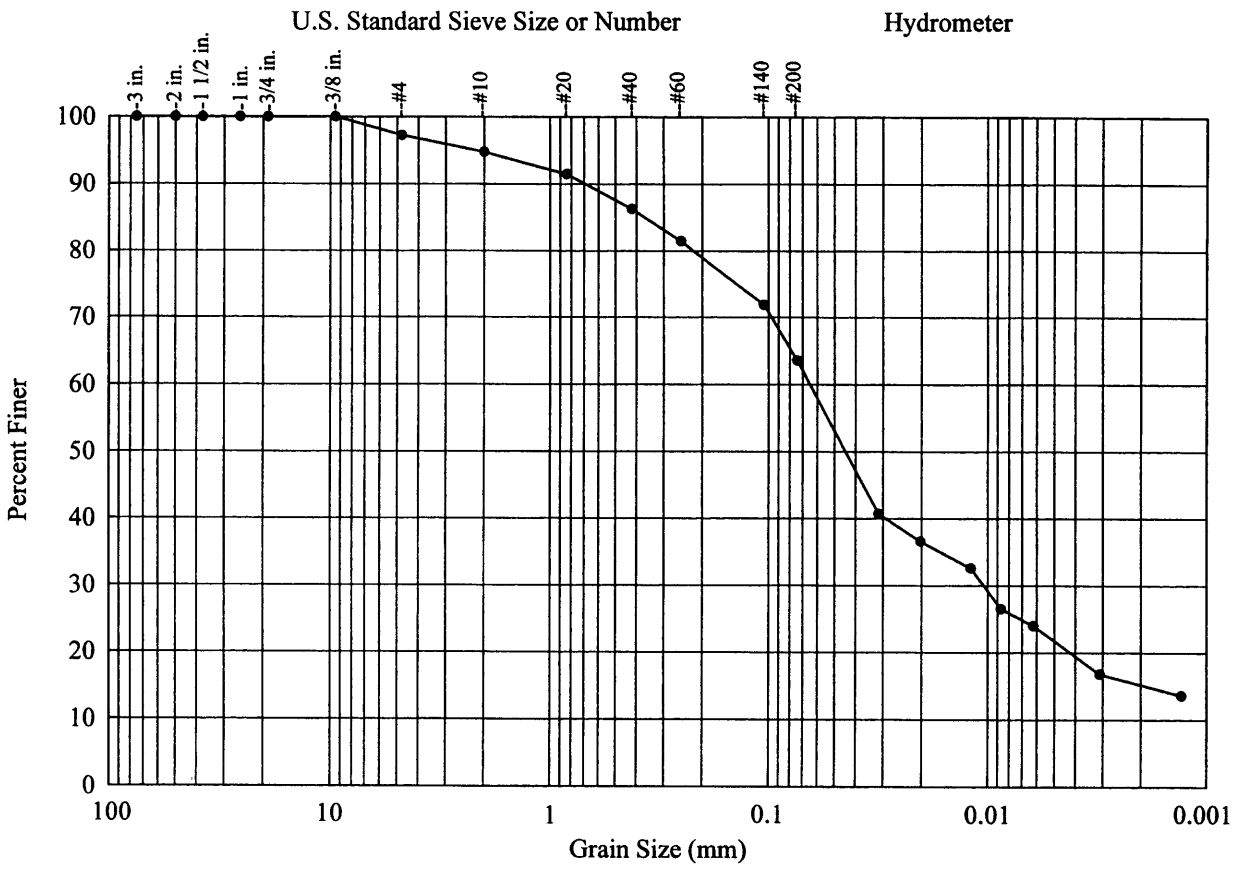

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble	% Gravel	% Sand			% Fines	
		Coarse	Medium	Fine	Silt	Clay
>3"	<3" - #4	#10	#20-#40	#60-#200	0.074-0.005 mm	<0.005 mm
0.00	2.74	2.46	8.50	22.72	42.57	21.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
58	63	89	35								

Material Description	USCS
Dark Olive Gray Sandy Elastic Silt, Wet, Plant Detritus Present (roots, twigs), H_2S Odor	MH

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-2 0-5'
	AMS ID:	9202
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-3 0-1'
AMS Sample ID: 9203

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
48.37	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
10.48	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
87	46	41	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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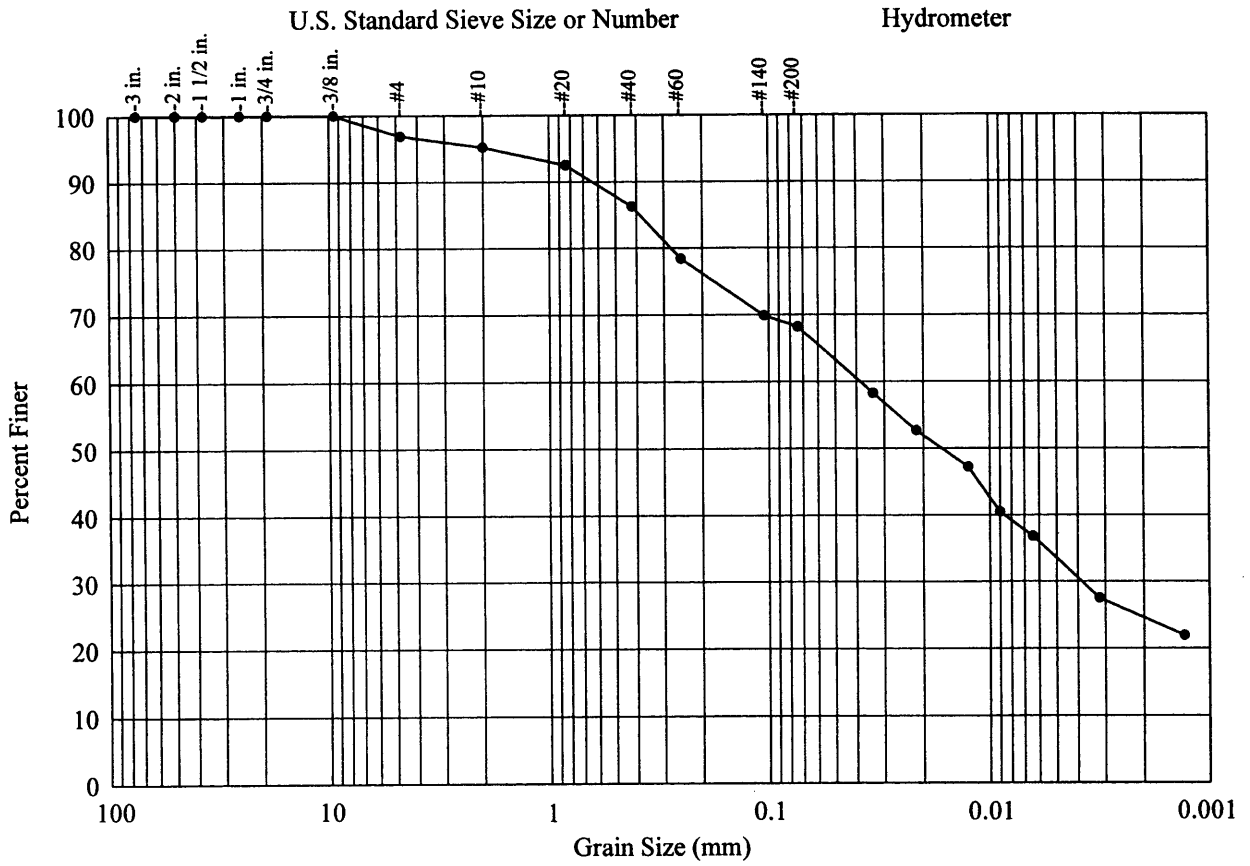

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble >3"	% Gravel <3" - #4	% Sand Coarse #10	% Sand Medium #20-#40	% Sand Fine #60-#200	% Fines Silt 0.074-0.005 mm	% Fines Clay <0.005 mm
0.00	3.09	1.71	8.92	18.06	35.21	33.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
108	48	87	46								

Material Description	USCS
Olive Gray Elastic Silt with Fine-Grained Sand, Saturated, Plant Detritus Present (roots, twigs)	MH

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-3 0-1'
	AMS ID:	9203
	Date:	6/18/01

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-3 1-2'
AMS Sample ID: 9204

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
46.18	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
7.06	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
119	49	70	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KSD

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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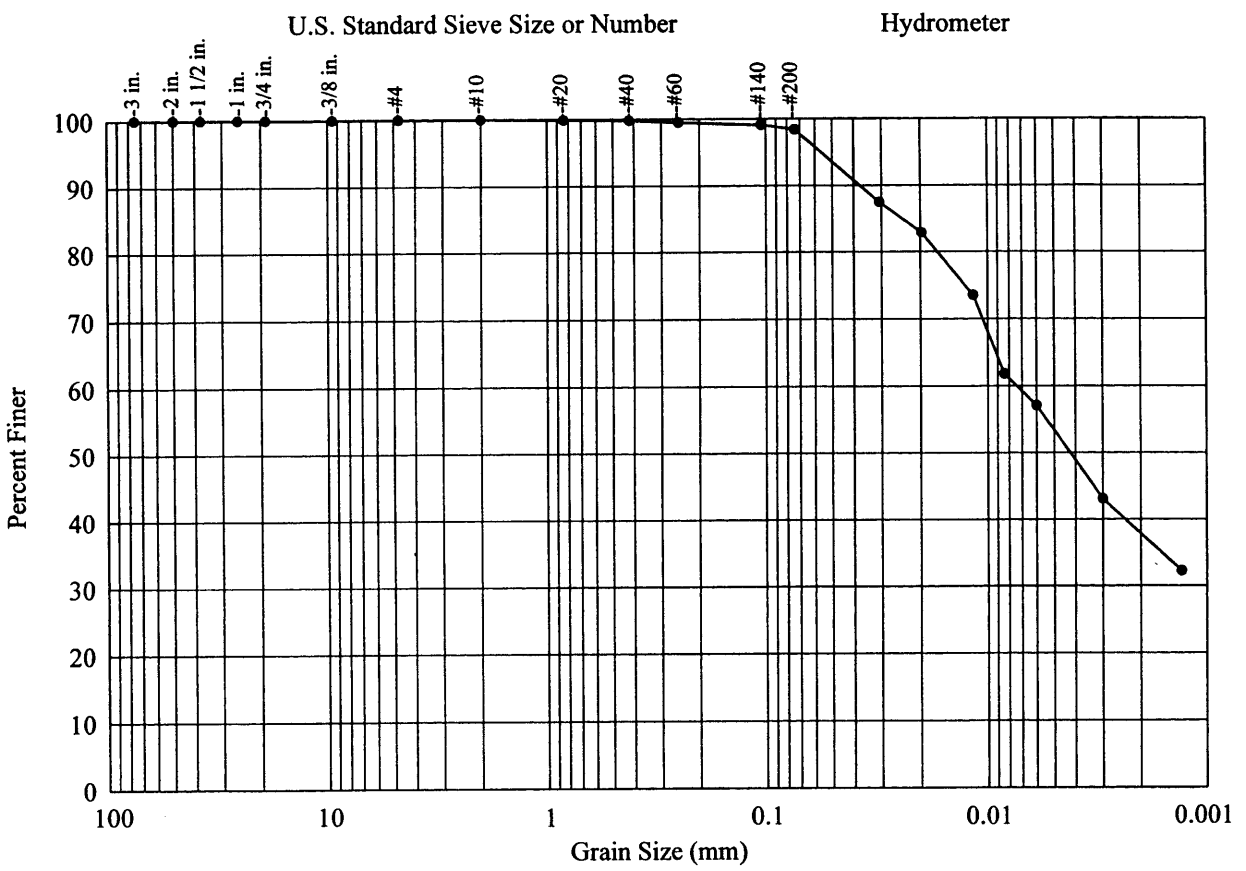

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble >3"	% Gravel <3" - #4	% Sand Coarse #10	% Sand Medium #20-#40	% Sand Fine #60-#200	% Fines Silt 0.074-0.005 mm	% Fines Clay <0.005 mm
0.00	0.00	0.00	0.24	1.33	44.43	54.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
116	46	119	49								

Material Description	USCS
Olive Gray Elastic Silt, Saturated, Plant Detritus Present (roots, twigs), H_2S Odor	MH

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-3 1-2'
	AMS ID:	9204
	Date:	6/18/01

Applied Marine Sciences, Inc.

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Samp ID: S-3 0-2'
AMS Samp ID: 9205

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Organic Carbon (EPA SW9060)

Result	Duplicate	RPD	MDL	Unit	Date Analyzed
3.22	3.21	0.31	0.01	%	6/13/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

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AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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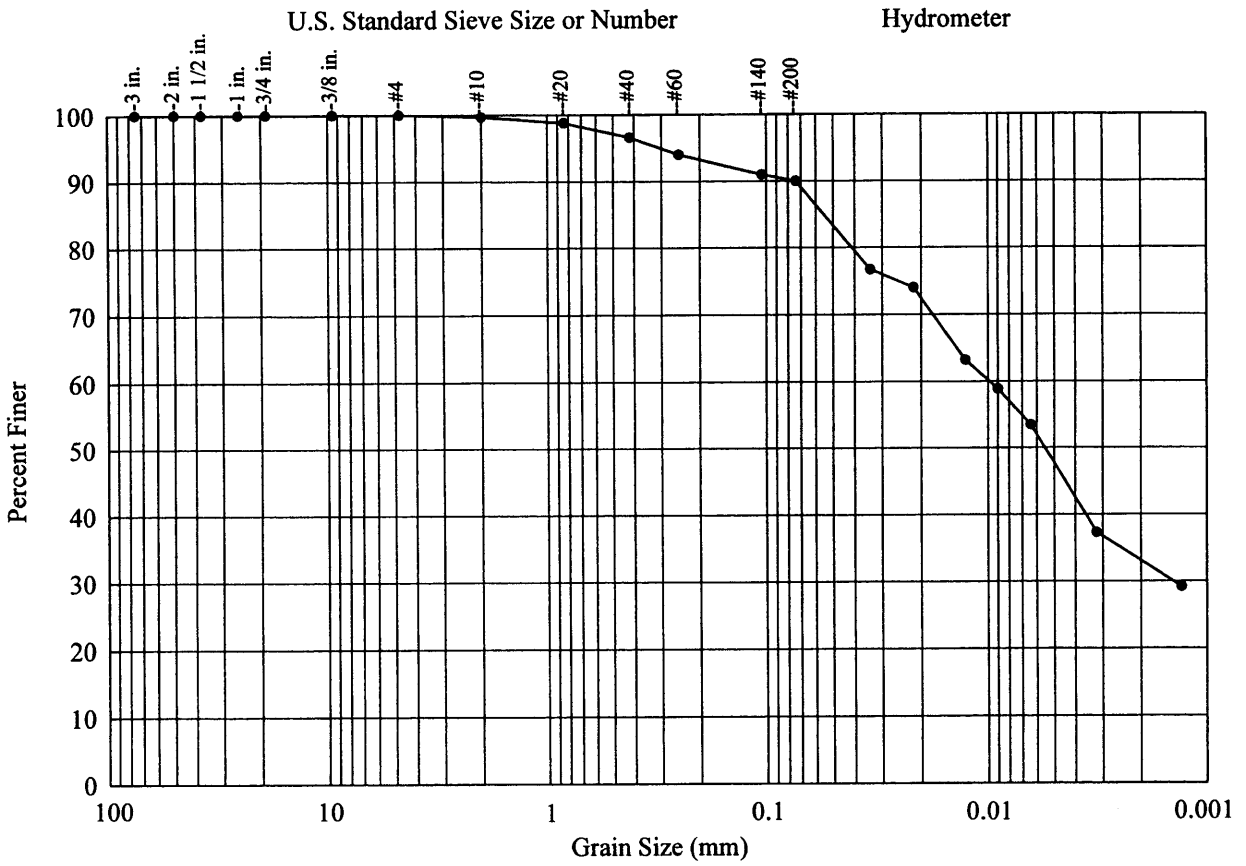

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble >3"	% Gravel <3" - #4	% Sand Coarse #10	% Sand Medium #20-#40	% Sand Fine #60-#200	% Fines Silt 0.074-0.005 mm	% Fines Clay <0.005 mm
0.00	0.00	0.33	3.04	6.61	42.02	48.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
110	48										

Material Description	USCS
Olive Gray Elastic Silt, Saturated, Plant Dertritus Present (roots, twigs)	MH

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-3 0-2'
	AMS ID:	9205
	Date:	6/18/01

Applied Marine Sciences, Inc.

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Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Sample ID: S-4 0-8.8'
AMS Sample ID: 9206

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Result	MDL	Unit	Date Analyzed
84.71	0.01	%	6/12/01

Total Volatile Solids (EPA 160.4)

Result	MDL	Unit	Date Analyzed
0.62	0.01	%	6/13/01

Atterberg Limits (ASTM D4318)

Liquid Limit	Plastic Limit	Plasticity Index	Unit	Date Analyzed
-	NP	-	-	6/4/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Highway 3, Suite B • League City, TX 77573 • (281) 554-7272 • Fax (281) 554-6356

Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury Operations
Client Samp ID: S-4 0-8.8'
AMS Samp ID: 9206

AMS Project Number: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Organic Carbon (EPA SW9060)

Result	Duplicate	RPD	MDL	Unit	Date Analyzed
0.25	0.27	7.69	0.01	%	6/13/01

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KSD

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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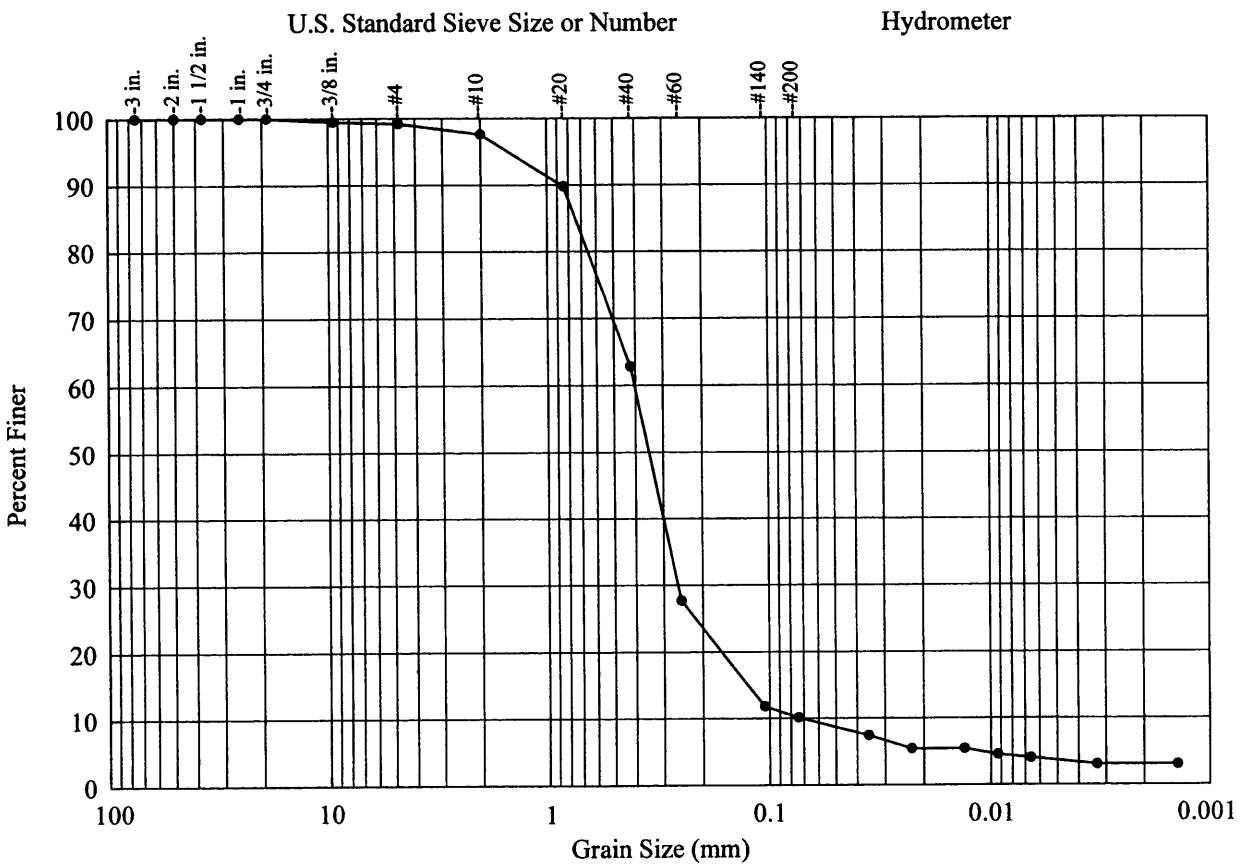

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble	% Gravel	% Sand			% Fines	
		Coarse	Medium	Fine	Silt	Clay
>3"	<3" - #4	#10	#20-#40	#60-#200	0.074-0.005 mm	<0.005 mm
0.00	0.79	1.62	34.82	52.63	6.14	4.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
18	84		NP	0.7	0.40	0.35	0.26	0.130	0.070	2.41	5.71

Material Description	USCS
Olive Gray Poorly-Graded Sand with Silt, Wet	SP-SM

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-4 0-8.8'
	AMS ID:	9206
	Date:	6/18/01

QUALITY CONTROL DOCUMENTATION

Applied Marine Sciences, Inc.

