

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1. CONTRACT ID CODE \_\_\_\_\_ PAGE OF PAGES \_\_\_\_\_

2. AMENDMENT/MODIFICATION NO. 0004  
 3. EFFECTIVE DATE 20-September-02  
 4. REQUISITION/PURCHASE REQ. NO. \_\_\_\_\_  
 5. PROJECT NO. (If applicable) \_\_\_\_\_

6. ISSUED BY CODE DACW17  
 Jacksonville District Office  
 U.S. Army Corps of Engineers  
 400 West Bay Street  
 Jacksonville, FL 32202-4412  
 John Szep (904) 232-1131  
 7. ADMINISTERED BY (If other than Item 6) CODE \_\_\_\_\_  
 Jacksonville District Office  
 U.S. Army Corps of Engineers  
 400 West Bay Street  
 Jacksonville, FL 32202-4412

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  
 (✓) 9A. AMENDMENT OF SOLICITATION NO. DACW17-02-R-0019  
 (X) 9B. DATED (SEE ITEM 11) 09-Jul-2002  
 10A. MODIFICATION OF CONTRACTS/ORDER NO. \_\_\_\_\_  
 10B. DATED (SEE ITEM 13) \_\_\_\_\_  
 CODE \_\_\_\_\_ FACILITY CODE \_\_\_\_\_

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

(X) The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers tended. (X) is extended, ( ) is not extended.  
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  
 (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(✓) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  
 B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  
 C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  
 D. OTHER (Specify type of modification and authority)

**E. IMPORTANT:** Contractor ( ) is not, ( ) is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
 PEANUT ISLAND ENVIRONMENTAL RESTORATION/CONTAINMENT LEVEE CONSTRUCTION AND LAKE WORTH WETLAND RESTORATION (FILL), PALM BEACH COUNTY, FLORIDA.

ANY ENCLOSURES ACCOMPANYING THIS AMENDMENT SHOULD BE INSERTED IN THE PLANS AND SPECIFICATIONS AS APPLICABLE. ALL SUPERSEDED MATERIALS SHOULD BE REMOVED OR ADEQUATELY MARKED TO INDICATE THEY HAVE BEEN SUPERSEDED.

THE DATE FOR RECEIPT OF PROPOSALS IS EXTENDED TO 08 OCTOBER 2002 AT 4:00 PM  
 SEE ATTACHED CONTINUATION SHEET.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) \_\_\_\_\_  
 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) \_\_\_\_\_  
 15B. CONTRACTOR/OFFEROR \_\_\_\_\_  
 15C. DATE SIGNED \_\_\_\_\_  
 16B. UNITED STATES OF AMERICA  
 BY \_\_\_\_\_  
 (Signature of person authorized to sign) (Signature of Contracting Officer)  
 16C. DATE SIGNED \_\_\_\_\_

SF 30 CONTINUATION SHEET

SPECIFICATIONS:

A. Asterisks and Underlined text additions or deletions with line/cross-outs appear where revisions have been made to the text on the enclosed revised pages and pertain only to changes made by this amendment.

B. The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not marked with asterisks, underlining or line/cross-outs.

SECTION 00010 - Delete Section 00010 in its entirety and replace with revised attached pages. Descriptive change, Page 00010-1 (STANDARD FORM 1442) Box 13A, delete the date "9/17/02", and insert the date indicated on STANDARD FORM 30, Box 14.

SECTION 00010A - Delete Section 00010A in its entirety and replace with revised attached pages.

SECTION 00100 - Delete Section 00100 in its entirety and replace with revised attached pages.

SECTION 00700 - Delete Section 00700 in its entirety and replace with revised attached pages.

SECTION 01000 - Delete Section 01000 in its entirety and replace with revised attached pages. All appendices remain unchanged.

SECTION 01270 - Delete Section 01270 in its entirety and replace with revised attached pages.

SECTION 01330 - Delete Appendix A, in its entirety and replace with revised attached pages (Submittal Register). Section and other appendix remain unchanged.