502 N. Highway 3, Suite B • League City, TX 77573 • (281) 554-7272 • Fax (281) 554-6356

AMS QUALITY CONTROL REPORT

Project Number:	G339664	AMS Project Number:	2001-03-06
Project Title:	USACE NAE Allins Cove	Date Sampled:	5/29/01
Client:	Battelle-Duxbury Operations	Date Received:	6/1/01
Battelle Sample ID:	S-4 0-8.8'	Date Analyzed:	6/5/01
AMS Sample ID:	9206	Matrix:	Soil
		Method:	ASTM D422

Replicate Analysis

Size Class	U.S. Standard Sieve Size	Diameter (mm)	Sample Result %	Duplicate Result %	RPD %	QC Limits % RPD
Gravel	No. 4	>4.75	0.79	0.85	7.32	<25
Coarse Sand	No. 10	2.00	1.62	1.91	16.43	<25
Medium Sand	No. 40	0.42	34.82	35.56	2.10	<25
Fine Sand	No. 200	0.074	52.63	50.30	4.53	<25
Silt		<0.074-0.005	6.14	7.39	18.48	<25
Clay		<0.005	4.00	4.00	0.00	<25

Samples in Batch (AMS ID):	9195	9197	9199	9201	9203	9205
	9196	9198	9200	9202	9204	9206

KSD

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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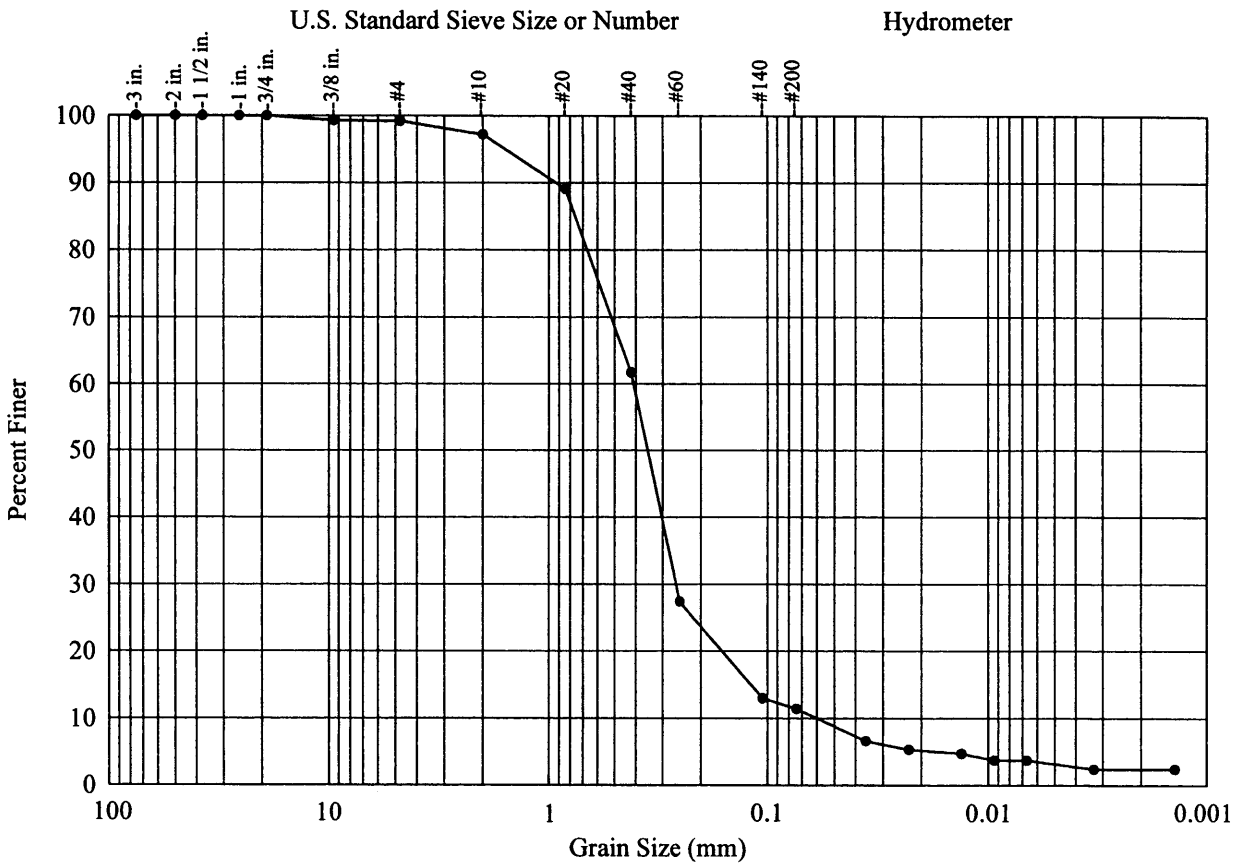

ASTM D422 (Particle-Size Analysis of Soils)

% Cobble	% Gravel	% Sand			% Fines	
		Coarse	Medium	Fine	Silt	Clay
>3"	<3" - #4	#10	#20-#40	#60-#200	0.074-0.005 mm	<0.005 mm
0.00	0.85	1.91	35.56	50.30	7.39	4.00

Water Cont. (%)	Tot. Solids (%)	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
18	84		NP	0.8	0.40	0.35	0.26	0.13	0.06	2.82	6.67

Material Description	USCS
Olive Gray Poorly-Graded Sand with Silt, Wet	SP-SM

Project Description		
USACE-New England District	Client P/N:	G339664
Allins Cove	AMS P/N:	2001-03-06
	Client ID:	S-4 0-8.8'
	AMS ID:	9206-2
	Date:	6/18/01

Applied Marine Sciences, Inc.

502 N. Highway 3, Suite B • League City, TX 77573 • (281) 554-7272 • Fax (281) 554-6356

Quality Control Report

Project No.: G339664
Project Title: USACE NAE
Allins Cove
Client: Battelle-Duxbury Operations
Client Samp ID: S-4 0-8.8
AMS Samp ID: 9206

AMS Project No.: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Date Analyzed: 6/13/01
Matrix: Soil
Methods: EPA SW9060

Continuing Calibration Data

AMS Sample ID	Parameter	SRM Result %	SRM Theoretical %	RPD %	QC Limits % RPD
CC01	TOC	4.87	4.80	1.45	<5

TOC Method Blank

AMS Sample ID	Weight (g)	Result (μg CO_2)	TOC (%)	TDL (%)
CB01	0.5804	17.3	ND	0.01

Samples in Batch (AMS ID): 9198 9205
9202 9206

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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AMS QUALITY CONTROL REPORT

Project Number:	G339664	AMS Project Number:	2001-03-06
Project Title:	USACE NAE-Allins Cove	Date Received:	6/1/01
Client:	Battelle-Duxbury Operations	Date Analyzed:	6/4/01
Client Sample ID:	S-1 1-2'	Matrix:	Soil
AMS Sample ID:	9196	Methods:	ASTM D4318

Atterberg Limits Replicate Analysis

Parameter	Sample Result	Duplicate Result	Difference (%)	QC Limits % Difference
Liquid Limit	53	53	0	<2
Plastic Limit	27	27	0	<2

Samples in Batch (AMS ID):					
	9195	9197	9200	9202	9204
	9196	9199	9201	9203	9206

KSD

AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

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AMS QUALITY CONTROL REPORT

Project Number: G339664
Project Title: USACE NAE-Allins Cove
Client: Battelle-Duxbury operations
Client Sample ID: S-4 0-8.8'
AMS Sample ID: 9206

AMS Project #: 2001-03-06
Date Sampled: 5/29/01
Date Received: 6/1/01
Matrix: Soil

Total Solids (EPA 160.3)

Sample Result (%)	Replicate Result (%)	RPD (%)	QC Limits (% RPD)	Date Analyzed
84.71	84.61	0.12	<10	6/12/01

Total Volatile Solids (EPA 160.4)

Sample Result (%)	Replicate Result (%)	RPD (%)	QC Limits (% RPD)	Date Analyzed
0.62	0.59	4.96	<10	6/12/01

Samples in Batch (AMS ID): 9195 9199 9203
9196 9200 9204
9197 9201 9206

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

AMS, Inc. Project Manager

ALLIN'S COVE MARSH RESTORATION

Sept 2003 Explorations - Field Logs

Test Hole number	sand/organic	sand/shell	silt/clay	Comments
1	0"-6 "	6"-30"	30"-46"	
2	0"-6"	6"-40"	40"-46"	
3	0"-6"	6"-40"		shell hash
4	0"-4"	6"-31"		shell hash
5	0"-5"	6"-37"	37"-46"	
6	0"-6"	6"-40"		34"-40" silty sand
7	0"-8"			gravelly loam - too rocky for auger to penetrate
8	0"-8"	8"-48"		
9	0"-5"			
10	0"-4"	4"-12"		gravelly loam - too rocky for auger to penetrate
11	0"-6"	6"-42"		shell hash
12	0"-3"	3"-45"		shell hash
13	0"-3"	3"-45"		
14	0"-3"	3"-48"		
15		0"-26"		sand /shell hash
16	0"-8"	8"-28"	28"-40"	
17	0"-8"	8"-28"	28"-36"	

NOTES:

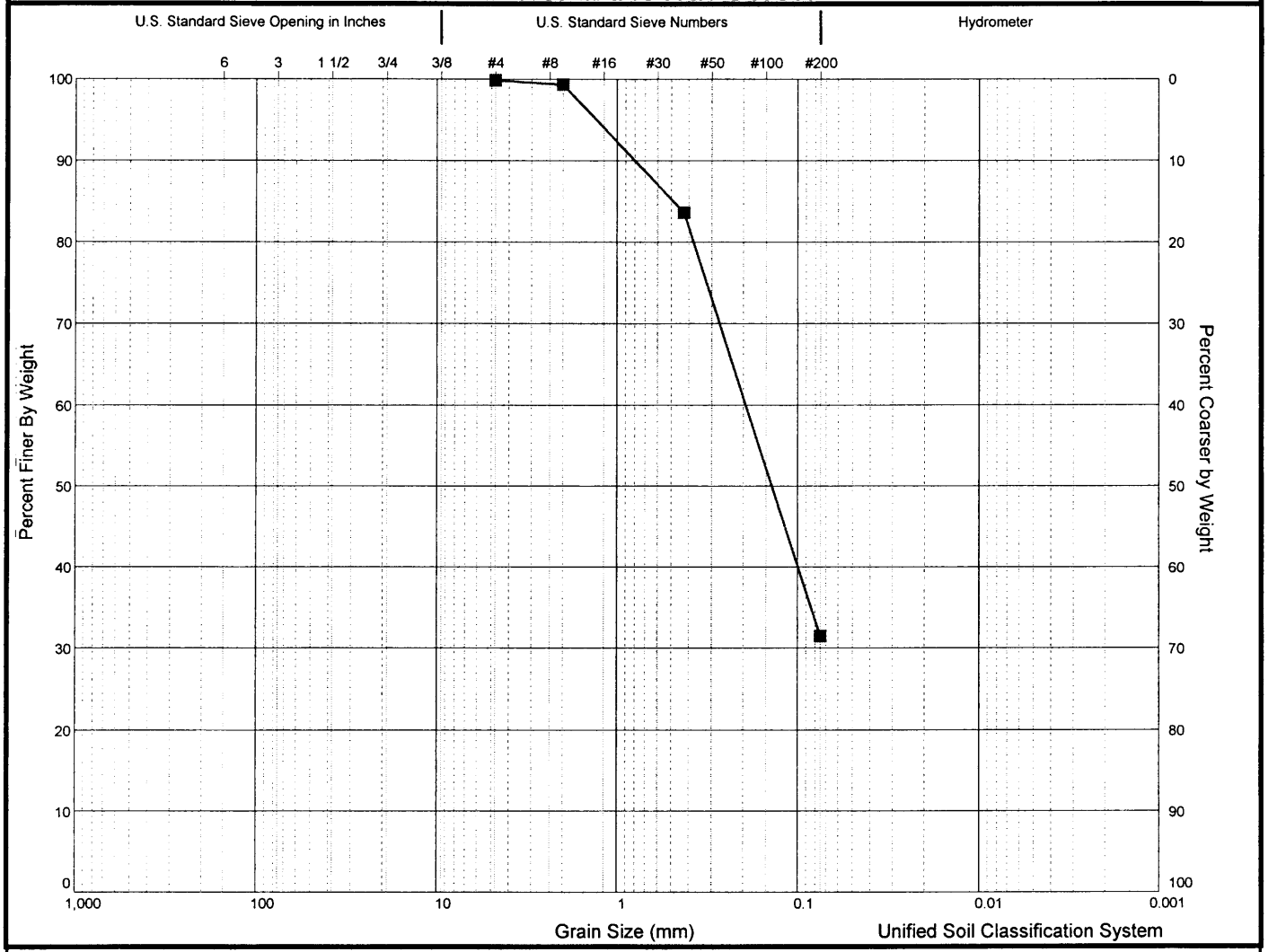
1. Test Holes performed in September 2003 by Rhode Island CRMC personnel.
2. All test holes were performed with a 3" diameter hand auger. Only visual identification of samples was conducted.
3. Where noted on the logs, shell hash was encountered in the hole which the auger could not penetrate.

December 2003 Sample Laboratory Tests

Sample collected using 3" hand core, two adjacent holes @ 3 ft depth each, location C-1 on drawings.

The following lab tests were performed on a composite of these two cores.

GRAINSIZE DISTRIBUTION



% Coarse	% Sand	% Silt	% Clay
0.1%	68.4%	18.9%	12.5%

LL	PL	PI	D60 (mm)	D50 (mm)	D30 (mm)	D20 (mm)	D10 (mm)	Cc	Cu
			0.2	0.2	0.1	0.0	0.0	14.1	136.5

Soil Description	USCS	USDA
Brown with hint of green. Sand with clay. Organic odor.		

NP=No plastic limit

Company: Woods Hole Group Environmental Labs
Address: 375 Paramount Drive, Suite 2
Raynham Massachusetts 02767
Country: United States
Telephone: 508-822-9300 **Fax:** 508.822.3288

USCS GRAIN-SIZE DISTRIBUTION

Project No.: 0312007 **Borehole:** 0312007-01
Project Name: Allin's Cove
Location: Proposed channel Sta. 7+25
Soil Counter: 903018686 **Sample ID:** 0312007-01
Depth: 0 - 3 ft C-1

December 2003

Inorganics

Client: **Army Corps of Engineers**
Project: **Allin's Cove**
Case: **N/A** SDG: **N/A**
Client ID: **Proposed Channel**
Matrix: **Sediment**
Percent Solid: **64.7**

Lab Code: **MA00030**
ETR: **0312007**

Lab ID: **0312007-01**
Date Collected: **12/03/03**
Date Received: **12/03/03**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.3**		0.01	1	12/10/03	%	9060	NAR
Total Organic Carbon (Run 2)	**1.5**		0.01	1	12/10/03	%	9060	NAR
Cyanide, Total	0.13	U	0.13	1	12/10/03	mg/Kg	9014	DEB
Solids, Percent	**65**		0.10	1	12/04/03	%	2540G	KJB
Solids, Volatile	**2.9**		0.10	1	12/05/03	%	2540G	KJB
Water Content	**56**		0.10	1	12/04/03	%	ASTM D2216-98	KJB

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288, whale@whgrp.com

DOCUMENT TABLE OF CONTENTS

DOCUMENTS 00 - INTRODUCTORY, BIDDING, AND CONTRACT REQUIREMENTS

SECTION 00800

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1.2 LIQUIDATED DAMAGES - CONSTRUCTION (Sept 2000) FAR 52.211-12
1.3 TIME EXTENSIONS (Sept 2000) FAR 52.211-13
1.4 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001
1.5 DESIGNATED BILLING OFFICE
1.6 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (OCT 1989) ER 415-1-15
1.7 BID GUARANTEE (SEP 1996) FAR 52.228-1
1.8 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1
1.9 WARRANTY OF CONSTRUCTION (MAR 1994) FAR 52.246-21 Alternate I
1.10 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(DEC 1991)
1.11 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991) DFARS 252.236-7004.

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SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

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

a. The Contractor shall be required to--

(1) commence work under this contract within 15 calendar days after the date the Contractor receives the notice to proceed,

(2) prosecute the work diligently, and

(3) complete the entire work ready for use not later than March 30, 2005. The time stated for completion shall include final cleanup of the premises. See Article "Work Sequence" in Section 01110 SUMMARY OF WORK.

b. Time Extension for Planting: In the event the contract completion date, as established in Subparagraph "a" above, is thirty (30) days or more after the date established for planting in the Section 02921 TURF, the contract completion date for planting will be the last date of the next succeeding period specified as acceptable for planting.

c. Due to environmental restrictions, construction operations within the upland marsh areas at the project site will only be permitted from September 01, 2004 to March 30, 2005, and construction operations within water areas at the project site will only be permitted from September 01, 2004 to January 31, 2005. Upon receipt of notice to proceed, in lieu of construction operations at the site, the Contractor shall promptly place all orders, award subcontracts, process required submittals and details to ensure effective action when construction operations at the site are required to commence. Construction operations at the project shall commence on September 01, 2004.

d. Should the nesting of Federally protected birds at the work site postpone the commencement of work or stop work underway, an equitable adjustment will be made to the contract.

1.2 LIQUIDATED DAMAGES - CONSTRUCTION (Sept 2000) FAR 52.211-12

(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 amounts specified below 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.

(c) Entire Work: For failure to complete the entire work until the work is completed or accepted, except for and planting, the sum of

$550.00 for each calendar day of delay.

(d) Planting: For failure to complete the planting by the date established in Article 1.1.b above, the sum of $230.00 for each calendar day of delay beyond the established date until the planting is completed or accepted.

1.3 TIME EXTENSIONS (Sept 2000) FAR 52.211-13

Time extensions for contract changes 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 related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

1.4 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference The drawings will be provided to the Contractor in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall-

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications, and to the contract drawings identified on the following index of drawings:

Sheet No.	Drawing File No.	Title

SECTION 1135, COASTAL WETLAND
ECOSYSTEM RESTORATION PROJECT
ALLIN'S COVE
BARRINGTON, RHODE ISLAND

2	C-1	acrc101.s02	Existing Site Plan, Survey Ties, Notes and Index

1.5 DESIGNATED BILLING OFFICE

Reference Contract Clause titled "PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS" located in SECTION 00700, CONTRACT CLAUSES. The "designated billing office" will be the Construction Area Engineer, Resident Engineer or project office where the Contracting Officer Representative for this contract is located. The Contractor will be notified of the exact location of this office at the project preconstruction conference specified in Section 01110 SUMMARY OF WORK.

1.6 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (OCT 1989) ER 415-1-15

a. This provision specifies the procedure for the 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.

(1) The weather experienced at the project 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.

(2) 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.

b. 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.

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

JAN	FEB	MAR	APR	MAY	JUN
(9)	(6)	(3)	(3)	(3)	(2)

JUL	AUG	SEP	OCT	NOV	DEC
(2)	(3)	(3)	(3)	(4)	(7)

c. 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 b, 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)."

1.7 BID GUARANTEE (SEP 1996) FAR 52.228-1

(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 twenty 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.

1.8 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty percent (20%) of the total amount of work to be performed under the contract. This percentage may be reduced by a 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.

1.9 WARRANTY OF CONSTRUCTION (MAR 1994) FAR 52.246-21 Alternate I

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date

of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(k) Defects in design or manufacture of equipment specified by the

Government on a 'brand name and model' basis, shall not be included in this warranty. In this event, the Contractor shall require any subcontractors, manufacturers, or suppliers thereof to execute their warranties, in writing, directly to the Government.

1.10 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(DEC 1991)

(a) The Contractor shall-

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may-

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et.seq.).

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

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) Sixty 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 a(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.

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SECTION 01110

SUMMARY OF WORK

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

The general description below is given to indicate the approximate scope of this project only. It does not limit the work required under the project drawings and specifications.

Allin's Cove in Barrington, Rhode Island is a small embayment of Narragansett Bay estuary about 21 acres in size. About 8 acres at the southern end of the cove were used as a dredged material disposal site during the dredging of nearby Bullock Point Cove in 1959. The filling elevated the marsh and sub-tidal areas above the normal range of the tide. Phragmites has colonized the filled area. Overtime, the sand spit at the southerly end of the filled area has migrated north-northwest due to wave action. Migration of the barrier spit northward has displaced the tidal inlet northward toward Byway Road. The shoreline next to Byway Road is eroding and eventually Byway Road and the adjacent salt marsh will be lost.

The work consists of restoring coastal habitat in Allin's Cove by excavating portions of filled area, disposing of the excavated material in an on-site disposal area, realigning the tidal inlet, constructing a north sand spit along Byway Road, and reforming the south sand spit at the toe of the disposal area. Excavation and grading will be performed mechanically by conventional construction equipment using low pressure tires or tracks. During marsh excavation sediment runoff will be prevented by construction of silt fencing. Some disturbed areas will be seeded with suitable coastal grasses in areas most susceptible to erosion. Two osprey platforms will be constructed to increase nesting habitat.

1.2 SUBMITTALS

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

SD-01 Preconstruction Submittals

Progress Schedule; G, RO.

In accordance with the contract clauses, the Contractor shall, within fifteen (15) days after receipt of notice to proceed or as otherwise determined by the Contracting Officer, submit for approval a practicable progress schedule. When changes are authorized that result in contract time extensions, Contractor shall submit a modified chart for approval by the Contracting Officer.

1.3 PROJECT/SITE CONDITIONS

1.3.1 Physical Data

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

a. Site Conditions: The indications of physical conditions on the drawings and in the specifications are the result of site investigations and surveys. The conditions represented prevailed at the time the investigations and surveys were made. A pre-construction survey may be performed by the Government prior to the start of Contractor excavation operations at the site. Before commencing work at the site, the Contractor shall verify the existing conditions indicated on the drawings and in the specifications. See CONTRACT CLAUSE entitled "SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK."

b. Weather Conditions: The monthly normal mean temperature and the monthly normal mean precipitation for the site may be obtained by the Contractor from the nearest U.S. National Weather Service Office.

c. Tide Conditions: The currents are tidal with velocities through the inlet likely to exceed one knot. Complete tidal flood and ebb to Allin;s Cove shall be maintained at all times during construction. It will be the Contractor's responsibility to protect against locally generated wave effects at the construction site.

Tide Levels of Allin;s Cove
(Estimated from the COE Tide Flood Profiles, New England Coastline, September 1988)

EVENT	TIDE LEVEL (FT NGVD)
100-yr Tide Event	14.8
50-yr Tide Event	13.8
10-yr Tide Event	8.3
Max Predicted Astronomical High Water	5.0
Mean High Water Spring (MHWS)	3.5
Mean High Water (MHW)	2.9
Mean Tide Level	0.7
National Geodetic Vertical Datum (NGVD)	0.0
Mean Low Water (MLW)	-1.5
Mean Lower Low Water (MLLW)	-1.9

1.4 WORK SEQUENCE AND SCHEDULING

1.4.1 General

There are certain essential criteria relative to the preparation of a work sequence and time schedule which the Contractor will be required to implement and follow during the prosecution of the work. Variations in the sequence of the items of work given below in Article "Sequence Of Construction" may be made by the Contractor, provided such variations do not conflict with critical elements of the schedule. Proposed variations shall be noted on the progress charts submittal required by CONTRACT CLAUSE, entitled "SCHEDULES FOR CONSTRUCTION CONTRACTS." Variations shall be approved by the Contracting Officer prior to implementation.

1.4.2 Sequence Of Construction

CHANNEL AND SAND SPIT CONSTRUCTION

1. Clear North Sand source and Upland Disposal areas. Excavate the top 6 inches of material from disposal area and stockpile on site for use as final cover for disposal area.

2. Excavate entire south sand source area within the disposal area to a depth of 3 feet. Remove excavated sand material for the new North sand spit (approximately 1600 CY) and stockpile at the end of the existing north sand spit for eventual construction of the North sand spit. Haul and stockpile the remaining sand material at the south sand spit.

3. Excavation of the new channel from Sta. 4+25 to Sta. 9+89 shall be performed prior to excavation of the portion of the channel which cuts through the north sand source area (Sta. 4+25 to 3+00). Excavate the new channel from Sta. 4+25 to 9+89 using load distributing mats and excavator to access area. Place the material excavated from the channel in the disposal area.

4. Construct new channel between Sta. 4+25 and Sta. 0+00. The Contractor will be able to access the new north sand spit area from Ocean Ave. or Byway Road. However, the Contractor may choose to install temporary culverts or only partially excavate the new channel in order to facilitate access to the north sand spit area from the south. If used, the temporary channel diversion (between Sta. 4+00 and 3+00) shall preserve the existing tidal flow and consist of either:

   a. Installation of temporary culverts, equivalent to two 5'x10'culverts ~20 ft long each, (invert between El. -0.5 ft and -1.5 ft NGVD). Cover with on-site sand material to provide access to existing north sand spit for equipment access; or

   b. Excavation of new channel for full width, but only to El. -0.5 ft NGVD. Place and anchor mats along bottom of new channel. Access will be limited at higher tide levels.

5. Move stockpiled sand material from the north sand source area into the new north sand spit area, filling in the existing channel. Excavate the sand source area and place material in the new sand spit area. The new or temporary channel, as described above, shall be completed prior to commencing this step. Equipment access to new North sand spit area shall be via Byway Rd. or Ocean Ave, or over the temporary diversion described above, if constructed. A temporary access ramp using fill materials may

need to be constructed at Byway Road to access the new spit area.

6. Construct Byway Road shoulder and finalize grading of north sand spit.

7. Remove the temporary channel diversion (if installed) and finish excavation and grading of the new channel from Sta. 4+25 to Sta. 0+00.

8. Install new culvert extension pipe (15" BCCMP) with prefabricated headwall at south sand spit. Place riprap at new outfall location, and finalize grading of the south sand spit.

MARSH AND TIDAL CREEK EXCAVATION

1. The high and low marsh excavations shall be done concurrently with the sand spit construction. Excavated marsh material shall not be placed within the disposal area until all of the sand source material within the disposal area has been excavated and utilized as specified. The vegetation and root mat material from the marsh excavations shall be placed in the disposal area along with the soil. This material shall be placed at the bottom of the disposal area to the extent practical to hinder future growth of Phragmites within the disposal area. Excavate the new tidal creeks and widen the existing creek in the high marsh land as shown. Trees and brush material that have been chipped may be disposed on site within the upland disposal area as directed.

2. Excavated marsh material with a high water content shall be worked and dried to a consistency to allow placement in the disposal area in lifts, and lightly compacted so as to avoid the future development of sinkholes. Cap the disposal area with the stockpiled stripped material and grade.

3. Upon completion of the marsh excavation, install the osprey platforms as shown on the drawings.

1.4.3 Hours of Operations

Normal work hours may be from 7:00 a.m. through 5:00 p.m., Monday through Friday. The Contractor will not be permitted to work on Saturday, Sunday or legal holidays unless otherwise authorized by the Contracting Officer. The exclusion of work on Saturday, Sunday and legal holidays has been considered in computing the performance time of this contract. The following legal holidays are observed:

January 1st
Third Monday in January
Third Monday in February
Last Monday of May
July 4th
1st Monday of September
2nd Monday of October
11th of November
Fourth Thursday of November
25th of December

When one of the above designated legal holidays falls on a Sunday, the following Monday will be observed as a legal holiday. When a legal holiday falls on a Saturday, the preceding Friday is observed as a holiday. Requests to perform work at other times shall be made in writing to the Contracting Officer. Every effort will be made to accommodate such

requests.

1.4.4 Progress Schedule

The progress schedule shall be in the form of a chart graphically indicating the sequence proposed to accomplish each work feature or operation. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed and indicating calendar days to completion. Contractor shall indicate on the chart the important work features or operations that are critical to the timely overall completion of the project. Key dates for such important work features and portions of work features are milestone dates and shall be so indicated on the chart. This schedule will be the medium through which the timeliness of the Contractor's construction effort is appraised.

1.4.5 Work Specified Elsewhere

Certain other construction sequence and time period restrictions relative to particular items of work are specified in the applicable specification sections to which the work pertains, and as specified on the contract drawings.

1.4.6 Organization at the Site

1.4.6.1 General

The Contractor shall employ ample personnel and sufficient equipment to accomplish the work of this contract in the least amount of time, within the prosecution period specified in SPECIAL CONTRACT REQUIREMENTS, Clause 1.

1.4.6.2 Rate of Progress

Should the Contractor fail to maintain a satisfactory rate of progress in accordance with the Contractor's approved progress schedule, the Contracting Officer may require that additional personnel and equipment be placed on the work and weekend and overtime work be performed, in order that the work be brought up to schedule and maintained.

1.5 CONTRACTOR USE OF PREMISES

1.5.1 Storage Areas

See Section 01500 TEMPORARY FACILITIES AND CONTROLS.

1.5.2 Work Limits

Work shall be restricted to the areas shown on the contract drawings in addition to storage areas shown on the drawings.

1.5.3 Contractor's Receipt of Supplies

The Contractor shall be responsible for all arrangements for the receipt of materials and supplies at the job site. Government personnel are not permitted to receive or sign for items delivered to the site.

1.5.4 Access to Work Site

Access to the project site is currently available for construction traffic

as shown on the drawings.

1.6 LOCATION OF UNDERGROUND FACILITIES

Obtain necessary digging permits prior to start of excavation. Verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed but indicated in locations to be traversed by heavy equipment. Protect existing utility lines that are indicated to remain from damage. Notify the Contracting Officer immediately of damage to or an encounter with an unknown existing utility line. The Contractor shall be responsible for the repairs of damage to existing utility lines that are indicated or made known to the Contractor prior to start of construction operations.

1.6.1 Existing Sewer Pipe at Willow Way

There is an existing sewer pipe crossing at the end of Willow Way that extends into the work area, located approximately as indicated on the drawings. The Contractor shall verify the location of the sewer line and type of pipe, and report this information to the Contracting Officer. At locations where heavy equipment will cross the sewer line, minimum 1" thick road plates or other approved protection shall be placed to protect the sewer pipe from heavy equipment damage.

1.6.2 Notification Prior to Excavation

For excavation work in Rhode Island call 1-800-225-4977. Notification shall not be earlier than 30 days prior, nor later than 3 days prior, to the planned excavation.

1.7 PRECONSTRUCTION CONFERENCE

The Contracting Officer will conduct a preconstruction conference with key Contractor personnel. The purpose of the conference is to review contract requirements and to establish a working relationship between the Contractor's Staff and the Corps Of Engineers personnel who will be closely associated with the project. During the conference, the Contracting Officer will inform the Contractor concerning Job Safety, Quality Control, Labor Relations, and Environmental Protection. The Contractor's Superintendent, Quality Control Representative, and Site Safety and Health Officer (SSHO) shall attend this conference. All submittals, which are ready for submission prior to start of work, may be brought to the conference for distribution to the participating reviewers.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 REFERENCES (Not Applicable)

1.2 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. 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.

1.3 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 BIDDING 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. Submit originals of all field notes and all other records relating to Quantity Surveys.

1.4 BIDDING SCHEDULE - PAYMENT ITEMS

Payment items for the work of this contract on which the contract progress payments will be based are listed in the BIDDING SCHEDULE and are described below. All costs for items of work, which are not specifically mentioned to be included in a particular Bidding Schedule lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved.

1.4.1 Item No. 0001, "Mobilization and Demobilization"

a. Payment will be made for costs associated with mobilization and demobilization for construction operations, as defined in Special Contract Requirements clause "PAYMENT FOR MOBILIZATION AND DEMOBILIZATION."

b. Unit of measure: lump sum.

1.4.2 EXCAVATION AND FILL PAYMENT ITEMS

0002 Excavation Material To Be Disposed:

0002AA High Marshland 2.8 Acres Excavated To El.3.1

0002AB Low Marshland 0.6 Acre Excavated To El. 1.4

0002AC Tidal Creeks Excavation

0002AD Channel Excavation Sta. 4+25 to 9+89

0003 Sand Excavation for Sand Spits

0003AA. From North Sand Source Area

0003AB Channel Excavation Sta. 0+00 to Sta. 4+25

0003AC South Sand Source (Inside Upland Disposal Area)

0004 Gravel Fill Material For Byway Road

1.4.2.1 Measurement of Excavation and Fills

The unit of measurement for excavation and fills for the Payment Items listed above will be the cubic yard, computed by the average end area method from cross sections taken before and after the excavation and filling operations, including topsoil. The volume to be paid for will be the number of cubic yards of material measured in its original position and removed from the excavation when the material is acceptably utilized or disposed of as herein specified. The measurement will not include the volume of subgrade material or other material that is scarified or plowed and reused in-place, and will not include the volume excavated without authorization or the volume of any material used for purposes other than directed. The measurement will not include the volume of any excavation performed prior to the taking of elevations and measurements of the undisturbed grade. Final grading and seeding of the re-constructed shoulder will be considered subsidiary obligations of the Contractor, covered under the contract unit prices for gravel fill material.

1.4.2.2 Payment for Excavation and Fills

Payment will constitute full compensation for all labor, equipment, tools, supplies, and incidentals necessary to complete the work.

1.4.3 Item No. 0005 Provide Osprey Nesting Platforms

1.4.3.1 Payment

Payment will be made for costs associated with operations necessary for construction and installation of the Osprey Nesting Platforms as shown and as specified.

1.4.3.2 Unit of Measure

Unit of measure: Each.

1.4.4 Item No. 0006 Extend Existing 15" Drainage Pipe 20 LF and Construct New Concrete Head Wall

1.4.4.1 Payment

Payment will be made for costs associated with operations necessary for extending the existing 15" drainage pipe 20 linear feet and construction of

a new concrete head wall and riprap splash apron as shown and as specified.

1.4.4.2 Unit of Measure

Unit of measure: Lump Sum.

1.4.5 Item No. 0007 Seeding Disposal Area

1.4.5.1 Payment

Payment will be made for costs associated with operations necessary for seeding the disposal area as shown and as specified.

1.4.5.2 Unit of Measure

Unit of measure: Lump Sum.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

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SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

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SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

PART 1 GENERAL

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 01330, SUBMITTAL PROCEDURES, and Section 01451, 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 Government will make available the QCS software to the Contractor after award of the construction contract. 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. Upon specific justification and request by the Contractor, the Government can provide QCS on 3-1/2 inch high-density diskettes or CD-ROM. Any program updates of QCS will be made

available to the Contractor via the Government RMS Website as they become available.

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 500 MHz Pentium or higher processor

128+ MB RAM for workstation / 256+ MB RAM for server

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

3 1/2 inch high-density floppy drive

Compact disk (CD) Reader, 8x speed or higher

SVGA or higher resolution monitor (1024 x 768, 256 colors)

Mouse or other pointing devise

Windows compatible printer (Laser printer must have 4+ MB of RAM)

Connection to the Internet, minimum 56 BPS

Software

MS Windows 98, ME, NT, or 2000

Word Processing software compatible with MS Word 97 or newer

Latest version of : Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher

Electronic mail (E-mail), MAPI compatible

Virus protection software that is regularly upgraded with all issued manufacturer's updates

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; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control(CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

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. 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 01451, 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 01451, 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. Each day 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 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, transferred and installed property, and user training requirements in QCS. 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 Government will provide the initial submittal register, ENG Form 4288, SUBMITTAL REGISTER, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. 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". This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format

(SDEF). 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 submittal register and other Government-provided data, and schedule data using SDEF.

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.

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.

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SECTION 01330

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SECTION 01330

SUBMITTAL PROCEDURES

1.1 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01 Preconstruction Submittals

SD-02 Shop Drawings

SD-03 Product Data

SD-04 Samples

SD-05 Design Data

SD-06 Test Reports

SD-07 Certificates

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Government 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."

1.2.2 Information Only

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.

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.

1.3 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 Contractor Quality Control (CQC) requirements of this contract is responsible for the satisfactory construction of all work. . After submittals have been

approved by the Contracting Officer, no resubmittal for the purpose of substituting materials will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 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.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.6 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) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, or manufacturer's, descriptive literature including (but not limited to) catalog cuts, diagrams, test reports; samples; 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.

1.7 SUBMITTAL REGISTER

At the end of this section is a submittal register showing 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. The Contractor shall maintain a submittal register for the project in accordance with Section 01312 QUALITY CONTROL SYSTEM (QCS). The Government will provide the initial submittal register in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall track all submittals.

1.8 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 21 calendar days exclusive of mailing time) 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.

1.9 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 are included in the QCS software that the Contractor is required to use for this contract. 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.

1.10 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

1.10.1 Procedures for Review Copies

Submit seven (7) copies of each submittal item with an attached ENG FORM 4025 Transmittal Form. The Contractor will be informed at the pre-construction conference to send all submittals to either the project Resident Office or to the project Area Engineer Office, as applicable.

a. Construction/Operations Division ("RO" Reviewer): An "RO" in column "f" indicates that the submittal review action is by New England District Construction/Operations Division.

b. Engineering/Planning Division ("DO" Reviewer): An "DO" on the attached submittal register, column "f" indicates that the submittal review action is by the New England District, Engineering/Planning Division.

1.10.2 Information on Submittal Status

All Contractor requests for current status of submittal reviews shall be made through the Resident Engineer.

1.10.3 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.

1.11 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

1.12 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. Five copies of the submittal will be retained by the Contracting Officer and two copies of the submittal will be returned to the Contractor.

1.13 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.

1.14 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

-- End of Section --

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE

(Read instructions on the reverse side prior to initiating this form)

DATE

TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:

FROM:

CONTRACT NO.

CHECK ONE:
☐ THIS IS A NEW TRANSMITTAL
☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____

SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*

PROJECT TITLE AND LOCATION

CHECK ONE: THIS TRANSMITTAL IS FOR ☐ FIO ☐ GOV'T. APPROVAL

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* *b.*	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction no. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruction No. 6)* *h.*	FOR CE USE CODE *i.*
				SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*			

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated.

_____

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY

DATE

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 submittals 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 effect 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.

B -- Approved, except as noted on drawings.

C -- Approved, except as noted on drawings. Refer to attached sheet resubmission required.

D -- Will be returned by separate correspondence.

E -- Disapproved (See attached).

F -- Receipt acknowledged.

FX -- Receipt acknowledged, does not comply as noted with contract requirements.

G -- Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

SUBMITTAL REGISTER

CONTRACT NO.
W912WJ-04-B-0011

TITLE AND LOCATION
ECOSYSTEM RESTORATION, ALLIN'S COVE, BARRINGTON, RI

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01110	SD-01 Preconstruction Submittals															
			Progress Schedule	1.4.4	G RO													
		01355	SD-01 Preconstruction Submittals															
			Environmental Protection Plan	1.7	G RO													
		01356	SD-07 Certificates															
			Mill Certificate or Affidavit	2.1.3														
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SUBMITTAL REGISTER

CONTRACT NO.
W912WJ-04-B-0011

TITLE AND LOCATION
ECOSYSTEM RESTORATION, ALLIN'S COVE, BARRINGTON, RI

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
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SECTION 01355

ENVIRONMENTAL PROTECTION

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.

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

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) U.S. Army Corps on Engineers Safety and Health Requirements Manual
WETLAND MANUAL	Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes

management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.2.4 Wetlands

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland must be done in accordance with WETLAND MANUAL.

1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable environmental Federal, State, and local laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

1.4 SUBCONTRACTORS

The Contractor shall ensure compliance with this section by subcontractors.

1.5 PAYMENT

No separate payment will be made for work covered under this section. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor. All costs associated with this section shall be included in the contract price. The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

1.6 SUBMITTALS

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

SD-01 Preconstruction Submittals

Environmental Protection Plan; G, RO

The environmental protection plan.