SECTION 01355 - Delete Section 01355 in its entirety and replace with revised attached pages. Appendices remain unchanged.

SECTION 01451 - Delete Section 01451 in its entirety and replace with revised attached pages. Appendices remain unchanged.

SECTION 02220 - Delete Section 02220 in its entirety and replace with revised attached pages. Appendix remains unchanged.

SECTION 02230 - Delete Section 02230 in its entirety and replace with revised attached pages.

SECTION 02300 - Delete Section 02300 in its entirety and replace with revised attached pages.

SECTION 02330 - Delete Section 02330 in its entirety and replace with revised attached pages.

SECTION 02373 - Delete Section 02373 in its entirety and replace with revised attached pages.

SECTION 02380 - Delete Section 02380 in its entirety and replace with revised attached pages. Appendix remains unchanged.

SECTION 02491 - Delete Section 02491 in its entirety and replace with revised attached pages

SECTION 02935 - Delete Appendix A in its entirety and replace with revised attached pages. Section remains unchanged.

DRAWINGS: D.O. File No. 16-38,264 dated January 2002.

DESCRIPTIVE CHANGES. The following are descriptive changes to the drawings. Drawings should be adequately marked to indicate that they have been changed. Drawings furnished to the Contractor in accordance with the Contract Clause entitled "CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS" will be revised to reflect the revisions made descriptively herein.

Dwg. No. 1/3: Zones G/H-5/6, add the following notes:

"NOTES:

1. CONTRACTOR MAY STAGE THROUGHOUT SELECTIVE CLEARING AREA LOCATED SOUTH OF EXISTING BULKHEAD. CONTRACTOR MAY NEED TO CLEAR IN THIS AREA PRIOR TO STAGING. CONTRACTOR MAY TEMPORARILY STAGE WITHIN PROJECT LIMITS AS NEEDED.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE USEFULNESS AND ASSESSING THE INTEGRITY OF EXISTING BULKHEADS. THE CONTRACTOR IS RESPONSIBLE FOR COSTS TO REPAIR DAMAGE DURING CONSTRUCTION AND RESTORE THE BULKHEAD TO ORIGINAL CONDITION UPON COMPLETION OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS AND PERMITS FOR ANY MODIFICATION TO BULKHEADS.
3. BRIDGE OVER PEDESTRIAN TUNNEL LOCATED IN ZONE B2 IS AASHTO (AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS) HS20-44 LOADING.
4. THE CAMPGROUND ALONG THE NORTHEAST SIDE OF THE ISLAND AND PALM BEACH MARITIME MUSEUM ON THE SOUTH END OF THE ISLAND SHALL REMAIN OPEN AND ACCESSIBLE TO THE PUBLIC. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION AREAS ARE CLOSED AND INACCESSIBLE TO THE PUBLIC."

Dwg. No. 2/11: Zones A through H-4/5/6, Section E, delete the title "CROSS SECTION THRU WEST AND WEST PILE CRIB GROINS AND CHANNEL", and replace with "CROSS SECTION THRU WEST GROIN AND WEST CRIB GROINS AND CHANNEL".

Dwg. No. 2/16: Zones E/F-3 and C-4/5, delete label "IPE WOOD DECKING", and replace with label "FIBERGLASS GRATING".

Dwg. No. 2/17: Zones A/B/C-3/4, delete title "IPE DECK NOTES", replace with title "DECK NOTES", and delete Deck Note 1 entirely. Zones B/C-5/6, delete labels "1"x4" (NOMINAL) IPE STRIPS TO FORM PANELS, SEE NOTE THIS SHEET" and "IPE WOOD DECKING", and replace with label "FIBERGLASS GRATING".

Dwg. No. 2/18: Zones F/G-2, Detail 6, insert note "CONTRACTOR SHALL ADJUST DECKING NOTCH DIMENSIONS IN BEAM TO ACCOMODATE FIBERGLASS GRATING DIMENSIONS".