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction activities or delivery of materials to the site, the Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. Prior to submittal of the Environmental Protection Plan, the Contractor shall meet with the Contracting Officer for the purpose of discussing the implementation of the initial Environmental Protection Plan; possible subsequent additions and revisions to the plan including any reporting requirements; and methods for administration of the Contractor's Environmental Plans. The Environmental Protection Plan shall be current and maintained onsite by the Contractor.

1.7.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.7.2 Contents

The environmental protection plan shall include, but shall not be limited to, the following:

a. Name(s) of person(s) within the Contractor's organization who is(are) responsible for ensuring adherence to the Environmental Protection Plan.

b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.

c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.

d. Description of the Contractor's environmental protection personnel training program.

e. An erosion and sediment control plan which identifies the type and location of the erosion and sediment controls to be provided. The plan shall include monitoring and reporting requirements to assure that the control measures are in compliance with the erosion and sediment control plan, Federal, State, and local laws and regulations. A Storm Water Pollution Prevention Plan (SWPPP) may be substituted for this plan.

f. Drawings showing locations of proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials

including methods to control runoff and to contain materials on the site.

g. Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plan shall include measures to minimize the amount of mud transported onto paved public roads by vehicles or runoff.

h. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas including methods for protection of features to be preserved within authorized work areas.

i. The Spill Control plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and the local Fire Department in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.

2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.

3. Training requirements for Contractor's personnel and methods of accomplishing the training.

4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

6. The methods and procedures to be used for expeditious contaminant cleanup.

j. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of solid waste. Licenses or permits shall be submitted for solid waste disposal sites that are not a commercial operating facility. Evidence of the disposal facility's acceptance of the solid waste shall be attached to this plan during the construction.

k. An air pollution control plan detailing provisions to assure that

dust, debris, materials, trash, etc., do not become air borne and travel off the project site.

l. A historical, archaeological, cultural resources biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on the project site: and/or identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in the area are discovered during construction. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

1.7.3 Appendix

Copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination documents shall be attached,as an appendix, to the Environmental Protection Plan.

1.8 PROTECTION FEATURES

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, the Contractor and the Contracting Officer shall make a joint condition survey. Immediately following the survey, the Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report shall be signed by both the the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness. The Contractor shall protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference which their preservation may cause to the Contractor's work under the contract.

1.9 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings,plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.10 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until

satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

This Article supplements the Contractor's responsibility under the contract clause PERMITS AND RESPONSIBILITIES to the extent that the Government has already obtained the listed environmental permits issued for this project. A Water Quality Certification (WQC) issued by the Rhode Island Department of Environmental Protection and a Coastal Zone Consistency Determination have been obtained for this project. The Contractor shall comply with permit terms and conditions that are applicable to this contract. Such applicable terms and conditions have been extracted from the permits and are specified in the various sections of these specifications and on the contract drawings. The above referenced documents shall not be relied on for contract requirements. In the event a discrepancy is discovered between the reference documents and these specifications or the contract drawings, the Contractor shall notify the Contracting Officer for clarification. The Contracting Officer will rely on permit requirements and conditions to resolve perceived conflicts. Copies of the WQC and Coastal Zone Consistency Determination are included at the end of this section for reference only.

3.2 LAND RESOURCES

The Contractor shall confine all activities to areas defined by the drawings and specifications. Prior to the beginning of any construction, the Contractor shall identify any land resources to be preserved within the work area. Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without approval. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, soil, or other materials displaced into uncleared areas shall be removed by the Contractor.

3.2.1 Work Area Limits

Prior to commencing construction activities, the Contractor shall mark the areas that need not be disturbed under this contract. Isolated areas within the general work area which are not to be disturbed shall be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, any markers shall be visible in the dark. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

3.2.2 Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features

indicated and defined on the drawings to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. The Contractor shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work area.

3.2.3 Erosion and Sediment Controls

The Contractor shall be responsible for providing erosion and sediment control measures in accordance with Federal, State, and local laws and regulations. The erosion and sediment controls selected and maintained by the Contractor shall be such that water quality standards are not violated as a result of the Contractor's construction activities. The area of bare soil exposed at any one time by construction operations should be kept to a minimum. The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs) as specified in Section 01356 STORM WATER POLLUTION PREVENTION MEASURES. BMPs may include, but not be limited to, vegetation cover, stream bank stabilization, slope stabilization, silt fences, construction of terraces, interceptor channels, sediment traps, inlet and outfall protection, diversion channels, and sedimentation basins. Any temporary measures shall be removed after the area has been stabilized.

3.2.4 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved. Erosion and sediment controls shall be provided for on-site borrow and spoil areas to prevent sediment from entering nearby waters. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas.

3.3 WATER RESOURCES

The Contractor shall monitor construction activities to prevent pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation unless otherwise indicated. All water areas affected by construction activities shall be monitored by the Contractor.

3.3.1 Diversions and Dewatering Operations

Construction operations for dewatering shall be controlled at all times to maintain compliance with existing State water quality standards and designated uses of the surface water body. The Contractor shall comply with the State of Rhode Island water quality standards and anti-degradation provisions.

3.3.2 Stream Crossings

Stream crossings shall allow movement of materials or equipment without violating water pollution control standards of the Federal, State, and local governments.

3.3.3 Wetlands

The Contractor shall not enter, disturb, destroy, or allow discharge of contaminants into any wetlandsexcept as authorized herein. The Contractor

shall be responsible for the protection of wetlands shown on the drawings in accordance with paragraph ENVIRONMENTAL PERMITS AND COMMITMENTS. Authorization to enter specific wetlands identified shall not relieve the Contractor from any obligation to protect other wetlands within, adjacent to, or in the vicinity of the construction site and associated boundaries.

3.4 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal and State air emission and performance laws and standards.

3.4.1 Particulates

Dust particles; aerosols and gaseous by-products from construction activities; and processing and preparation of materials; shall be controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates which would cause the Federal, State, and local air pollution standards to be exceeded or which would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp at all times. The Contractor must have sufficient, competent equipment available to accomplish these tasks. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs. The Contractor shall comply with all State and local visibility regulations.

3.4.2 Odors

Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State regulations and/or local ordinances.

3.4.3 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall comply with the provisions of the State of Rhode Island rules.

3.4.4 Burning

Burning will not be allowed on the project site.

3.5 WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

3.5.1 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off site and

dispose of it in compliance with Federal, State, and local requirements for solid waste disposal.

3.5.2 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be accordance with all Federal, State, and local laws and regulations.

3.6 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.7 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State, Regional, and local laws and regulations.

3.8 PREVIOUSLY USED EQUIPMENT

The Contractor shall clean all previously used construction equipment prior to bringing it onto the project site. The Contractor shall ensure that the equipment is free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. The Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.9 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.10 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct

environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. The training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, wetlands, and endangered species and their habitat that are known to be in the area.

3.11 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work.

-- End of Section --

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

June 17, 2004

Mr. Dennis Phelan, Town Manager
Town of Barrington
283 County Road
Barrington, RI 02806

RE: WQC File No. 04-031; Allin's Cove Coastal Wetland Restoration, Barrington

Dear Mr. Phelan,

The RIDEM-Office of Water Resources (OWR) has reviewed your application for a Water Quality Certificate (WQC) for the above referenced project. The project involves performing a habitat restoration of 4.3 acres of saltmarsh by removing approximately 8,200 cubic yards of previously disposed dredge material from the existing Phragmites marsh. The project includes a realignment of the Allin's Cove tidal inlet to a pre-1938 position, with creation of beach strand habitat northwest and southeast of the new inlet.

We have reviewed the subject application and site plans entitled "Section 1135, Coastal Wetland Ecosystem Restoration Project," sheets C-1 through C-10, dated (stamped "Received" by the Department March 26, 2004). The State water associated with this project is Allin's Cove/Narragansett Bay (Class SB{a}).

It is the opinion of the WQC Program that said project is in compliance with the requirements of the State Water Quality regulations provided that the applicant complies with the above plans and the following conditions.

1. Material used for construction is clean and free of matter that could cause pollution of the waters of the State.

2. All erosion control and sedimentation barriers are to be properly installed prior to the start of work. These measures are to remain in place and functional for the duration of the project.

3. Work within the marsh areas shall be limited to the time period between September 1 through March 30 of any year for which this Water Quality Certification is valid.

4. In-water work shall be limited to the time period between September 1 through January 31 of any year for which this Water Quality Certification is valid.

5. Should excess turbidity be observed within the water column entering the Narragansett Bay from the Allin's Cove restoration work site, a turbidity curtain or other appropriate technology may be required by the Department.

6. In accordance with the monitoring program contained within the application package, the Town of Barrington and the Rhode Island Coastal Resources Management Council (RICRMC) shall be responsible for directing the monitoring plan. The monitoring plan includes vegetation monitoring, pore-water salinity

monitoring and groundwater level monitoring at the three (3) established transects, for a minimum of three (3) years after completion of the restoration. Documentation from all monitoring events, as well as any actions taken resulting from monitoring events, shall be submitted to the WQC Program.

7. The Town of Barrington and the RICRMC shall be responsible for the long-term maintenance and monitoring of Phragmites growth, primarily through the use of mowing twice during the growing season. The cut sections of Phragmites shall be left on site or disposed at a licensed solid waste facility. Any application of herbicide (Rodeo) shall be limited to the time period between August 15 through October 15. All herbicide applications shall be performed by an appropriately licensed applicator.

8. Shellfish excavated from the area are not made available for any use, including human consumption or for bait.

9. Dredged material shall be disposed of on the designated area within the site limits, as shown on the above referenced plans. No other areas on or off site are authorized for dewatering, disposal, or stockpiling.

10. All construction sediments generated during construction must be disposed of properly. Construction sediment shall not be disposed of in or near state or federally regulated wetlands.

11. No sewage, refuse, or waste of any kind shall be discharged into waters of the State.

12. The Water Quality Certification does not remove your obligation to obtain any necessary permits from other local, state, or federal agencies.

13. This Water Quality Certificate shall expire three (3) years from the date of issuance if project construction is not completed in that time.

This is the State's Water Quality Certification. Violations of the terms and conditions of this WQC may result in withdrawal of this Certification. Such withdrawal may result in violation of the State's Water Quality regulations and appropriate enforcement action.

Sincerely,

Russell J. Chateauneuf, P.E., Chief
Groundwater/Wetlands Protection

RJC/nbp
G/W/C/Neal/State WQC/04-031 ACOE (Allin's Cove Restoration)-Barrington.doc

Cc: Barbara Blumeris - US ACOE
Grover Fugate - CRMC
H. Curtis Spalding - Save the Bay
Sandra Wyatt - Barrington Land Conservation Trust
Terry Simpson - OWR

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

COASTAL RESOURCES MANAGEMENT COUNCIL
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, R.I. 02879-1900

(401) 783-3370
FAX: (401) 783-3767

June 17, 2004

John R. Kennelly
Engineering/Planning
Department of the Army
New England District, Corps of Engineers
696 Virginia Road
Concord, MA 01742-2751

RE: CRMC File No. 2004-04-037

Dear Mr. Kennelly:

In accordance with Title 15 of the Code of Federal Regulations, Part 930, Subpart C (Consistency for Federal Activities) and review of plans entitled New England District's Coastal Zone Management Consistency Determination and Draft Plans and Specifications for the Allin's Cove Coastal Wetland Restoration Project, the Coastal Resources Management Council hereby concurs with the determination that the referenced project is consistent with the federally approved Rhode Island Coastal Resources Management Program and applicable regulations therein.

Please contact this office at (401) 783-3370 upon initiation of construction, or should you have any questions.

Sincerely,

Grover J. Fugate
Executive Director

cc: Barbara Blumeris, ACOE
Janet Freedman, CRMC
Megan Higgins, CRMC
Dan Goulet, CRMC
Tracy Silvia, CRMC

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SECTION 01356

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SECTION 01356

STORM WATER POLLUTION PREVENTION MEASURES

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 4439	(1997) Standard Terminology for Geosynthetics
ASTM D 4491	(1996) Water Permeability of Geotextiles by Permittivity
ASTM D 4533	(1991; R 1996) Trapezoid Tearing Strength of Geotextiles
ASTM D 4632	(1991; R 1996)) Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(1995) Determining Apparent Opening Size of a Geotextile
ASTM D 4873	(1995) Identification, Storage, and Handling of Geosynthetic Rolls

1.2 GENERAL

The Contractor shall implement the storm water pollution prevention measures specified in this section in a manner which will meet the requirements of Section 01355 ENVIRONMENTAL PROTECTION, and the requirements of the National Pollution Discharge Elimination System (NPDES) permit attached to that Section.

1.3 SUBMITTALS

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

SD-07 Certificates

Mill Certificate or Affidavit

Certificate attesting that the Contractor has met all specified

requirements.

1.4 EROSION AND SEDIMENT CONTROLS

The controls and measures required by the Contractor are described below.

1.4.1 Stabilization Practices

The stabilization practices to be implemented may include temporary seeding, mulching, geotextiles, erosion control matts, protection of trees, preservation of mature vegetation, etc. On his daily CQC Report, the Contractor shall record the dates when the major grading activities occur, (e.g., clearing and grubbing, excavation, embankment, and grading); when construction activities temporarily or permanently cease on a portion of the site; and when stabilization practices are initiated. Except as provided in paragraphs UNSUITABLE CONDITIONS and NO ACTIVITY FOR LESS THAN 21 DAYS, stabilization practices shall be initiated as soon as practicable, but no more than 14 days, in any portion of the site where construction activities have temporarily or permanently ceased.

1.4.1.1 Unsuitable Conditions

Where the initiation of stabilization measures by the fourteenth day after construction activity temporarily or permanently ceases is precluded by unsuitable conditions caused by the weather, stabilization practices shall be initiated as soon as practicable after conditions become suitable.

1.4.1.2 No Activity for Less Than 21 Days

Where construction activity will resume on a portion of the site within 21 days from when activities ceased (e.g., the total time period that construction activity is temporarily ceased is less than 21 days), then stabilization practices do not have to be initiated on that portion of the site by the fourteenth day after construction activity temporarily ceased.

1.4.2 Structural Practices

Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. Structural practices shall include the following devices. The location of installation are shown on the drawings.

1.4.2.1 Silt Fences

The Contractor shall provide silt fences as a temporary structural practice to minimize erosion and sediment runoff. Silt fences shall be properly installed to effectively retain sediment immediately after completing each phase of work where erosion would occur in the form of sheet and rill erosion (e.g. clearing and grubbing, excavation, embankment, and grading). Silt fences shall be installed in the locations indicated on the drawings. Final removal of silt fence barriers shall be upon approval by the Contracting Officer.

PART 2 PRODUCTS

2.1 COMPONENTS FOR SILT FENCES

2.1.1 Filter Fabric

The geotextile shall comply with the requirements of ASTM D 4439, and shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. The filament shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of ester, propylene, or amide, and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistance to deterioration due to ultraviolet and heat exposure. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0 to 120 degrees F. The filter fabric shall meet the following requirements:

FILTER FABRIC FOR SILT SCREEN FENCE

PHYSICAL PROPERTY	TEST PROCEDURE	STRENGTH REQUIREMENT
Grab Tensile	ASTM D 4632	100 lbs. min.
Elongation (%)		30 % max.
Trapezoid Tear	ASTM D 4533	55 lbs. min.
Permittivity	ASTM D 4491	0.2 sec-1
AOS (U.S. Std Sieve)	ASTM D 4751	20-100

2.1.2 Silt Fence Stakes and Posts

The Contractor may use either wooden stakes or steel posts for fence construction. Wooden stakes utilized for silt fence construction, shall have a minimum cross section of 2 inches by 2 inches when oak is used and 4 inches by 4 inches when pine is used, and shall have a minimum length of 5 feet. Steel posts (standard "U" or "T" section) utilized for silt fence construction, shall have a minimum weight of 1.33 pounds per linear foot and a minimum length of 5 feet.

2.1.3 Mill Certificate or Affidavit

A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified above. The mill certificate or affidavit shall specify the actual Minimum Average Roll Values and shall identify the fabric supplied by roll identification numbers. The Contractor shall submit a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the filter fabric.

2.1.4 Identification Storage and Handling

Filter fabric shall be identified, stored and handled in accordance with ASTM D 4873.

PART 3 EXECUTION

3.1 INSTALLATION OF SILT FENCES

Silt fences shall extend a minimum of 16 inches above the ground surface and shall not exceed 34 inches above the ground surface. Filter fabric shall be from a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together at a support post, with a minimum 6 inch overlap, and securely sealed. A trench shall be excavated approximately 4 inches wide and 4 inches deep on the upslope side of the location of the silt fence. The 4-inch by 4-inch trench shall be backfilled and the soil compacted over the filter fabric. Silt fences shall be removed upon approval by the Contracting Officer.

3.2 MAINTENANCE

The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures.

3.2.1 Silt Fence Maintenance

Silt fences shall be inspected in accordance with paragraph INSPECTIONS. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any sediment deposits shall be shaped to the indicated grade.

3.3 INSPECTIONS

3.3.1 General

The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and area where vehicles exit the site at least once every seven (7) calendar days and within 24 hours of the end of any storm that produces 0.5 inches or more rainfall at the site. Where sites have been finally stabilized, such inspection shall be conducted at least once every month.

3.3.2 Inspections Details

Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the Storm Water Pollution Prevention Plan shall be observed to ensure that they are operating correctly. Discharge locations or points shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.

3.3.3 Inspection Reports

For each inspection conducted, the Contractor shall prepare a report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the Storm Water Pollution Prevention Plan, maintenance performed, and actions taken. The report shall be furnished to the Contracting Officer within 24 hours of the inspection as a part of the Contractor's daily CQC REPORT. A copy of the inspection report shall be maintained on the job site.

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SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

0.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number.

ASME INTERNATIONAL (ASME)
Three Park Avenue
New York, NY 10016-5990
Ph: 212-591-7722
Fax: 212-591-7674
Internet: http://www.asme.org

ASTM INTERNATIONAL (ASTM)

100 Barr Harbor Drive, PO Box C700
West Conshohocken, PA 19428-2959
Ph: 610-832-9500
Fax: 610-832-9555
Internet: http://www.astm.org

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101
Ph: 617-770-3000
Fax: 617-770-0700
Internet: http://www.nfpa.org

U.S. ARMY CORPS OF ENGINEERS (USACE)
Order CRD-C DOCUMENTS from:
U.S. Army Engineer Waterways Experiment Station

ATTN: Technical Report Distribution Section, Services
Branch, TIC
3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2664
Fax: 601-634-2388
Internet: http://www.wes.army.mil/SL/MTC/handbook/handbook.htm

Order Other Documents from:
USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081
Fax: 301-394-0084
Internet: http://www.usace.army.mil/publications
or http://www.hnd.usace.army.mil/techinfo/index.htm

U.S. DEPARTMENT OF AGRICULTURE (USDA)

Order AMS Publications from:
AGRICULTURAL MARKETING SERVICE (AMS)
Seed Regulatory and Testing Branch
USDA, AMS, LS Div.
Room 209, Bldg. 306, BARC-East
Beltsville, MD 20705-2325
Ph: 301-504-9430
Fax: 301-504-8098
Internet: http://www.ams.usda.gov/lsg/seed.htm
e-mail: jeri.irwin@usda.gov

Order Other Publications from:
U.S. Department of Agriculture
14th and Independence Ave., SW, Room 4028-S
Washington, DC 20250
Ph: 202-720-2791
Fax: 202-720-2166
Internet: http://www.usda.gov

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

700 Pennsylvania Avenue, N.W.
Washington, D.C. 20408
Phone: 866-325-7208
Internet: http://www.archives.gov

Order documents from:
Superintendent of Documents
U.S.Government Printing Office
732 North Capitol Street, NW
Washington, DC 20401
Mailstop: SDE
Ph: 866-512-1800 or 202-512-1800
Fax: 202-512-2250
Internet: http://www.gpo.gov
E-mail: gpoaccess@gpo.gov

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SECTION 01451

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SECTION 01451

CONTRACTOR QUALITY CONTROL

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 within the text by basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D 3740	(2001) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329	(2000b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 PAYMENT

Separate payment will not 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 REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "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 offsite, and shall be keyed to the proposed construction sequence. The site 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 the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for all construction and construction related activities at the site.

3.2 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than 15 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 30 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.

3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, 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 the project superintendent.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

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 shall also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite 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 approved by the Contracting Officer shall be used.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall 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, has separate control requirements, and may be identified by different trades or disciplines, or it may 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 are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.2 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.