Dwg. No. 2/23: Zone E-5, delete the note "PROPOSED 10' WIDE ROAD WITH 2' CURB AND GUTTER (ROAD PAVERS TO MATCH EXISTING ROAD)", and replace with "PROPOSED 10' WIDE ROAD, SEE DWG 2/30 FOR CURB AND DUTTER DETAILS (ROAD PAVERS TO MATCH EXISTING ROAD)".

Dwg. No. 2/30: Zones E/F/G-4, in Detail Y, move arrow tip for left label EDGE OF PAVEMENT (Zone E-4) to where brick pavement and Curb and Gutter abut, delete entire dimension "8' ROAD", replace with new dimension "10' ROAD" measured between edges of pavement, and add label "FLUSH HEADER CURB" with arrow and 1 foot dimension between right EDGE OF PAVEMENT and 2' SHOULDER. Zones E/F/G-6, in Detail 11, delete entire dimension "8' ROAD" and adjacent .58' dimension, replace with new dimension "10' ROAD" measured between edges of pavement, add label "FLUSH HEADER CURB" with arrow and 1 foot dimension between right EDGE OF PAVEMENT and 2' SHOULDER.

Dwg. No. 2/31: Zones C/D-5/6, delete Detail 15, DS#9 DETAIL.

Dwg. No. 2/33: Zone H-6, add "VALVE TO BE INSTALLED IN A NO. 3 VALVE BOX, REFER TO VALVE BOX DETAIL, DWG 2/34, ZONE G5." In Zone G/H-2, add to NOTE box "4. NEW WATER LINE SHALL BE PLACED UNDER THE ROAD 3' TO 4' FROM THE OUTER EDGE (LAGOON SIDE). REFER TO DWG 2/23 FOR ROAD STATIONING. REFER TO DWG 2/34, ZONE D-2 FOR PIPE TRENCH TYPICAL SECTION."

Dwg. No. 2/34: Zone A-2, add "VALVE TO BE INSTALLED IN A NO. 3 VALVE BOX, REFER TO VALVE BOX DETAIL, ZONE G5."

Dwg. No. 2/36: Zone C-1, add "SEE [WWW.BELLINGHAM-MARINE.COM](http://WWW.BELLINGHAM-MARINE.COM) FOR GANGWAY SPECIFICATIONS OF PUBLIC ADA COMPLIANT RAMPS."

Dwg. No. 2/41: Zone G/H-1/2, add to BRIDGE NOTES box "3. SEE DWG 2/23, ZONE C2 FOR BRIDGE LAYOUT COORDINATES."

Dwg. No. 2/42: All zones, in Sections AK, AL and AM, delete ALL reference to "SHEET 2/30", and replace with reference to "DWG 2/43".

Dwg. No. 2/43: Zones A/B/C-3/4, revise the NOTES box as follows:

a. At end of Note 2, add the sentence "CONCEPTUAL DESIGNS OF PREFABRICATED BRIDGES ARE SHOWN TO PROVIDE THE CONTRACTOR WITH THE DESIGN INTENT OF THE STRUCTURES."

b. Add the following notes: "5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SIGNED/SEALED SHOP DRAWINGS FOR THE BRIDGES BASED ON THE LOADING INFORMATION PROVIDED." and "6. THE CRITERIA FOR BRIDGE SUPPORT LOCATIONS IS BASED ON THE SPAN OF THE GLULAM BEAMS."

Dwg. No. 2/45: Zones B/C-4, add circled number "12" to designate bent between Bents 6 and 7. Zone H-5, in LEGEND box, switch positions of labels "BENT DESIGNATION" and "PILE".

Dwg. No. 2/49: Zones G/H-1/2, add "NOTE 1: A 12" DEEP BEAM WITH A MINIMUM SECTION MODULUS OF 52.9 CUBIC INCHES SHALL BE PROVIDED. AA'S I8X6.35 IS ACCEPTABLE FOR INTERMEDIATE BEAMS."

Dwg. No. 3/1: Zone G-1, PAVING & DRAINAGE NOTES, Delete Note 4 and replace with "4. 6" LIMEROCK BASE COMPACTED TO 98% MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T-180. BASE MATERIAL SHALL MEET THE REQUIREMENTS INDICATED IN THE SPECIFICATIONS."

<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW17-02-R-0019	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 09-Jul-2002	PAGE OF PAGES
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IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W32CSS20234461	6. PROJECT NO.
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7. ISSUED BY USA ENGINEER DISTRICT, JACKSONVILLE 400 WEST BAY STREET CESAJ-CT (ROOM 867) JACKSONVILLE FL 32202-4412	CODE DACW17	8. ADDRESS OFFER TO BY HAND: DELIVER TO "ISSUED BY" ADDRESS BY MAIL: USAED JACKSONVILLE, PO BOX 4970, ATTN: CESAJ-CT JACKSONVILLE FL 32232-0019
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9. FOR INFORMATION CALL A. NAME JOHN G. SZEP	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 904-232-1131
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**SOLICITATION**

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

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

PEANUT ISLAND ENVIRONMENTAL RESTORATION/CONTAINMENT LEVEE CONSTRUCTION AND LAKE WORTH WETLAND RESTORATION (FILL), PALM BEACH COUNTY, FLORIDA.

DRAWINGS: D.O. FILE NO. 16-38,264 DATED JAN 2002 IN 95 SHEETS PLUS THE COVER.

MAGNITUDE OF CONSTRUCTION: BETWEEN \$10,000,000.00 AND \$25,000,000.00.

DESCRIPTION OF WORK: SEE PAGE 00010-3

THIS SOLICITATION IS BEING ADVERTISED UNRESTRICTED PURSUANT TO PL 100-656 UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM. ALL BUSINESSES ARE ENCOURAGED TO PARTICIPATE.

YOU MUST BE REGISTERED IN THE CENTRAL CONTRACTOR REGISTRATION IN ORDER TO BE ELIGIBLE TO RECEIVE AN AWARD FROM THIS SOLICITATION. CALL 1-888-227-2423 OR VISIT THE FOLLOWING WEB SITE: <http://www.ccr.gov> FOR MORE INFORMATION.

11. The Contractor shall begin performance within 30 calendar days and complete it within \*1095 calendar days after receiving  
 award,  notice to proceed. This performance period is  mandatory,  negotiable. (See \* Section 00700.)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 10
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13. ADDITIONAL SOLICITATION REQUIREMENTS: \* See Section 00100A

A. Sealed offers in original and \* copies to perform the work required are due at the place specified in Item 8 by 4:00 PM (hour) local time \*  
\* 9/17/02 (date). If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee  is,  is not required.

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

D. Offers providing less than 90 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 \_\_\_\_\_)*

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:

**SEE SCHEDULE**

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*

ITEM  
26

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

K3M0J00

27. PAYMENT WILL BE MADE BY

CODE

t0b0200

SOUTH FLORIDA AREA OFFICE  
USA CORPS OF ENGINEERS ((CESAJ-CO-W)  
4400 PGA BLVD, SUITE 203  
PALM BEACH GARDENS, FL 33410  
(PHONE: 561-626-5299)

USACE FINANCE CENTER  
5722 INTEGRITY DRIVE  
ATTN: CEFC-AO-P  
MILLINGTON, TN 38054-5005

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)*

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA  
BY

31C. AWARD DATE

Description of Work (Continued from Item 10): The project consists of the following three (3) major components:

(1) Peanut Island Environmental Restoration consists of clearing exotic vegetation to be disposed of by chipping and burning; excavation and removal (off Island) of dredged material deposits to create a shallow-water reef, lagoons, tidal pond and flushing channels; revegetation of wetland and upland areas with native plant species; construction of exterior and pile crib breakwater structures, entrance channels/jetties; and, relocation of existing utilities. Public access features to be constructed/installed include: prefabricated bridges; floating dock system, gangway and access platform; mangrove boardwalk; observation deck/swimming platform; and, access pathway/road with drainage system and underground utility installation.