3.2.3 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 Preconstruction 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 5 calendar days prior to the Coordination Meeting. 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 offsite 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 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure safety and contract compliance. The Safety and Health Manager shall receive direction and authority from the CQC System Manager and shall serve as a member of the CQC staff. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The

Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of all letters, material submittals, shop drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a construction person with a minimum of 3 years in related work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager for the following areas: civil. This individual shall be directly employed by the prime Contractor and may not be employed by a supplier or sub-contractor on this project; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. This individual may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan.

Experience Matrix

Area	Qualifications
Civil	Graduate Civil Engineer with 2 years experience in the type of work being performed on this project or technician with 5 yrs related experience

3.4.4 Additional Requirement

In addition to the above experience and education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at New England District Office, 696 Virginia Road, Concord, MA.

3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies 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 the construction 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 work site. This phase shall include:

a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.

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.

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 24 hours in advance of beginning the preparatory control phase. 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 instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of work 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 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location 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 nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features 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.

3.7 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 Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. 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, shall 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 shall 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 offsite or commercial test facility shall 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 General

Laboratories utilized by the Contractor for testing soils, aggregates, rock, concrete, and asphalt shall be inspected and validated by the Corps. The Contractor shall procure the services of a Corps validated commercial laboratory or submit the Contractor's proposed laboratory for Corps approval and validation in accordance with section "Submittals". A list of Corps validated testing laboratories and the tests for which they are approved can be viewed at the USACE Material Testing Center (MTC) web site at: http://www.wes.army.mil/SL/MTC/mtc.htm.

3.7.2.2 Validation and Capability Check

If the Contractor wishes to use a testing laboratory that is not currently validated, the proposed laboratory will be inspected by the MTC at the Government's expense. MTC lead times to complete the inspection and validation process can range from 60-90 days or more depending on the situation. The Contractor shall be advised that project delays resulting from the inspection process shall not be allowed to delay the construction schedule. The Government reserves the right to check laboratory equipment 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, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

3.7.2.3 Validation and Capability Recheck

If the selected laboratory fails the MTC capability check, the Contractor will be charged a fee to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Charges will be based on the price schedule located at http://www.wes.army.mil/SL/MTC/mtc.htm. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials shall 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 District Office at 696 Virginia Road, Concord, Massachusetts, 01742.

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 end of the work, or any increment of the work established by a time stated in the SPECIAL CONTRACT REQUIREMENTS Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies 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 Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may 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 before notifying 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 shall be accomplished within the time slated for completion of the entire work or any particular increment of the work 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 shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands 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 shall 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 unacceptable, 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 contract clause titled "Inspection of Construction".

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 shall be identified (Preparatory, Initial, Follow-up). List of 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 and deliverables reviewed, with contract reference, by whom, and action taken.

g. Offsite 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. 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 48 hours after the date 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 7 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.

3.10 SAMPLE FORMS

Sample forms enclosed at the end of this section.

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.

Contractor/Sub. Name _____

DAILY CONSTRUCTION QUALITY CONTROL REPORT

Date:_____
Day:_____

Contract No:_____

Description and Location of Work:_____

_____

Tide:(high) (low) (high) (low) Sea Condition:

Weather:Temp: Cloud condition Wind speed/direction

Environmental Protection:

Management Area of responsibility
a. Consultant - _____
b. Contractor - _____
c. Subcontractor - _____
d. Purveyor - _____
e. Supplier - _____
f. Technical Support - _____

1. WORK PERFORMED TODAY (Indicate location and description of work performed. Refer to work performed by individuals listed by letter above.)_____
_____
_____
_____
_____
_____
_____

2. Results of Surveillance (Include satisfactory work completed, or deficiencies with action to be taken.)

a. Preparatory Inspection:_____
_____
_____
_____

b. Initial Inspection: _____
_____
_____
_____

c. Follow-up Inspection:_____
_____
_____
_____

3. Tests Required by Specifications, Performed, and the Results:

a. _____
b. _____

c. _____

4. Verbal Instruction Received; (List any instructions given by Government personnel on construction deficiencies, retesting required, etc. and action.)

_____
_____
_____
_____

5. Remarks: (Cover all conflicts in plans, specifications, or instructions.)

_____
_____
_____
_____

6. Safety Inspection (Report violations, corrective instruction given; and corrective actions taken.)

_____
_____
_____
_____

7. Quantities Completed;

Item #	Item #
Quantity:	Quantity:
Item #	Item #
Item #	Quantity:

8. Time

#	LABOR	HOURS	EQUIPMENT

9. Additional Comments:

_____
_____
_____
_____
_____
_____

Contractor's Verification: The above report is complete and correct and all material and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications except as noted above.

_____

Contractor Quality Control Representative

-- End of Section --

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SECTION 01500

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1.9 PROTECTION AND MAINTENANCE OF TRAFFIC
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1.13 CLEANING DURING CONSTRUCTION
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PART 3 EXECUTION (Not Used)

-- End of Section Table of Contents --

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUBMITTALS

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

SD-01 Preconstruction Submittals

Site Plan; G, RO.

Sketch of the proposed location and dimensions of any area to be used by the Contractor for storage and staging, the number of trailers to be used, avenues of ingress/egress to the areas and details of improvements.

SD-02 Shop Drawings

Temporary Electrical System; G, RO.

Sketch of the proposed temporary electrical system.

1.2 REFERENCES

CORPS OF ENGINEERS (CE)

CE EM 385-1-1	(2003) Safety and Health Requirements Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70	(2000) National Electrical Code

1.3 SITE PLAN

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any storage and staging area to be and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the areas and details of the fence installation, if used. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified.

1.4 EMPLOYEE PARKING

Contractor employees shall park privately owned vehicles in an area approved by the Contracting Officer.

1.5 AVAILABILITY OF UTILITIES

Provide service required for construction operations. All water and electricity that may be required in the prosecution of the work shall be furnished by the Contractor at his own expense. There will be no Government furnished water or electricity at the project site.

1.5.1 Temporary Electrical System

All required temporary electrical equipment and lines shall be furnished, installed, connected, and maintained by the Contractor according to the CE EM 385-1-1, and shall be removed prior to final acceptance of the work. Temporary wiring shall conform to Article 305 of NFPA 70. Materials and equipment need not be new, but must be in good repair and serviceable condition. Prior to being energized, the systems and devices will be checked and approved for polarity, continuity of ground, and resistance to ground. Periodic inspections of systems and devices will be made by the Contractor at intervals not to exceed one (1) week.

1.6 SANITATION

Adequate sanitary conveniences of a type approved for the use of persons employed on the work shall be provided, properly secluded from public observation, and maintained by the Contractor in such a manner as required or approved by the Contracting Officer. These conveniences shall be maintained at all times without nuisance. Upon completion of the work, the conveniences shall be removed by the Contractor from the premises, leaving the premises clean and free from nuisance.

1.7 TELEPHONE SERVICE

Provide telephone service to field offices. Provide and maintain a telephone or equal means of communication which will be in an easily accessible location at each of the large construction areas on the project. Such means of communication shall be accessible during all work hours.

1.8 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN

1.8.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

1.8.2 Project and Safety Signs

The requirements for the signs and their content shall be as shown on the drawings attached at the end of this section. The signs shall be erected within 10 calendar days after commencement of work at the site. The Contracting Officer will determine the location for erection of the signs. The data required by the safety sign shall be corrected daily, with light colored metallic or non-metallic numerals. Upon completion of the project,

the signs shall be removed from the site.

1.9 PROTECTION AND MAINTENANCE OF TRAFFIC

The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.9.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.9.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.10 CONTRACTOR'S TEMPORARY FACILITIES

1.10.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office facilities within the construction area at the designated site.

1.10.2 Storage and Staging Areas

Area is available for use by the Contractor, for work, storage of equipment, materials and trailers during the life of this contract. A site is shown on the drawings. The Contractor shall confine his storage and staging areas to the limits as designated or approved by the Contracting Officer and shall be responsible for the security of the areas. Upon completion of the contract, the Contractor shall remove all equipment and materials, and restore the site to its original condition as approved by the Contracting Officer at no additional cost to the Government.

1.10.3 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in

a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the military property.

1.10.4 Maintenance of Storage Area

Fencing, if used or required, shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion.

1.10.5 Security Provisions

The Contractor shall be responsible for the security of its own equipment and materials.

1.11 GOVERNMENT FIELD OFFICE

1.11.1 Resident Engineer's Office

The Contractor shall provide the Government Resident Engineer with an office, approximately 200 square feet in floor area, located where directed and providing space heat, electric light and power, and toilet facilities consisting of one lavatory and one water closet complete with connections to water and sewer mains. A portable toilet may be substituted for the water closet. Provide three telephone lines for telephone, fax, and computer. A mail slot in the door or a lockable mail box mounted on the surface of the door shall be provided. At completion of the project, the office shall remain the property of the Contractor and shall be removed from the site. Utilities shall be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer.

1.11.2 Trailer-Type Mobile Office

The Contractor may, at its option, furnish and maintain a trailer-type mobile office acceptable to the Contracting Officer and providing as a minimum the facilities specified above. The trailer shall be securely anchored to the ground at all four corners to guard against movement during high winds.

1.12 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the locations indicated on the drawings. The safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 42 inches high, supported and tightly secured to steel posts located on maximum 10 foot centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

1.12.1 Marsh Land Protection Fencing

As soon as practicable, but not later than 15 days after the date

established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing surrounding the location indicated on the drawings as "EXISTING MARSH LAND TO BE PROTECTED."

1.13 CLEANING DURING CONSTRUCTION

1.13.1 Daily Cleaning

Execute daily cleaning to keep the work, the site, and adjacent properties free from accumulation of waste materials, rubbish, and windblown debris, resulting from construction operations.

1.13.2 On-Site Container

Provide on-site containers for the collection of waste materials, debris, and rubbish.

1.13.3 Removal of Waste

Remove waste materials, debris, and rubbish from the site periodically and dispose of off Government property in accordance with applicable laws and regulations.

1.13.4 Burning

No burning of brush or debris will be permitted at the site.

1.14 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

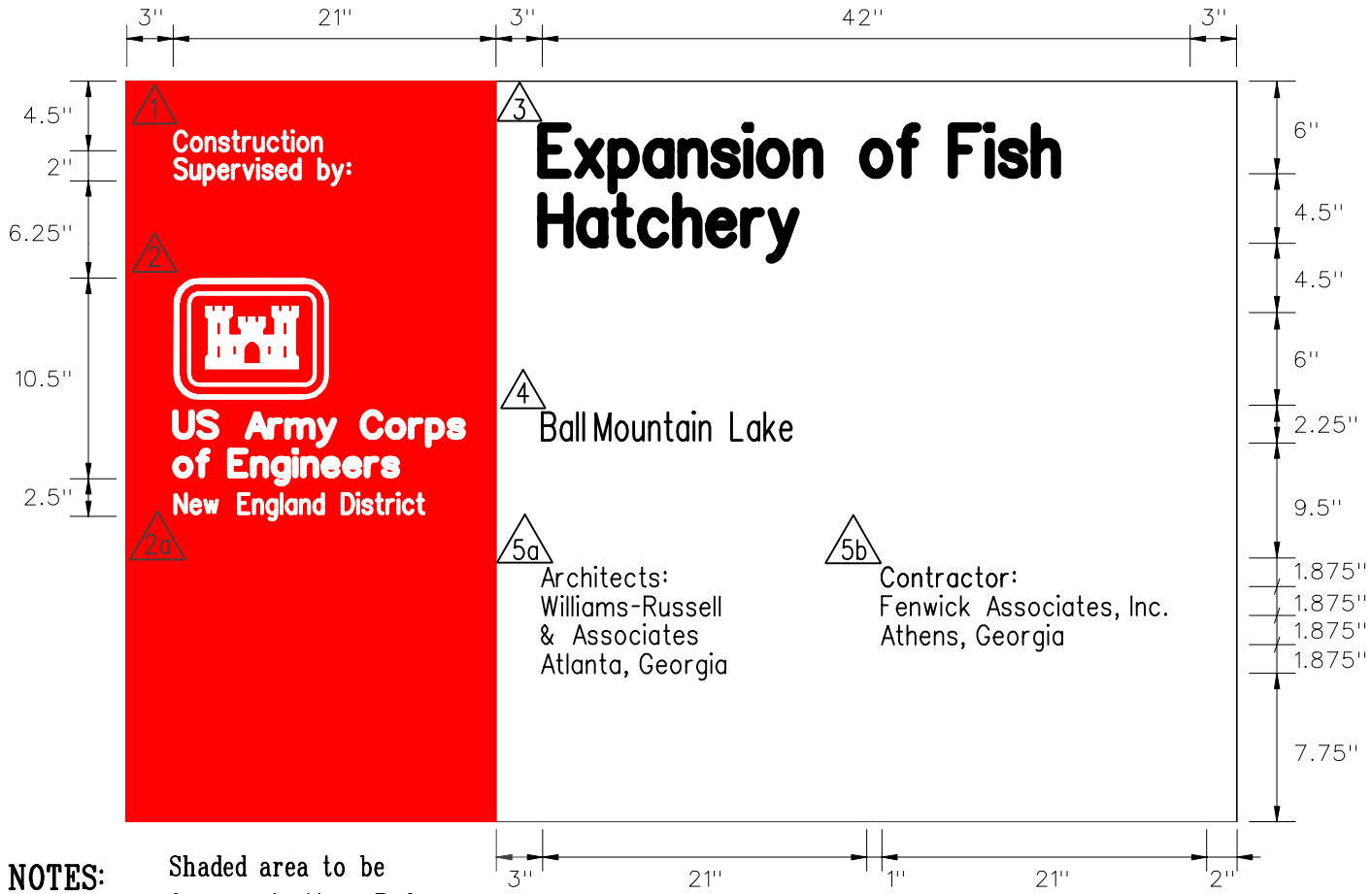
1.15 RESTORATION OF STORAGE AREA AND ACCESS AREAS

Remove temporary materials, equipment, services, and construction prior to completion of work. Clean and repair damage caused by installation or use of temporary facilities. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-- End of Section --



NOTES:

LEGEND GROUP

Shaded area to be Communications Red

DESCRIPTION

1 One-to two-line description of Corps relationship to project. Color: White, Typeface: 1.25" Helvetica Regular, Maximum line length: 19".

2 Division or District Name (optional). Placed below 10.5" reverse Signature (6" Castle). Color: White, Typeface: 1.25" Helvetica Regular.

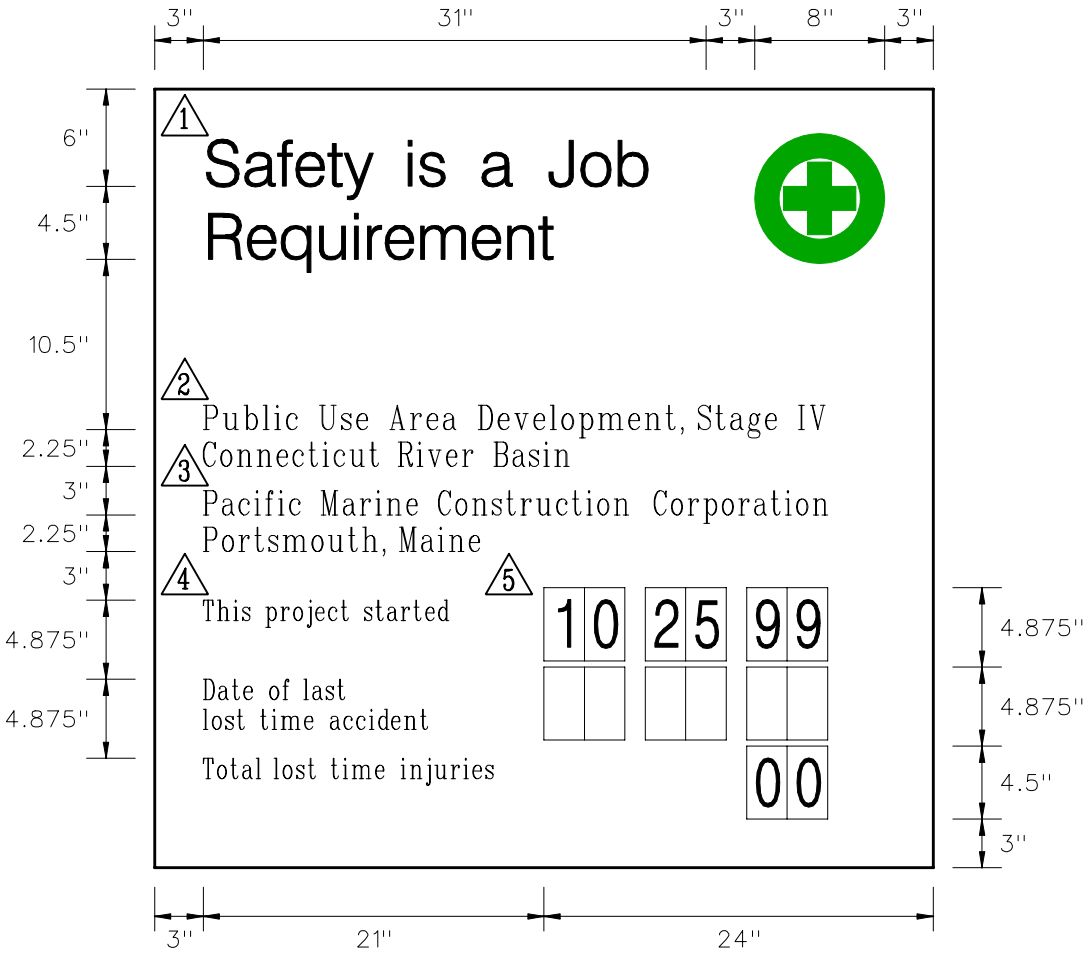
2a One-to three-line identification of Military or Civil Works sponor (optional). Place below Corps Signature to crossalign with Group 5a-b. Color: White, Typeface: 1.25" Helvetica Regular, Maximum line length: 19".

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".

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".

5a 5b 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".

DEPARTMENT OF THE ARMY NEW ENGLAND DISTRICT CORPS OF ENGINEERS CONCORD, MASSACHUSETTS	STANDARD CONSTRUCTION DETAIL PROJECT IDENTIFICATION SIGN CIVIL WORKS PROJECT	1 / 1



NOTES: LEGEND GROUP

DESCRIPTION

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.

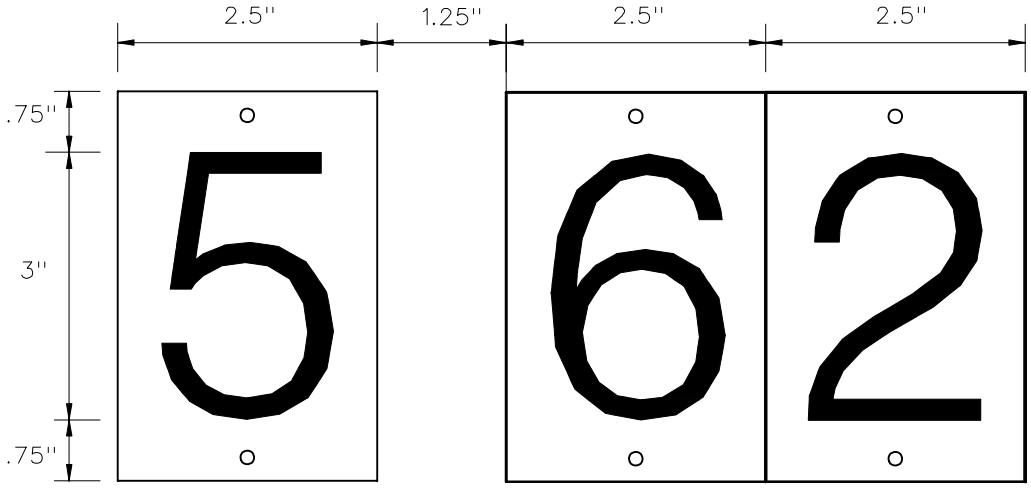
2. One-to two-line project title legend describes the work being done under this contract and name of host project. Color: Black, Typeface: 1.5" Helvetica Regular, Maximum line length: 42".

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

4. Standard safety record captions as shown. Color: Black, Typeface: 1.25" Helvetica Regular.

5. 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"x4.5".