(2) Peanut Island Containment Levee Construction includes the download and removal (off Island) of dredged material deposits from Florida Inland Navigation District's dredged material containment area and construction of a new dredged material containment levee (in lifts) on Peanut Island. Levee construction includes construction of perimeter stub and crest roads; weirs/walkways; rock drainage flumes; and, landscaping of levee and maritime hammock.

(3) City of Lake Worth Wetland Restoration (Fill) project is a submerged dredged area located in Lake Worth Lagoon, which is the designated project fill site for the dredged material deposits removed from Peanut Island. The material shall be deposited in the submerged dredged hole to specified elevations to create seagrass habitat and mangrove islands; rock and vegetation shall be placed to stabilize shoreline and create oyster reef habitat.

Utilization of hydraulic pumping equipment for placement of fill material at the Lake Worth Wetland Restoration site on this project is prohibited. The purpose of the project which is located in Palm Beach County is to restore upland and shallow-water habitat for fisheries and wildlife.

## SECTION 00010A

## LINE ITEMS AND PRICING SCHEDULE

PEANUT ISLAND ENVIRONMENTAL RESTORATION/CONTAINMENT LEVEE CONSTRUCTION AND  
LAKE WORTH WETLAND RESTORATION (FILL), PALM BEACH COUNTY

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
0001	SITE CLEARING - PEANUT ISLAND:				
0001AA	CLEARING AND GRUBBING		LUMP SUM		\$ _____
0001AB	SELECTIVE CLEARING		LUMP SUM		\$ _____
0001AC	DEMOLITION/ DISPOSAL		LUMP SUM		\$ _____
0002	SITE CLEARING - LAKE WORTH WETLAND RESTORATION (FILL) SITE:				
0002AA	SELECTIVE CLEARING		LUMP SUM		\$ _____
0002AB	DEMOLITION/DISPOSAL		LUMP SUM		\$ _____
0003	EXCAVATE (PEANUT)/TRANSPORT/FILL (LAKE WORTH WETLAND RESTORATION):				
0003AA	EXCAVATE/TRANSPORT/FILL (ESTIMATED QUANTITY)	1,223,830	CUBIC YARD	\$ _____	\$ _____
0003AB	TURBIDITY CONTROL AND MONITORING		LUMP SUM		\$ _____
0004	STONE PROTECTION - PEANUT ISLAND:				
0004AA	TYPE A ARMOR STONE (GRANITE) (ESTIMATED QUANTITY)	13,488	TON	\$ _____	\$ _____
0004AB	TYPE B ARMOR STONE (LIMESTONE) (ESTIMATED QUANTITY)	9,711	TON	\$ _____	\$ _____
0004AC	TYPE C ARMOR STONE (LIMESTONE) (ESTIMATED QUANTITY)	2,228	TON	\$ _____	\$ _____
0004AD	BEDDING STONE (ESTIMATED QUANTITY)	7,474	TON	\$ _____	\$ _____
0004AE	CORE STONE (ESTIMATED QUANTITY)	3,707	TON	\$ _____	\$ _____
0004AF	GEOTEXTILE (FILTER FABRIC) (ESTIMATED QUANTITY)	26,332	SQUARE YARD	\$ _____	\$ _____
0005	STONE PROTECTION - LAKE WORTH WETLAND RESTORATION (FILL):				
0005AA	TYPE B ARMOR STONE (LIMESTONE) (ESTIMATED QUANTITY)	28,100	TON	\$ _____	\$ _____
0005AB	GEOTEXTILE (FILTER FABRIC) (ESTIMATED QUANTITY)	43,200	SQUARE YARD	\$ _____	\$ _____

00010A-1 (Rev Am #0004)

DACW17-02-R-0019

## SECTION 00010A

## LINE ITEMS AND PRICING SCHEDULE

PEANUT ISLAND ENVIRONMENTAL RESTORATION/CONTAINMENT LEVEE CONSTRUCTION AND  
LAKE WORTH WETLAND RESTORATION (FILL), PALM BEACH COUNTY

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
0006	CONCRETE PILINGS:				
*0006AA	18" X18" CONCRETE PILE LOAD TESTS (ESTIMATED QUANTITY)	160	LINEAR FOOT	\$ _____	\$ _____
0006AB	12" X 12" CONCRETE PILING (ESTIMATED QUANTITY)	640	LINEAR FOOT	\$ _____	\$ _____
0006AC	14" X 14" CONCRETE PILING (ESTIMATED QUANTITY)	1,800	LINEAR FOOT	\$ _____	\$ _____
0006AD	18" X 18" CONCRETE PILING, GENERAL (NOT INCLUDING TEST PILES)(ESTIMATED QUANTITY)	2,480	LINEAR FOOT	\$ _____	\$ _____*
0006AE	18" X 18" CONCRETE PILING FOR SWIMMING PLATFORM (ESTIMATED QUANTITY)	180	LINEAR FOOT	\$ _____	\$ _____
0007	Y-GROIN (SE PEANUT)		LUMP SUM		\$ _____
0008	PILE CRIB BREAKWATER (SE PEANUT)		LUMP SUM		\$ _____
0009	OBSERVATION DECK/SWIMMING PLATFORM (SE PEANUT)				
0009AA	OBSERVATION DECK		LUMP SUM		\$ _____
0009AB	SWIMMING PLATFORM		LUMP SUM		\$ _____
0010	PRE-FABRICATED BRIDGES (SE PEANUT):				
0010AA	BRIDGES NOS. 1, 2, AND 3		LUMP SUM		\$ _____
0010AB	FLOATING DEBRIS SCREENS AND TIMBER PILINGS WITH NO BOATING SIGNAGE		LUMP SUM		\$ _____
0011	FLOATING DOCKS/LAND CONNECTIONS (W PEANUT)		LUMP SUM		\$ _____
0012	MANGROVE BOARDWALK (W PEANUT)		LUMP SUM		\$ _____
0013	VEHICLE ROADWAYS (SE AND W PEANUT) AND PEDESTRIAN PATHWAY (SE PEANUT)		LUMP SUM		\$ _____
0014	LEVEE CONSTRUCTION - PEANUT ISLAND:				

00010A-2 (Rev Am #0004)

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SECTION 00010A

LINE ITEMS AND PRICING SCHEDULE

PEANUT ISLAND ENVIRONMENTAL RESTORATION/CONTAINMENT LEVEE CONSTRUCTION AND  
LAKE WORTH WETLAND RESTORATION (FILL), PALM BEACH COUNTY

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
0014AA	SELECT FILL COMPACTED (ESTIMATED QUANTITY)	147,150	CUBIC YARD	\$ _____	\$ _____
0014AB	SELECT FILL UNCOMPACTED		LUMP SUM		\$ _____
0014AC	PAVING AND DRAINAGE		LUMP SUM		\$ _____
0014AD	WEIRS AND BOARDWALK		LUMP SUM		\$ _____
0014AE	PERIMETER FENCE PURCHASE/INSTALLATION		LUMP SUM		\$ _____
0015	REVEGETATION/LANDSCAPING:				
0015AA	PEANUT ISLAND		LUMP SUM		\$ _____
0015AB	LAKE WORTH WETLAND RESTORATION (FILL) SITE		LUMP SUM		\$ _____
*0016	MOBILIZATION AND DEMOBILIZATION		LUMP SUM		\$ _____
	TOTAL (LINE ITEMS 0001 THRU 0016)				\$ _____ *

NOTES: OFFERORS MUST OFFER ON ALL LINE ITEMS. SEE PROVISION AT 52.236-28 (SECTION 00100).  
SEE SECTION 00100, "INSTRUCTIONS TO OFFERORS".