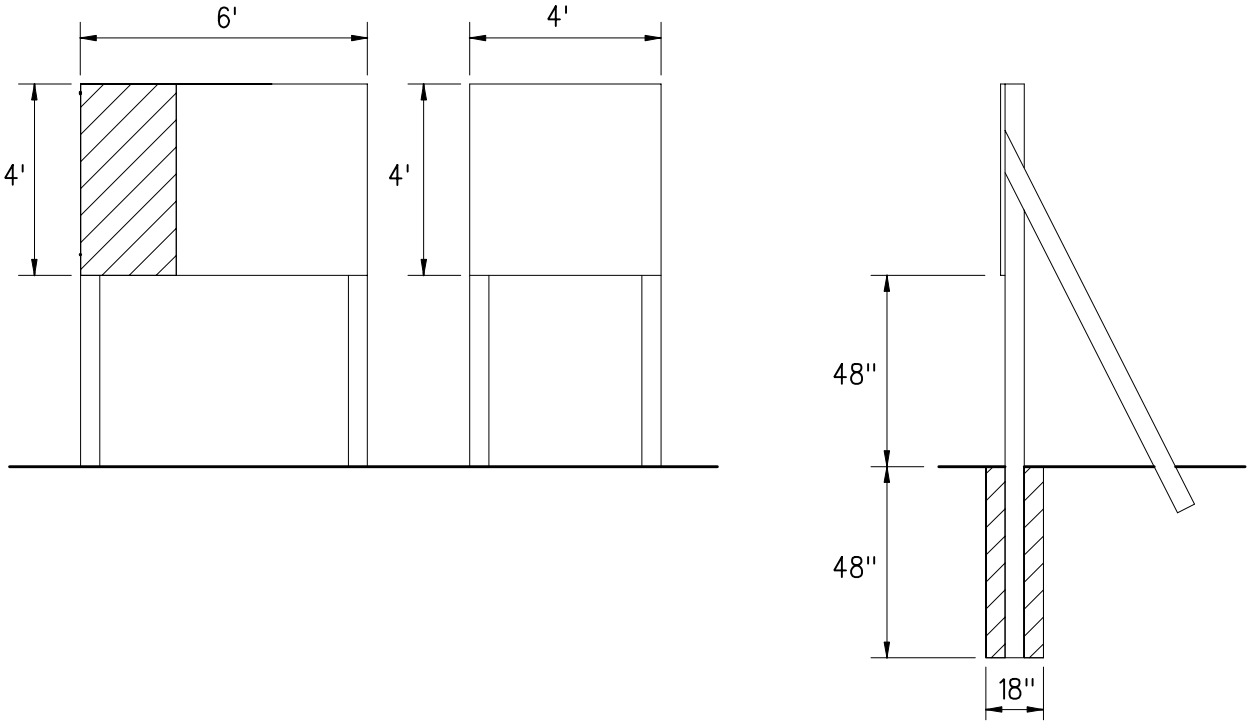
DEPARTMENT OF THE ARMY NEW ENGLAND DISTRICT CORPS OF ENGINEERS CONCORD, MASSACHUSETTS	STANDARD CONSTRUCTION DETAIL SAFETY PERFORMANCE SIGN DETAIL	1/2



NOTES:

1. Replace numbers are to be mounted on white .OLD aluminum plates and serew-mounted to background of Safety Performance Sign.

DEPARTMENT OF THE ARMY NEW ENGLAND DISTRICT CORPS OF ENGINEERS CONCORD, MASSACHUSETTS	STANDARD CONSTRUCTION DETAIL INDIVIDUAL METAL PLATES DETAIL	2/2



NOTES:

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

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

3 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 pages 16.2-3.

4 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 reprouduction artwork for the signature is provided on page 4.8 (photographically enlarge from 6.875" to 10.5").

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

6 Apply graphic panel to prepared HDO plywood panel following manufacturers' instructions.

7 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").

8 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.

DEPARTMENT OF THE ARMY NEW ENGLAND DISTRICT CORPS OF ENGINEERS CONCORD, MASSACHUSETTS	STANDARD CONSTRUCTION DETAIL **FABRICATION AND MOUNTING GUIDELINES** MILITARY PROJECT	1 / 1

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SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

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 within the text by the basic designation only.

ASME INTERNATIONAL (ASME)

ASME B30.5	(2000) Mobile and Locomotive Cranes
ASME B30.8	(2000) Floating Cranes and Floating Derricks
ASME B30.22	(2000) Articulating Boom Cranes

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR 1910.94	Ventilation
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1926.65	Hazardous Waste Operations and Emergency Response
29 CFR 1926.500	Fall Protection

U. S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) Safety and Health Requirements Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(1998) Portable Fire Extinguishers
NFPA 241	(2000) Safeguarding Construction, Alteration, and Demolition Operations

1.2 SUBMITTALS

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

01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, RO

Activity Hazard Analysis (AHA); G, RO

SD-06 Test Reports

Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Accident Reports

Monthly Exposure Reports

Regulatory Citations and Violations

Crane Reports

Certificate of Compliance (Crane)

1.3 DEFINITIONS

a. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

b. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

c. Multi-Employer Work Site (MEWS). A multi-employer work site, as defined by OSHA, is one in which many employers occupy the same site. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors.

d. Operating Envelope. The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).

e. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

(1) Death, regardless of the time between the injury and death, or the length of the illness;

(2) Days away from work;

(3) Restricted work;

(4) Transfer to another job;

(5) Medical treatment beyond first aid;

(6) Loss of consciousness; or

(7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

f. Site Safety and Health Officer (SSHO). The superintendent or other qualified or competent person who is responsible for the on-site safety and health required for the project. The Contractor quality control (QC) person can be the SSHO on this project.

g. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; and collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.).

1.4 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and federal, state, and local, laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.5 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The SSHO shall meet the following requirements:

Level 1:

Worked on similar projects.
10-hour OSHA construction safety class or equivalent within last 3 years.
Competent person training as needed.

1.6.1.2 Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Appendix G.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors' daily quality control report.

b. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.

c. Maintain applicable safety reference material on the job site.

d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.

e. Implement and enforce accepted APPS and AHAs.

f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.

g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

a. The Contractor will be informed, in writing, of the date of the preconstruction conference. The purpose of the preconstruction conference is for the Contractor and the Contracting Officer's representatives to become acquainted and explain the functions and operating procedures of their respective organizations and to reach mutual understanding relative to the administration of the overall project's APP before the initiation of work.

b. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the

development of the APP (including the AHAs and special plans, program and procedures associated with it).

c. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated activity hazard analyses (AHAs) that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

d. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

1.6.3.2 Weekly Safety Meetings

Conduct weekly safety meetings at the project site for all employees. The Contracting Officer will be informed of the meeting in advance and be allowed attendance. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.6.3.3 Work Phase Meetings

The appropriate AHA shall be reviewed and attendance documented by the Contractor at the preparatory, initial, and follow-up phases of quality control inspection. The analysis should be used during daily inspections to ensure the implementation and effectiveness of safety and health controls.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected employees to include a review of the AHA to be implemented.

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan". Where

a paragraph or subparagraph element is not applicable to the work to be performed indicate "Not Applicable" next to the heading. Specific requirements for some of the APP elements are described below. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer and any designated CSP and/or CIH.

Submit the APP to the Contracting Officer 10 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. The Contracting Officer reviews and comments on the Contractor's submitted APP and accepts it when it meets the requirements of the contract provisions.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any unforeseen hazard become evident during the performance of work, the project superintendent shall inform the Contracting Officer, both verbally and in writing, for resolution as soon as possible. In the interim, all necessary action shall be taken by the Contractor to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the resident engineer's office and at the job site.
The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be used. The duties of each position shall be specified.

b. Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; fall protection; hazardous energy; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.

c. Alcohol and Drug Abuse Plan

(1) Describe plan for random checks and testing with pre-employment screening in accordance with the DFAR Clause subpart 252.223-7004, "Drug Free Work Force."

(2) Description of the on-site prevention program

d. Excavation Plan. The safety and health aspects prepared in accordance with Section 02300 EARTHWORK.

d. Training Records and Requirements. List of mandatory training and certifications which are applicable to this project (e.g. explosive actuated tools, fall protection, crane operation, vehicle operator, forklift operators, personal protective equipment); list of requirements for periodic retraining/certification; outline requirements for supervisory and employee safety meetings.

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1. Submit the AHA for review at least 10 calendar days prior to the start of each phase. Format subsequent AHA as amendments to the APP. An AHA will be developed by the Contractor for every operation involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform work. The analysis must identify and evaluate hazards and outline the proposed methods and techniques for the safe completion of each phase of work. At a minimum, define activity being performed, sequence of work, specific safety and health hazards anticipated, control measures (to include personal protective equipment) to eliminate or reduce each hazard to acceptable levels, equipment to be used, inspection requirements, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall arrest systems. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include requirements for safeguarding excavations. An activity requiring an AHA shall not proceed until the AHA has been accepted by the Contracting Officer's representative and a meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activity, including on-site Government representatives. The Contractor shall document meeting attendance at the preparatory, initial, and follow-up phases of quality control inspection. The AHA shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when

procedures, scheduling, or hazards change.

Activity hazard analyses shall be updated as necessary to provide an effective response to changing work conditions and activities. The on-site superintendent, site safety and health officer and competent persons used to develop the AHAs, including updates, shall sign and date the AHAs before they are implemented.

1.10 DISPLAY OF SAFETY INFORMATION

Within 10 calendar days after commencement of work, erect a safety bulletin board at the job site. The following information shall be displayed on the safety bulletin board in clear view of the on-site construction personnel, maintained current, and protected against the elements and unauthorized removal:

a. Map denoting the route to the nearest emergency care facility.

b. Emergency phone numbers.

c. Copy of the most up-to-date APP.

d. AHA(s).

e. OSHA 300A Form.

f. A sign indicating the number of hours worked since last lost workday accident.

g. OSHA Safety and Health Protection-On-The-Job Poster.

h. Safety and Health Warning Posters.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 REPORTS

1.13.1 Accident Reports

a. For recordable injuries and illnesses, and property damage accidents resulting in at least $2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 1 calendar day of the accident. The Contracting Officer will provide copies of any required or special forms.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than

four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than $2,000, or any weight handling equipment accident involving a overturned crane, collapsed boom, or any other major damage to the crane or adjacent property. Information shall include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.13.4 Regulatory Citations and Violations

Contact the Contracting Officer immediately of any OSHA or other regulatory agency inspection or visit, and provide the Contracting Officer with a copy of each citation, report, and contractor response. Correct violations and citations promptly and provide written corrective actions to the Contracting Officer.

1.13.5 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

The Contractor shall comply with USACE EM 385-1-1, NFPA 241, the APP, the AHA, and other related submittals and activity fire and safety regulations.

3.2 EQUIPMENT

3.2.1 Material Handling Equipment

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.

c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

3.2.2 Weight Handling Equipment

b. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.

c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturer's recommended procedures.

d. The Contractor shall comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes and ASME B30.8 for floating cranes and floating derricks.

e. The presence of Government personnel does not relieve the Contractor of an obligation to comply with all applicable safety regulations. The Government will investigate all complaints of unsafe or unhealthful working conditions received in writing from contractor employees, federal civilian employees, or military personnel.

f. Each load shall be rigged/attached independently to the hook/master-link in such a fashion that the load cannot slide or otherwise become detached. Christmas-tree lifting (multiple rigged materials) is not allowed.

g. A fire extinguisher having a minimum rating of 10BC and a minimum nominal capacity of 5lb of extinguishing agent shall be available at all operator stations or crane cabs. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.

h. All employees shall be kept clear of loads about to be lifted and of suspended loads.

i. A weight handling equipment operator shall not leave his position at the controls while a load is suspended.

j. Only Contractor crane operators who have met the requirements of 29 CFR 1910.94, 29 CFR 1910.120, 29 CFR 1926.65, 29 CFR 1926.500, USACE EM 385-1-1, ASME B30.5, and ASME B30.22 and other local and state requirements shall be authorized to operate the crane.

k. The Contractor shall use cribbing when performing lifts on outriggers.

l. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

m. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

n. A substantial and durable rating chart containing legible letters and figures shall be provided with each crane and securely mounted onto the crane cab in a location allowing easy reading by the operator while seated in the control station.

o. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

p. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

q. The Contractor shall certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

3.2.3 Equipment and Mechanized Equipment

a. Equipment shall be operated by designated qualified operators. Proof of qualifications shall be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment shall be on site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.

c. Equipment and mechanized equipment shall be inspected in accordance with manufacturer's recommendations for safe operation by a competent person prior to being placed into use.

d. Daily checks or tests shall be conducted and documented on equipment and mechanized equipment by designated competent persons.

3.3 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly.

3.4 HOUSEKEEPING

3.4.1 Clean-Up

All debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

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PART 3 EXECUTION (Not Used)

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SECTION 01720

FIELD ENGINEERING

PART 1 GENERAL

1.1 SUMMARY

1.1.1 Engineering Services

The Contractor shall provide and pay for field engineering services required for the project, including the following:

a. Survey work required in execution of the project and for determining quantities of work performed for submission of progress payment requisitions.

b. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.

1.1.2 Existing Control Points

The Contracting Officer's Representative will identify existing control points indicated on the drawings, as required.

1.2 SUBMITTALS

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

SD-05 Design Data

Quantity Surveys

Submit originals of all field notes and all other records relating to the quantity surveys.

SD-07 Certificates

Qualifications

Name and address of the Surveyor and proof of registration.

1.3 QUALIFICATIONS

1.3.1 Registered Land Surveyor

Registered land surveyor, licensed in the State in which the project is located, and approved by the Contracting Officer.

1.4 LAYOUT OF WORK

a. The Government has established bench marks and horizontal control points at the site of the work. These are described and indicated on contract drawings.

b. From these control points the Contractor shall lay out the work by establishing all lines and grades at the site necessary to control the work and shall be responsible for all measurements that may be required for the execution of the work to the location and limit marks prescribed in the specifications or on the contract drawings. The Contractor shall establish and maintain at the site of the work such stakes and markers as are necessary for control and guidance of his construction operations. All survey data shall be recorded in accordance with standard and approved methods. All field notes, sketches, recordings and computations made by the Contractor in establishing above horizontal and vertical control points shall be available at all times during the progress of the work for ready examination by the Contracting Officer or his duly authorized representative.

c. The Contractor shall furnish, at his own expense, all such stakes, spikes, steel pins, templates, platforms, equipment, tools and material and all labor as may be required in laying out any part of the work from the control points established by the Government. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other markers established by him until authorized to remove them. If any of the control points established at the site by the Government are destroyed by or through the negligence of the Contractor prior to their authorized removal, they may be replaced by the Contracting Officer, and the expense of replacement will be deducted from any amount due or which may become due the Contractor. The Contracting Officer may require that work be suspended at any time when horizontal and vertical control points established at the site by the Contractor are not reasonably adequate to permit checking the work. Such suspension will be withdrawn upon proper replacement of the control points.

d. During the layout of the work, the Contractor shall notify the Government of any inconsistencies or conflicts which arise due to the supplied control points or features of the project.

1.5 QUANTITY SURVEYS

(a) 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 in place.

(b) The Contractor shall conduct the original and final surveys and surveys for any periods for which progress payments are requested. All these surveys shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance. The Government shall make such computations as are necessary to determine the quantities of work performed or finally in place. The Contractor shall make the computations based on the surveys for any periods for which progress payments are requested.

(c) Promptly upon completing a survey, the Contractor shall furnish the

originals of all field notes and all other records relating to the survey or to the layout of the work 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 material furnished to the Contracting Officer.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

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SECTION 01783

CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 SUBMITTALS

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

SD-02 Shop Drawings

As-Built Drawings; G, DO

Drawings showing final as-built conditions of the project. The manually prepared drawings shall consist 2 sets of the approved marked working as-built prints.

SD-03 Product Data

As-Built Record of Materials

Two copies of the record listing the as-built materials incorporated into the construction of the project.

1.2 PROJECT RECORD DOCUMENTS

1.2.1 As-Built Drawings

This paragraph covers as-built drawings complete, as a requirement of the contract. The term "working as-built drawings" refers to contract drawings which are revised to be used for "final as-built drawings."

1.2.1.1 Government Furnished Materials

One set of mylar drawings revised to reflect all bid amendments will be provided by the Government at the preconstruction conference.

1.2.1.2 Working As-Built Drawings

The Contractor shall revise 2 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. 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 accurately and neatly recorded as they occur by means of details and notes. The working as-built marked prints will be reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to

maintain the working as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working as-built drawings shall show, but shall not be limited to, the following information:

a. The location and dimensions of any changes within the structure.

b. Correct grade, elevations, cross section, or alignment of earthwork and structures if any changes were made from contract plans.

c. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, foundations, etc.

d. Changes or modifications which result from the final inspection.

e. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

f. Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures.

(1) Directions in the modification for posting descriptive changes shall be followed.

(2) A Modification Circle shall be placed at the location of each deletion.

(3) For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.

(4) For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).

(5) For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.

(6) For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.

(7) The Modification Circle size shall be 1/2 inch diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.2.1.3 Drawing Preparation

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by marking the working prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall

be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.2.1.4 Final As-Built Drawings

Only personnel proficient in the preparation of manually prepared drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be neat, clean and legible, shall be done to the same level of detail, and shall match the adjacent existing line work, and lettering being annotated in type, density, size and style. The Contracting Officer will review as-built drawings for accuracy and conformance to the above specified drafting standards. Corrections, changes, additions, and deletions required shall meet these standards. The title block to be used for any new as-built drawings shall be similar to that used on the original drawings. Colored pens or pencils shall be used to make changes and additions on the drawings as follows:

Red pen or pencil shall be employed to indicate added or corrected work or information.

Green pen or pencil shall be used to show the deleted or incorrectly depicted work or information.

Blue or black pen or pencil shall be used to show information not to be recorded on the drawings but included on the marked-up prints for explanatory or clarification purposes for the benefit of the Contracting Officer.

a. When final revisions have been completed, each drawing shall be lettered or stamped with the words "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 3/16 inch high. Original contract drawings shall be marked either "As-Built" drawings denoting no revisions on the sheet or "Revised As-Built" denoting one or more revisions All drawings shall be dated in the revision block.

b. Within 10 days after Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final as-built drawings for that phase of work and submit two sets of these marked drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 7 days the Contractor shall revise the drawings accordingly at no additional cost and submit one set of final as-built drawings for the completed phase of work to the Government. Within 10 days of substantial completion of all phases of work, the Contractor shall submit the final as-built drawing package for the entire project. The submittal shall consist of two sets of the completed final as-built drawings. The drawings shall be complete in all details. The drawings will become the property of the Government upon final approval. Failure to submit final as-built marked drawings, as required herein, will be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.2.1.5 Payment

No separate payment will be made for as-built drawings required under this contract, and all costs accrued in connection with such drawings shall be

considered a subsidiary obligation of the Contractor.

1.2.2 As-Built Record of Materials

The Contractor shall furnish one copy of preliminary record of materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 2 days after final inspection with Government comments. Two sets of final record of materials shall be submitted 10 days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings.

1.2.3 Final Approved Shop Drawings

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed project.

1.3 FINAL CLEANING

The premises shall be left clean of debris. Landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

PART 2 PRODUCTS (NOT USED)

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SECTION 02231

CLEARING AND GRUBBING

PART 1 GENERAL

1.1 SUMMARY

Except at the area of the shoulder repair at Byway Road, there are no large trees to be cleared and grubbed. The vegatation to be cleared consists of mostly of bush, shrubs, phragmites, and marsh grass. Total area is approximately 8 acres.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

3.1.2 Trees, Shrubs, and Existing Facilities

Trees and vegetation to be left standing shall be protected from damage incident to clearing, grubbing, and construction operations by the erection of barriers or by such other means as the circumstances require.

3.2 CLEARING

Clearing shall consist of the felling, trimming, and cutting of trees into sections and the satisfactory disposal of the trees and other vegetation designated for removal, including downed timber, snags, brush, and rubbish occurring within the areas to be cleared. Clearing shall also include the removal and disposal of structures that obtrude, encroach upon, or otherwise obstruct the work, including the wooden observation tower indicated on the drawings. Trees, stumps, roots, brush, and other vegetation in areas to be cleared shall be cut off flush with or below the original ground surface, except such trees and vegetation as may be indicated or directed to be left standing. Trees designated to be left standing within the cleared areas shall be trimmed of dead branches 1-1/2 inches or more in diameter and shall be trimmed of all branches the heights indicated or directed. Limbs and branches to be trimmed shall be neatly cut close to the bole of the tree or main branches. Cuts more than 1-1/2 inches in diameter shall be painted with an approved tree-wound paint.