SECTION 00100  
INSTRUCTIONS TO OFFERORS

52.204-6	DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER
52.211-2	AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L.
<u>52.211-6</u>	<u>BRAND NAME OR EQUAL</u>
52.215-1	INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION
52.216-1	TYPE OF CONTRACT
52.222-23	NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION
52.225-12	NOTICE OF BUY AMERICAN ACT REQUIREMENT--CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS
52.233-2	SERVICE OF PROTEST (AUG 1996) (CESAJ ADAPTATION)
52.236-27 (ALT I)	SITE VISIT (CONSTRUCTION) (FEB 1995) (ALTERNATE I) (FEB 1995) (CESAJ ADAPTATION)
52.236-28	PREPARATION OF PROPOSALS--CONSTRUCTION
52.252-5	AUTHORIZED DEVIATIONS IN PROVISIONS
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SECTION 00100  
INSTRUCTIONS TO OFFERORS

52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address exactly as stated in the offer.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

- (1) Company name.
- (2) Company address.
- (3) Company telephone number.
- (4) Line of business.
- (5) Chief executive officer/key manager.
- (6) Date the company was started.
- (7) Number of people employed by the company.
- (8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at <http://www.customerservice@dnb.com>. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at [globalinfo@mail.dnb.com](mailto:globalinfo@mail.dnb.com).

(End of provision)

52.211-2 AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L (DEC 1999)

Copies of specifications, standards, and data item descriptions cited in this solicitation may be obtained--

- (a) From the ASSIST database via the Internet at <http://assist.daps.mil>; or
- (b) By submitting a request to the--Department of Defense Single Stock Point (DoDSSP), Building 4, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Telephone (215) 697-2667/2179, Facsimile (215) 697-1462.

(End of provision)

52.211-6 BRAND NAME OR EQUAL (AUG 1999)

(a) If an item in this solicitation is identified as "brand name or equal," the purchase description reflects the characteristics and level of quality that will satisfy the Government's needs. The salient physical, functional, or performance characteristics that "equal" products must meet are specified in the solicitation.

(b) To be considered for award, offers of "equal" products, including "equal" products of the brand name manufacturer, must-

(1) Meet the salient physical, functional, or performance characteristic specified in this solicitation;

(2) Clearly identify the item by-

(i) Brand name, if any; and

(ii) Make or model number;

(3) Include descriptive literature such as illustrations, drawings, or a clear reference to previously furnished descriptive data or information available to the Contracting Officer; and

(4) Clearly describe any modification the offeror plans to make in a product to make it conform to the solicitation requirements. Mark any descriptive material to clearly show the modification.

(c) The Contracting Officer will evaluate "equal" products on the basis of information furnished by the offeror or identified in the offer and reasonably available to the Contracting Officer. The Contracting Officer is not responsible for locating or obtaining any information not identified in the offer.

(d) Unless the offeror clearly indicates in its offer that the product being offered is an "equal" product, the offeror shall provide the brand name product referenced in the solicitation.

(End of provision)

52.215-1 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (MAY 2001)

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

"Discussions" are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

In writing, writing, or written means any worded or numbered expression that can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

"Proposal modification" is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

"Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

"Time", if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals. (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.

(2) The first page of the proposal must show--

(i) The solicitation number;

(ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);

(iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;

(iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

(v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Submission, modification, or revision, of proposals.

(i) Offerors are responsible for submitting proposals, and any modifications, or revisions, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that proposal or revision is due.

(ii)(A) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(3) It is the only proposal received.

(B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--

(1) Mark the title page with the following legend: This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with-- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award. (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government's interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) The Government may disclose the following information in postaward debriefings to other offerors:

(i) The overall evaluated cost or price and technical rating of the successful offeror;

(ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;

(iii) A summary of the rationale for award; and

(iv) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(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)

52.222-23 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
22.4%	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 Palm Beach County, Florida.

52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2002)

(a) Definitions. Construction material, designated country construction material, domestic construction material, foreign construction material, and NAFTA country construction material, as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act-- Construction Materials under Trade Agreements" (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act or Balance of Payments Program before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers. (1) When an offer includes foreign construction material, other than designated country or NAFTA country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic, designated country, or NAFTA country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic, designated country, or NAFTA country construction material, and the offeror shall be required to furnish such domestic, designated country, or NAFTA country construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996) (CESAJ ADAPTATION)

(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 the person identified in item 10 of the Standard Form 33 (if this solicitation is for non-commercial supplies or services), in item 9A of the Standard Form 1442 (if this solicitation is for construction or dredging), in item 7 of the Standard Form 1449 (if this solicitation is for commercial items), or in item 7 of the DA Form 4069-R (if this solicitation is for work funded by a non-appropriated funds instrumentality) at the address shown in item 7 of the SF 33, item 7 of the SF 1442, item 9 of the SF 1449, or item 5 of the DA Form 4069-R.