3.3 TREE REMOVAL

Where indicated or directed, trees and stumps that are designated as trees shall be removed from areas outside those areas designated for clearing and grubbing. This work shall include the felling of such trees and the removal of their stumps and roots as specified in paragraph GRUBBING. Trees shall be disposed of as specified in paragraph DISPOSAL OF MATERIALS.

3.4 GRUBBING

Grubbing shall consist of the removal and disposal of stumps, roots larger than 3 inches in diameter, and matted roots from the designated grubbing areas. Material to be grubbed, together with logs and other organic or metallic debris, shall be removed to a depth of not less than 18 inches below the original surface level of the ground in areas indicated to be excavated or filled.

3.5 DISPOSAL OF MATERIALS

Logs, stumps, roots, brush, rotten wood, and other refuse from the clearing and grubbing operations shall be disposed of off site at the Contractor's responsibility. Trees and brush material that have been chipped may be disposed on site within the upland disposal area as directed.

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SECTION 02300

EARTHWORK

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 422	(1963; R 2002) Particle-Size Analysis of Soils
ASTM D 1556	(2000) Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 1557	(2002) Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3))
ASTM D 2487	(2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 3017	(1988; R 1996el) Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, DEPARTMENT OF TRANSPORTATION, DIVISION OF PUBLIC WORKS

State Specifications	(1997, as amended) Standard Specifications for Road and Bridge Construction. This publication will be referred to hereinafter as the "State Specifications".

1.2 DEFINITIONS

1.2.1 Unsuitable Material

The term "unsuitable material" as used in these specifications is defined as trash, debris, trees, large brush and demolished structures, demolished concrete and masonry, and pavement. Trees and brush material that have been chipped may be disposed on site within the upland disposal area as directed.

1.2.2 Satisfactory Materials

Satisfactory materials from required excavations or from Contractor furnished off-site sources, shall consist of any material classified by ASTM D 2487 as GW, GP, GM, GP-GM, GW-GM, SW, SP, SM, SP-SM, and SW-SM, that is free from vegetation, roots, organic soil, and frozen materials.

1.2.3 Degree of Compaction

Degree of compaction required is expressed as a percentage of the maximum density obtained by the test procedures presented in ASTM D 1557.

1.3 SUBMITTALS

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

SD-01 Preconstruction Submittals

Plan of Operations; G, RO.

Thirty (30) days prior to commencement of any excavation, the Contractor shall submit for approval a Plan of Operations for accomplishing all excavations, drying of materials, placing and compacting materials in the designated disposal area. This plan shall include but not be limited to the Contractor's proposed sequence of construction, types of equipment to be utilized, and the location and construction of haul roads. This plan shall also include the name, address, telephone number, and qualifications of the testing firm who will be performing the soil testing as specified herein. Additional requirements for the soil testing firm can be found in Section 01451 CONTRACTOR QUALITY CONTROL.

Sources of Materials; G, RO

Gravel Fill

Crushed Aggregate; G, DO

At least 30 days prior to the initial placement of any fill material, the Contractor shall submit the locations of the proposed sources and the names of the processing firms for gravel fill and crushed aggregate material for Byway Road shoulder widening.

SD-06 Test Reports.

Laboratory and Field Test Results; G, RO.

Submit copies of all tests required by this section within 24 hours of the completion of the test.

SD-04 Samples

Gravel Fill; G, DO.

Crushed Aggregate; G, DO

The contractor, at his own expense, shall perform gradation tests on representative samples of gravel fill and crushed aggregate in accordance with the applicable ASTM standards. Testing shall be performed by a Government Approved testing laboratory as specified in Section 01451 CONTRACTOR QUALITY CONTROL. Test samples and Government Quality Assurance samples shall be representative samples taken at the source in the presence of the Contracting Officer. The Contractor shall obtain all samples at a time, which will allow a period of at least 30 days for testing and investigations. Government Quality Assurance samples shall be delivered to the US Army Corps of Engineers at 696 Virginia Road, Concord, MA 01742-2751 at the Contractors expense. The Gravel Fill and Crushed Aggregate for the Government Quality Assurance sample shall be a minimum of fifty pounds bulk and supplied to the Government as indicated above.

1.4 SUBSURFACE DATA

Refer to Section 00320 GEOTECHNICAL DATA for information on subsurface materials and conditions.

1.5 UTILIZATION OF EXCAVATED MATERIALS

"Unsuitable" materials removed from excavations shall become the property of the Contractor and disposed of offsite at the Contractor's expense. Material obtained from required marsh excavations and the portion of the new channel above Sta. 4+25 shall be disposed of onsite as directed. The vegetation matter excavated from the marsh restorations shall be hauled, chipped, placed, and compacted at the designated upland disposal area shown on the plans. Trees and brush material that have been chipped may be disposed on site within the upland disposal area as directed. The granular "satisfactory" materials excavated from the north and south sand source areas and the portion of the new channel below Sta. 4+25 shall be utilized by the Contractor to construct the new north and south sand spits as shown on the drawings.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Sources

Material for the construction of all features of this project will be obtained from on-site sources, with the exception of the gravel fill material for the construction of the shoulder along Byway Road, and the riprap for construction of the scour apron at the south sand spit, which shall be obtained from Contractor furnished off-site sources. The Contracting Officer shall be the sole judge of the suitability of any material for use as a fill material regardless of its source.

2.1.2 Gravel Fill

Material for the construction of the gravel fill shoulder along Byway Road shall consist of sand, gravel, or crushed stone composed of tough, durable particles free from loam, clay, and other deleterious materials. It shall be reasonably free from thin, flat, and elongated pieces, and shall contain no organic matter or soft, friable particles in quantities considered objectionable by the Contracting Officer. The material shall conform to the requirements of Section M.01.02.1 of the State Specifications with the exception that 100% passes the 3" sieve, and the fraction passing the No.

200 sieve shall be non-plastic as classified by ASTM D 2487. The material shall be reasonably well graded within the following limits.

Sieve Size (U.S. Standard)	Percent Passing by Dry Weight
3"	100
1/2"	50 - 85
3/8"	45 - 80
No. 4	40 - 75
No. 40	0 - 45
No. 200	0 - 10

2.1.3 Crushed Aggregate for Shoulder

Material for the construction of the new shoulder surface along Byway Road shall consist of gravel or crushed stone composed of tough, durable particles free from loam, clay, and other deleterious materials. It shall be reasonably free from thin, flat, and elongated pieces, and shall contain no organic matter or soft, friable particles in quantities considered objectionable by the Contracting Officer. The material shall conform to the requirements of Section 303.02 of the State Specifications for Special Graded Aggregate For Shaping And Trimming Driveways Or Shoulders, with the exception that the fraction passing the No. 200 sieve shall be non-plastic as classified by ASTM D 2487. The material shall be reasonably well graded within the following limits.

Sieve Size (U.S. Standard)	Percent Passing by Dry Weight
1 1/2"	100
1"	85 - 100
1/2"	50 - 85
No. 4	40 - 75
No. 40	8 - 35
No. 200	2 - 10

2.1.4 Material for Construction of New Sand Spits

Satisfactory excavated material from the sand source areas as designated on the plans, and the portion of the new main channel between Sta. 0+00 and Sta. 4+25 shall be used to construct the new north and south sand spit areas. No additional material from offsite sources is necessary for construction of these features.

2.1.5 Reuse of Existing Riprap for Stone Protection

Riprap excavated from the existing scour apron at the south sand spit shall be stockpiled and reused as riprap for the new scour apron at the outfall of the pipe extension.

PART 3 EXECUTION

3.1 GENERAL EXCAVATION

The Contractor shall perform excavation of every type of material encountered within the limits of the project to the lines, grades, and elevations indicated and as specified. Grading shall be in conformance with the typical sections shown and the tolerances specified in paragraph

PLACEMENT AND COMPACTION. The material excavated from the high and low marsh areas is expected to be fairly weak and have high water contents. Low earth pressure equipment and mats will be necessary to access all marsh and channel excavation areas. The marsh excavation material shall be hauled, placed, spread and compacted at the upland disposal area as shown on the drawings. All excavations shall be performed using mechanical methods. Hydraulic dredging and transport of material will not be allowed. During construction, excavation and fill shall be performed in a manner and sequence that will provide proper drainage at all times. Management of excess water generated by dredging operations shall be performed in such a manner as to minimize turbidity of water being discharged back into the ocean.

3.1.1 Channel Excavation

Excavation of the portion of the new channel from Sta. 4+25 to Sta. 9+89 shall be performed prior to excavation of the portion of the channel which cuts through the north sand source area (Sta. 4+25 to 3+00). The material excavated from this upper portion of the channel is considered unsuitable material for beach fill, as it has a high silt content, and shall be disposed of in the Upland Disposal Area as shown on the drawings.

3.2 PREPARATION OF DISPOSAL AREA

3.2.1 General Requirements

"Unsuitable" materials at the surface of the disposal area shall be removed and disposed off site. The top 6 inches of soil and vegetative matter shall then be excavated and stockpiled on site for use as final cover for the disposal area after all excavated material from other sources has been placed.

3.2.2 Excavation of Sand Source Within the Upland Disposal Area

No material from the marsh excavations or the upper reaches of the new channel excavation shall be placed in the Upland Disposal Area until the south sand source area within the disposal area has been excavated and the sand materials moved out of the Upland Disposal Area.

3.3 PLACEMENT AND COMPACTION

3.3.1 General

The various fill zones shall be constructed to the lines, grades, and cross sections indicated on the drawings or defined in the specifications unless otherwise directed. Each fill zone shall extend to the actual bottom and side slopes of an excavation regardless of the locations of the payment or excavation lines indicated on the drawings or defined in the specifications. Compacted fills shall be constructed by placing fill material in layers and compacting each layer as specified. Where no designation is shown on the drawings or specified for a fill zone, the fill material for that zone shall be placed as directed. No fill material shall be placed upon a surface with free water, frozen material, nor shall snow, ice, or frozen materials be incorporated into any fills. The Contractor shall maintain and protect all excavations, foundation areas, and fills in completed and uncompleted portions of the work in a satisfactory condition at all times until final completion and acceptance of all work under the contract.

3.3.2 Upland Disposal Area

Material which is disposed of in the on-site disposal area shall be spread with a bulldozer, other approved equipment and by hand to form uniform loose layers not greater than 12-inches thick. Each layer of fill shall be compacted with at least two coverages of the tread of the heavy crawler-type tractor or at least four coverages of the tread of the light tractor, as specified in Paragraph "Compaction Equipment" in this specification section. To the extent practical, mowed and chipped vegetation and the top 6" of excavated soil from the marsh areas shall be placed at the lowest depths of the disposal area so as to minimize the regrowth of vegetation in the disposal area. After completion of all placement and compaction of material within the disposal area, the stockpiled stripped material shall be placed in a uniform lift over the entire disposal area, wetted and compacted with at least four coverages of the treads of the light tractor as specified in this section.

3.3.3 Byway Road Embankment

The Byway Road embankment shall be constructed from satisfactory offsite gravel fill materials within the size and quality requirements specified above. Trees and vegetation along the embankment area shall be removed in accordance with 02231 CLEARING AND GRUBBING prior to placement of fill materials.The gravel fill material shall be placed in successive horizontal layers of loose material not more than 8 inches in depth. Each layer shall be spread uniformly on a soil surface that has been moistened or aerated as necessary, and scarified or otherwise broken up so that the fill will bond with the surface on which it is placed. After spreading, each layer shall be plowed, disked, or otherwise broken up; moistened or aerated as necessary; thoroughly mixed; and compacted to 95 percent of the maximum dry density of the material as determined by ASTM D 1557. Compaction shall be accomplished with the treads of the light tractor or a vibratory roller, as specified in the "Compaction Equipment" paragraphs of this specification section, or other approved equipment to assure that compaction requirements of the full thickness of each lift are met.

3.3.4 Byway Road Shoulder

The surface of the Byway Road shoulder shall be constructed from satisfactory offsite crushed aggregate materials within the size and quality requirements specified above. The crushed aggregate material shall be placed in a single loose layers of not more than 8 inches in depth. The layer shall be placed on aduequately prepared subgrade as described above. Compaction shall be accomplished with a minimum of 5 passes of the vibratory roller as specified in the "Compaction Equipment" paragraphs of this specification section, or other approved equipment to assure that compaction requirements are met.

3.3.5 Drainage Pipe Extension at South Sand Spit

The ground surface below the pipe extension and new headwall shall be graded, wetted and compacted to its finished elevation with a minimum of 5 passes of a light vibratory roller specified in the "Compaction Equipment" paragraphs of this specification section, or other approved equipment prior to placement of the pipe. Stones larger than 6 inches within the footprint of the new pipe shall be removed and stockpiled for use as a riprap scour apron at the relocated pipe outfall. Where stones have been removed, sand fill from required excavations shall be used to bring the ground surface up to final grade. Sand fills under the pipe shall be compacted in lifts no

more than 8 inches in depth and compacted as described above.

3.3.6 Sand Spit Construction

The Contractor shall deposit sand fill in piles at the area above mean high water and then grade the sand to the elevations shown on the plans or as directed by the Contracting Officer. Grading may be performed by any suitable method with equipment adapted to the work. However, the procedures under which the work is performed shall provide for the safe conduct of the work and protection of property which is to remain undisturbed. The fill seaward of the mean high water line shall be graded by equipment within practical limits, the remainder to be formed by natural processes.

3.3.7 Compaction Equipment

Compaction equipment shall conform to the following requirements and shall be used as prescribed in previous paragraphs.

3.3.7.1 Light Tractor

A "light tractor" to be used for compacting fill material shall be a standard commercial make crawler-type tractor weighing between 7,500 and 12,000 pounds and having a width of 5-1/2 feet or less, measured between the out side edges of the crawler tracks.

3.3.7.2 Light Vibratory Roller

A light vibratory roller shall be a unit designed for the compaction of soil or rock by vibration and shall be the product of a manufacturer nationally recognized for the design and production of such equipment. The roller shall have tandem drums having a width of 25 inches or more. The roller shall weigh more than 1700 pounds and shall be self-propelled with forward and reverse speeds.

3.3.7.3 Plate Vibrator

A plate vibrator shall be an approved plate surface vibrator designed for the compaction of soils by vibration and the product of a manufacturer nationally recognized as a specialist in the design and manufacture of such equipment. The surface contact plate shall be between 18 and 24 inches in width.

3.3.7.4 Power Tamper

A power tamper shall be an approved pneumatic or mechanical tamper designed for the compaction of soils and the product of a manufacturer nationally recognized as a specialist in the design and manufacture of such equipment. Jackhammers or similar equipment not specifically designed for the compaction of earth material will not be approved. The tamper shall deliver no more than 1,000 blows per minute. A power tamper to be used for the compaction of fill materials beneath the haunches of the utility pipes shall meet the foregoing requirements and in addition shall have a circular tamping foot not more than 6 inches in diameter and shall be of a type that can operate satisfactorily at angles of up to 45 degrees to the vertical.

3.4 FINISHING

New marsh areas, sand spits, channels and disposal areas shall be graded in

accordance with the sections and grades indicated on the contract drawings. Shoulders, side slopes, and other designated areas shall be shaped, trimmed, and dressed in a neat and workmanlike manner to the lines and grades shown on the contract drawings. The degree of finish for the low and high marsh, the main channel and the tidal channels shall be within 0.2 foot of the grades and elevations indicated. The degree of finish for the Byway Road embankment and North sand spit shall be within 0.3 foot of the grades and elevations indicated. For the upland disposal area and the south sand spit, the finish grades shown on the drawings are anticipated maximum. Actual finish grades may be lower. The finish slopes for the upland disposal area and the south sand spit shall be uniform, and shall not exceed the maximum slopes shown on the drawings. Positive drainage shall be maintained over the entire area.

3.5 TESTING

Testing shall be performed by a US Army Corps of Engineers approved commercial testing laboratory. Field in-place density shall be determined in accordance with ASTM D 1556 or ASTM D 2922. When ASTM D 2922 is used, the test results in a wet unit weight of soil and when using this method, ASTM D 3017 shall be used to determine the moisture content of the soil. The calibration curves furnished with the moisture gages shall be made at the beginning of a job, on each different type of material encountered, at intervals as directed by the Contracting Officer. Copies of calibration curves, results of calibration tests, and field and laboratory density tests shall be furnished to the Contracting Officer within 24 hours of conclusion of the tests. When test results indicate, as determined by the Contracting Officer, that compaction is not as specified, the material shall be recompacted to meet specification requirements. Tests on recompacted areas shall be performed to determine conformance with specification requirements. Inspections and test results shall be certified by a registered professional civil engineer. These certifications shall state that the tests and observations were performed by or under the direct supervision of the engineer and that the results are representative of the materials or conditions being certified by the tests. The following number of tests, if performed at the appropriate time, will be the minimum acceptable for each type operation.

3.5.1 Gravel Fill Material Gradation

One test of this material will be required. Gradation of gravel fill shall be determined in accordance with ASTM D 422.

3.5.2 In-Place Densities

a. One test of compacted gravel fill material at Byway Road will be required. The test shall be perfromed after the third lift is placed and compacted.

3.5.3 Optimum Moisture and Laboratory Maximum Density

One test shall be made for each source of gravel fill material to determine the optimum moisture and laboratory maximum density values.

3.6 SUBGRADE AND EMBANKMENT PROTECTION

During construction, embankments and excavations shall be kept shaped and drained. Each completed lift of the new Byway road embankment shall be protected. If the integrity of a completed lift is compromised by weather

or other occurrences, the lift shall be corrected prior to placing the next lift. The finished subgrade shall not be disturbed by traffic or other operation and shall be protected and maintained by the Contractor in a satisfactory condition until the aggregate course is placed. The storage or stockpiling of materials on the finished subgrade will not be permitted. No earth materials or aggregate courses shall be laid until the subgrade has been checked and approved, and in no case shall materials be placed on a muddy, spongy, or frozen subgrade.

Finished earth surfaces along the new Byway Road embankment shall be protected until hydroseed is applied and growth established.

3.7 STOCKPILING OF SAND MATERIALS

3.7.1 General

All stockpiles of excavated sand materials shall be constructed in approved areas above mean high water. The construction of a stockpile at a location where, in the opinion of the Contracting Officer, its presence will affect the stability of an excavation slope or face will not be permitted. Prior to completion of the contract all stockpile areas shall be cleaned and graded as directed.

3.7.2 Stockpiling of Satisfactory Excavated Materials

During excavation, satisfactory material from sand source areas shall be stockpiled in an orderly manner at a distance from the banks of the excavation sufficient to avoid overloading and to prevent slides or cave-ins. Adequate drainage shall be provided for the stockpiles and surrounding areas by means of ditches, dikes, or other approved methods. The stockpiles shall be protected from contamination with unsuitable excavated material. If the Contractor fails to protect the stockpiles and any material becomes unsuitable as a result, such material, if directed, shall be removed and replaced with satisfactory on-site or imported material from approved sources at no additional cost to the Government.

3.7.3 Stockpiling - Contractor Furnished Materials

The Contractor may stockpile contractor-furnished materials subject to prior approval at no additional cost to the Government.

3.7.4 Loss of Materials

When working in a location which will be inundated, the Contractor shall plan and conduct his operations in such a manner to minimize the loss of sand materials.

-- End of Section --

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SECTION 02870

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SECTION 02870

OSPREY NESTING PLATFORMS

PART 1 GENERAL

1.1 DELIVERY, STORAGE, AND HANDLING

Store items in an enclosed area free from contact with soil and weather until installed. Remove and replace damaged items with new items. The storage area shall be as designated.

1.2 INSPECTION

Materials for the construction of the osprey platforms shall be inspected upon arrival at the job site for conformity to specifications and quality in accordance with paragraph MATERIALS. Unacceptable items shall be removed from the job site.

PART 2 PRODUCTS

2.1 MATERIALS

Materials shall be the standard products of a manufacturer regularly engaged in the manufacture of such products. The materials provided shall be of a type with proven satisfactory use for at least 2 years.

2.1.1 Utility Poles

Wooden poles to hold the platforms shall be used weathered utility poles free from damage and rot. The poles shall be of the minimum length shown on the Sketch attached at the end of this section.

2.1.2 Dimension Lumber

Dimension lumber for construction of the platforms shall be good grade untreated red oak. The lumber shall free of loose or otherwise objectionable knots, and shall have eased edges and ends.

2.1.3 Lag Bolts And Screws For Wood

Lag bolts and screws for wood shall be hot-dipped galvanized steel and compatible with the material to which applied.

2.1.4 Chain Link Fencing

Galvanized chain link fencing for the bottom of the platforms may be new or used. Fabric shall be 9 gauge wire woven in 2 inch mesh.

2.1.5 Aluminum Sheet

Aluminum sheet shall be not less than 0.040 inch in thickness.

PART 3 EXECUTION

3.1 INSTALLATION

The Contractor shall verify that finished grades and other operations affecting installation of the nesting platforms have been completed.

3.1.1 Assembly

See Sketch SK-1 attached at the end of this Section and assemble the osprey platform as follows:

a. Assemble the four frame boards to make a box using galvanized wood screws not less than 4 inched long.

b. Staple the chain link fence material to the bottom of the box frame using large galvanized staples.

c. Attach the base board to the bottom of the box frame using galvanized wood screws not less than 4 inched long.

d. Mount the platform to the top of the utility pole using four galvanized lag bolts as shown.

e. Mount the brace boards on opposite sides of the platform, with one end attached to the pole and the other end attached to the platform, extending at least two feet above the platform. Attach each brace to the pole using galvanized lag bolts and to the platform using galvanized wood screws not less than 4 inches long

f. Wrap the sheet of aluminum around the pole so that the bottom of the sheet will be 10 feet above the ground after the pole is placed. Fasten the sheet to the pole at the seam using 3/4 inch galvanized roofing nails placed 2 inches on center. The aluminum sheet acts as a guard against raccoons climbing the pole into the nest.

g. Install the poles plumb, at the locations shown on the drawings, and as shown on the Sketch attached at the end of this Section. The installation may require the use of augering equipment. Backfill with excavated soil from augering operations and compact around the pole to the maximum extent practicable.. Place a few sticks no larger than 3/4 inch in diameter and 18 inches long in the platform to help attract ospreys to the nest. Excess soil excavated to install the poles shall be evenly spread around the base of the poles to promote drainage.

3.2 RESTORATION AND CLEAN UP

When the installation has been completed, the Contractor shall clean up and protect the site. Existing areas that have been damaged from the installation operation shall be restored to original condition at Contractor's expense.

3.2.1 Clean Up

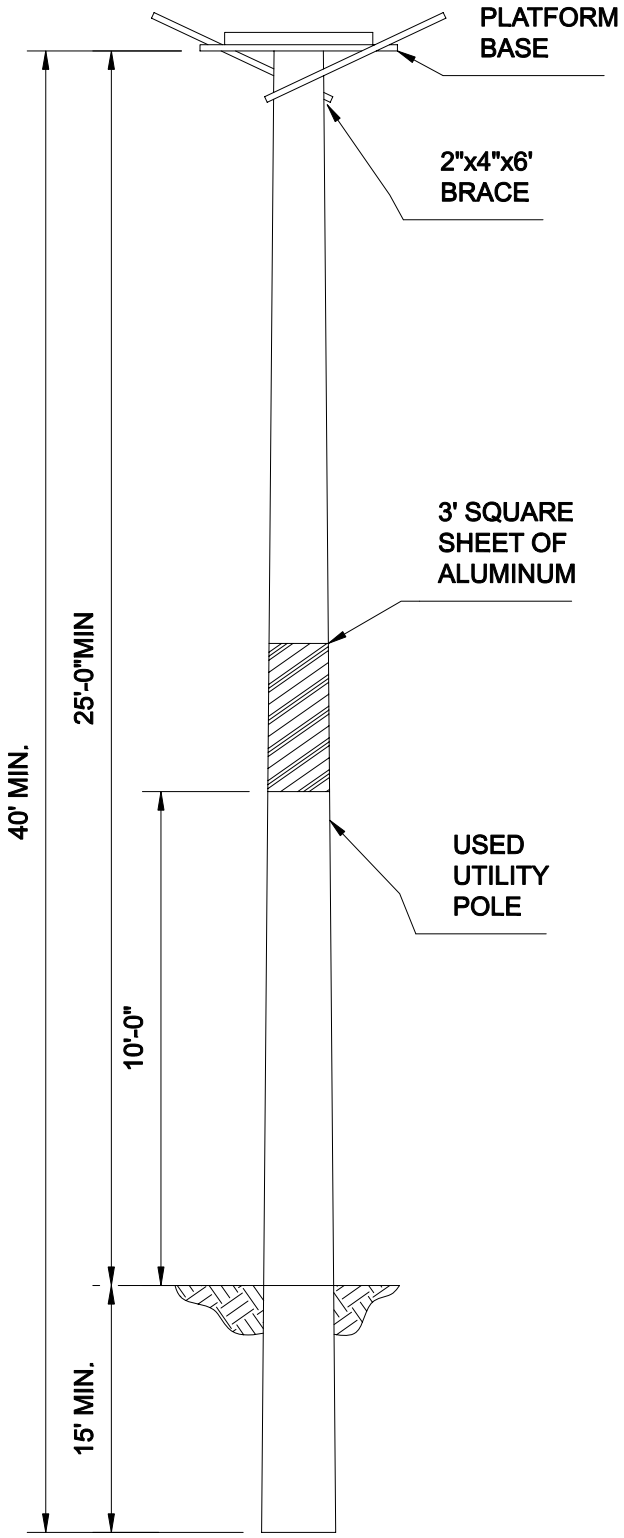
The site shall be cleaned of all materials associated with the installation.

3.2.2 Disposal of Materials

Excess and waste material shall be removed and disposed off Government

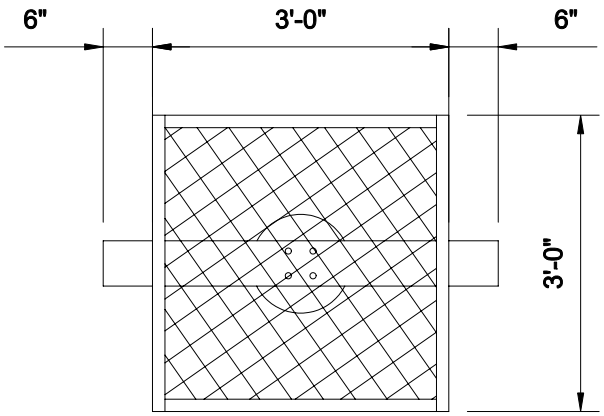
property.

-- End of Section --



ELEVATION

SCALE: NTS



PLATFORM DETAIL
(TOP VIEW)

SCALE: 1/2" = 1'-0"

NOTE: BRACES NOT SHOWN FOR CLEARITY

LIST OF MATERIALS

4-2"x4"x3' BOARDS FOR FRAME
2-2"x4"x6' BOARDS FOR BRACES
1-2"x6"x4' BOARD FOR BASE
1-3' SQUARE CHAIN LINK FENCE
1-3' SQUARE OF ALUMINUM SHEET
4-6" GALVANIZED LAG BOLTS
GALVANIZED WOOD SCREWS AND STAPLES AS NEEDED

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

SECTION 1135 COASTAL WETLAND ECOSYSTEM RESTORATION PROJECT

ALLINS COVE
BARRINGTON, RI

OSPREY PLATFORM
SK-1

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SECTION 02921

TURF

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.

COMMERCIAL ITEM DESCRIPTIONS (CID)

CID A-A-1909	\(Basic; Notice 1) Fertilizer

U.S. DEPARTMENT OF AGRICULTURE (USDA)

AMS Seed Act	(1995) Federal Seed Act Regulations Part 201

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, DEPARTMENT OF TRANSPORTATION, DIVISION OF PUBLIC WORKS

State Specifications	(1971) Standard Specifications for Road and Bridge Construction. This publication will be referred to hereinafter as the "State Specifications".

1.2 SUBMITTALS

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

SD-03 Product Data

Equipment

A listing of equipment to be used for the seeding operation.

Delivery

Delivery schedule.

Quantity Check

Bag count or bulk weight measurements of material used compared with area covered to determine the application rate and quantity installed.

Seed Establishment Period

Calendar time period for the seed establishment period. When there is more than one seed establishment period, the boundaries of the seeded area covered for each period shall be described.

Maintenance Record

Maintenance work performed, area repaired or reinstalled, diagnosis for unsatisfactory stand of grass plants.

SD-07 Certificates

Seed

Prior to the delivery of materials, certificates of compliance attesting that materials meet the specified requirements. Certified copies of the material certificates shall include the following: Classification, botanical name, common name, percent pure live seed, minimum percent germination and hard seed, maximum percent weed seed content, and date tested.

1.3 DELIVERY, INSPECTION, STORAGE, AND HANDLING

1.3.1 Delivery

A delivery schedule shall be provided at least 10 calendar days prior to the first day of delivery.

1.3.2 Inspection

Seed shall be inspected upon arrival at the job site for conformity to species and quality. Seed that is wet, moldy, or bears a test date five months or older, shall be rejected. Unacceptable materials shall be removed from the job site.

1.3.3 Storage

Seed shall be stored in cool, dry locations away from contaminants.

1.3.4 Handling

Except for bulk deliveries, materials shall not be dropped or dumped from vehicles.

1.3.5 Time Limitation

Hydroseeding time limitation for holding seed in the slurry shall be a maximum 24 hours.

PART 2 PRODUCTS

2.1 SEED DISPOSAL AREA

2.1.1 Seed Classification

State-certified seed of the latest season's crop shall be provided in original sealed packages bearing the producer's guaranteed analysis for percentages of mixture, purity, germination, hard seed, weed seed content, and inert material. Labels shall be in conformance with AMS Seed Act and applicable state seed laws.

2.1.2 Seed Mixture for Disposal Area

The seed mixture for the material disposal area, including side slopes, shall be proportioned by weight as follows:

Botanical Name	Common Name	Mixture Percent by Weight	Percent Pure Live Seed
Panicum var. Atlantic	Coastal Panic Grass var. Atlantic*	65	85
Lolium annualis	Annual Ryegrass	35	85

*Switchgrass (Panicum virgatum) may be used as a substitute based on availability.

2.1.1 Seed Sources

The Coastal Panic Grass seed for the disposal area shall be as supplied from Prairie Restorations, (612) 389-4342, or William Wolters (302) 349-4478, or approved equal.

2.1.3 Quality

Weed seed shall be a maximum 1 percent by weight of the total mixture.

2.1.4 Seed Mixing

The mixing of seed may be done by the seed supplier prior to delivery, or on site as directed.

2.1.5 Substitutions

Substitutions will not be allowed without written request and approval from the Contracting Officer.

2.2 TEMPORARY SEED

Temporary seed species for surface erosion control or overseeding shall be as follows:

Botanical Name	Common Name	Percent Pure Live Seed
Lolium annualis	Annual Ryegrass	85

Seed mixtures shall not contain millet or any other large-seed producing grass.

2.3 SEED FOR BYWAY ROAD SHOULDER

2.3.1 Seed Mixture

The seed mixture for the median strip and shoulders of the Escape Road, as well as for any other non-disposal area turf damaged by Contractor

activities, shall be proportioned by weight according to the State Specifications, paragraph M.20.08.3, for "Slope Mix", as follows:

Botanical Name	Common Name	Mixture Percent by Weight	Percent Pure Live Seed
Festuca rubra Pennlawn or Creeping	Red Fescue -	70	78
Lolium perenue	Perennial Ryegrass	10	85
Agrostis Astoria or Exeter	Colonial Bentgrass -	5	85
Lotus corniculata	Birdsfoot Trefoil	15	78*

*Includes up to 20% hard seed

2.3.2 Quality

Weed seed shall not exceed 1 percent by weight of the total mixture. Wet, moldy, or otherwise damaged seed shall be rejected.

2.4 TOPSOIL FOR BYWAY ROAD SHOULDER

Delivered topsoil shall conform to the requirements of the State Specifications, Section M.20.01. Delivered topsoil shall be amended as recommended by a soil test. Delivered topsoil shall be used to cover the grvel fill shoulder at Byway Road as indicated. Topsoil material shall be amended with lime and fertilizer only.

2.5 Soil Amendments

Soil amendments shall consist of lime and fertilizer meeting the following requirements.

2.5.1 Lime

Lime shall be agricultural limestone and shall have a minimum calcium carbonate equivalent of 90 percent and shall be ground to such a fineness that at least 90 percent will pass a 10-mesh sieve and at least 50 percent will pass a 60-mesh sieve.

2.5.2 Fertilizer

Fertilizer shall be commercial grade, free flowing, uniform in composition and conforming to CID A-A-1909. Granular Fertilizer shall be as recommended by the soil test for delivered topsoil. Fertilizer for stripped topsoil and disposal area materials shall consist of nitrogen-phosphorus-potassium ratio: 10 percent nitrogen, 10 percent phosphorus, and 10 percent potassium (10-10-10). At least 40% of the nitrogen content must be organic.

2.6 WATER

Water shall be the responsibility of the Contractor, unless otherwise noted. Water shall not contain elements toxic to plant life.

2.7 SURFACE EROSION CONTROL MATERIAL

Surface erosion control material shall conform to the following:

2.7.1 Surface Erosion Control Blanket

Blanket shall be machine produced mat of wood excelsior formed from a web of interlocking wood fibers; covered on one side with either knitted straw blanket-like mat construction; covered with biodegradable plastic mesh; or interwoven biodegradable thread, plastic netting, or twisted kraft paper cord netting.

2.7.2 Surface Erosion Control Fabric

Fabric shall be knitted construction of polypropylene yarn with uniform mesh openings 3/4 to 1 inch square with strips of biodegradable paper. Filler paper strips shall have a minimum life of 6 months.

2.7.3 Surface Erosion Control Net

Net shall be heavy, twisted jute mesh, weighing approximately 1.22 pounds per linear yard and 4 feet wide with mesh openings of approximately 1 inch square.

2.7.4 Surface Erosion Control Chemicals

Chemicals shall be high-polymer synthetic resin or cold-water emulsion of selected petroleum resins.

2.7.5 Hydrophilic Colloids

Hydrophilic colloids shall be physiologically harmless to plant and animal life without phytotoxic agents. Colloids shall be naturally occurring, silicate powder based, and shall form a water insoluble membrane after curing. Colloids shall resist mold growth.

2.7.6 Erosion Control Material Anchors

Erosion control anchors shall be as recommended by the manufacturer.

PART 3 EXECUTION

3.1 SEEDING TIME AND CONDITIONS

3.1.1 Seeding Time

Seed shall be sown from 15 April to 31 May for spring planting and from 15 August to 30 September for fall planting.

3.1.2 Seeding Conditions

Seeding operations shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture, or other unsatisfactory conditions prevail, the work shall be stopped when directed. When special conditions warrant a variance to the seeding operations, proposed alternate times shall be submitted for approval.

3.1.3 Equipment Calibration

Immediately prior to the commencement of seeding operations, calibration tests shall be conducted on the equipment to be used. These tests shall confirm that the equipment is operating within the manufacturer's specifications and will meet the specified criteria. The equipment shall be calibrated a minimum of once every day during the operation. The calibration test results shall be provided within 1 week of testing.

3.2 SITE PREPARATION

3.2.1 Grading

The Contracting Officer shall verify that finished grades are as indicated on drawings, and smooth grading has been completed in accordance with Section 02300 EARTHWORK.

3.2.2 Tillage

3.2.2.1 Minimum Depth

Soil shall be tilled to a minimum depth of 2 inches by scarifying with heavy rakes, or other method.

3.2.3 Finished Grading

3.2.3.1 Preparation

Drainage patterns shall be maintained as indicated on drawings. Areas compacted by construction operations shall be completely pulverized by tillage. Soil used for repair of erosion or grade deficiencies shall conform to the requirements specified in Section 02300 EARTHWORK. New surfaces shall be blended to existing areas.

3.2.3.2 Turf Areas Debris

Vegation areas shall have debris and stones larger than 3 inchs in any dimension removed from the surface.

3.2.3.3 Protection

Finished graded areas shall be protected from damage by vehicular or pedestrian traffic and erosion.

3.3 INSTALLATION

Prior to installing seed, any previously prepared surface compacted or damaged shall be reworked to meet the requirements of paragraph SITE PREPARATION. Seeding operations shall not take place when the wind velocity will prevent uniform seed distribution.

3.3.1 Installing Seed

Seeding method shall be Hydroseeding. Seeding procedure shall ensure even coverage.

3.3.2 Disposal Area Hydroseeding

Seed shall be mixed to ensure broadcast at the rate of one pound per 1000

square feet. Seed shall be added to water and thoroughly mixed to meet the rates specified. The time period for the seed to be held in the slurry shall be a maximum 24 hours. Wood cellulose fiber mulch and tackifier shall be added at the rates recommended by the manufacturer after the seed and water have been thoroughly mixed to produce a homogeneous slurry. Slurry shall be uniformly applied under pressure over the entire disposal area. The hydroseeded area shall not be rolled.

3.3.3 Watering Seed

Watering shall be started immediately after completing the seeding of an area. Water shall be applied to supplement rainfall at a rate sufficient to ensure moist soil conditions to a minimum 1 inch depth. Run-off and puddling shall be prevented. Watering trucks shall not be driven over turf areas, unless otherwise directed. Watering of other adjacent areas or plant material shall be prevented.

3.4 SURFACE EROSION CONTROL

3.4.1 Surface Erosion Control Material

Where indicated or as directed, surface erosion control material shall be installed in accordance with manufacturer's instructions. Placement of the material shall be accomplished without damage to installed material or without deviation to finished grade.

3.4.2 Temporary Seeding

3.4.2.1 General

When there are contract delays in the seeding operation or a quick cover is required to prevent erosion, the disposal area shall be seeded with a temporary seed as directed by the Contracting Officer. Temporary seed as specified in paragraph TEMPORARY SEED shall be uniformly broadcast and applied at the rate of five pounds per 1000 square feet. The area shall be watered as required.

3.4.2.2 Application

When no other turfing materials have been applied, the area tilled in accordance with paragraph SITE PREPARATION. Temporary seed as specified in paragraph TEMPORARY SEED shall be uniformly broadcast and applied at the rate of five pounds per 1000 square feet. The area shall be watered as required.

3.5 QUANTITY CHECK

For materials provided in bags, the empty bags shall be retained for recording the amount used. For materials provided in bulk, the weight certificates shall be retained as a record of the amount used. The amount of material used shall be compared with the total area covered to determine the rate of application used. Differences between the quantity applied and the quantity specified shall be adjusted as directed.

3.6 RESTORATION AND CLEAN UP

3.6.1 Restoration

Existing turf areas, and facilities that have been damaged from the seeding

operation shall be restored to original condition at Contractor's expense.

3.6.2 Clean Up

Excess and waste material shall be removed from the seeded areas and shall be disposed offsite. Adjacent paved areas shall be cleaned.

3.7 PROTECTION OF INSTALLED AREAS

Immediately upon completion of the seeding operation in an area, the area shall be protected against traffic or other use by erecting barricades and providing signage as required, or as directed.

3.8 SEED ESTABLISHMENT PERIOD

3.8.1 Commencement

The seed establishment period to obtain a healthy stand of grass plants shall begin on the first day of seeding work under this contract and shall continue through the remaining life of the contract and end 3 months after the last day of the seeding operation required by this contract. Written calendar time period shall be furnished for the seed establishment period. When there is more than 1 seed establishment period, the boundaries of the seeded area covered for each period shall be described. The seed establishment period shall be modified for inclement weather, shut down periods, or for separate completion dates of areas.

3.8.2 Satisfactory Stand of Grass Plants

Grass plants shall be evaluated for species and health when the grass plants are a minimum 1 inch high.

3.8.2.1 Disposal Area

A satisfactory stand of grass plants from the seeding operation for a field area shall be a minimum 100 grass plants per square foot. The total bare spots shall not exceed 2 percent of the total seeded area.

3.8.3 Maintenance During Establishment Period

Maintenance of the seeded areas shall include eradicating weeds, insects and diseases; protecting embankments and ditches from surface erosion; maintaining erosion control materials; protecting installed areas from traffic; and watering.

3.8.3.1 Repair or Reinstall

Unsatisfactory stand of grass plants and mulch shall be repaired or reinstalled, and eroded areas shall be repaired in accordance with paragraph SITE PREPARATION.

3.8.3.2 Maintenance Record

A record of each site visit shall be furnished, describing the maintenance work performed; areas repaired or reinstalled; and diagnosis for unsatisfactory stand of grass plants.

-- End of Section --