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

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995) (ALTERNATE I) (FEB 1995) (CESAJ ADAPTATION)

(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) An organized site visit has been scheduled for -- 23 July 2002.

(c) Participants will meet at -- (Location will be provided by the contract administration office via telephone. See (d) below.)

(d) Participants should call Mr. George Cooper, Area Engineer, South Florida Area Office at 561-626-6971 on or before 19 July 2002 to make arrangements.

(e) Core borings are not available. (If available, follow the instructions in the Physical Data paragraph in Section 01000 to make arrangements to inspect the borings. Failure to follow the instructions may result in a delay ranging in duration from one hour to 4 days.)

(f) After the site visit, a memorandum summarizing the visit will be posted to the EBS Web page under the solicitation number. This posting will be strictly for informational purposes only. The memorandum will not become a part of the solicitation. If the solicitation needs to be changed as a result of information obtained during the site visit, a written amendment will be made available to all registered vendors. Questions regarding any information given in the memorandum must be directed to the person whose name appears in item 9 of the Standard Form 1442.

52.236-28 PREPARATION OF PROPOSALS--CONSTRUCTION (OCT 1997)

(a) Proposals must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a proposal must initial each erasure or change appearing on any proposal form.

(b) The proposal form may require offerors to submit proposed prices for one or more items on various bases, including--

(1) Lump sum price;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of paragraphs (b)(1) through (b)(3) of this provision.

(c) If the solicitation requires submission of a proposal on all items, failure to do so may result in the proposal being rejected without further consideration. If a proposal on all items is not required, offerors should insert the words "no proposal" in the space provided for any item on which no price is submitted.

(d) Alternate proposals will not be considered unless this solicitation authorizes their submission.

(End of provision)

#### 52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any Defense FAR Supplement (48 CFR Chapter 2) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

#### HAND-DELIVERING OFFERS TO THE FEDERAL OFFICE BUILDING IN JACKSONVILLE

Access to the federal office building (FOB) in Jacksonville is controlled by security personnel. Visitors are required to enter the FOB at the Bay Street entrance. All packages, briefcases, envelopes, etc., must be passed through a metal detector. All briefcases must be opened for examination by security personnel. Any package or envelop that sets off the metal detector must either be opened at the Bay Street entrance for examination by security personnel or taken, by the visitor, to the loading dock located on the Water Street side of the FOB to be x-rayed. Persons hand-delivering offers should take care to arrive at the FOB in sufficient time to permit completion of security requirements and delivery of the offer to the designated office prior to the time set for receipt of offers.

(End of paragraph 999.204-4000)

#### DISTRIBUTING SOLICITATION AMENDMENTS

If this solicitation is posted to the Jacksonville District's Electronic Bid Set (EBS) web site, any amendments issued against the solicitation will be distributed to registered vendors by one of the following methods:

(i) If the solicitation media is CD-Rom and the amendment is substantial enough to require re-issuance of the entire solicitation, a new CD-Rom, with the amendment incorporated, will be sent to all registered vendors.

(ii) If the solicitation media is CD-Rom and the amendment does not require re-issuance of the CD-Rom, the amendment will be posted to the EBS web site in PDF format and registered vendors will be notified via e-mail to download the amendment from the web site. Copies will not be sent by mail, fax, or delivery service.

(iii) If the solicitation media is paper or WWW, the amendment will be posted to the EBS web site in PDF format and registered vendors will be notified via e-mail to download the amendment from the web site. Copies will not be sent by mail, fax, or delivery service.

(End of paragraph 999.204-4001)

#### OBTAINING INFORMATION REGARDING THIS SOLICITATION

Verbal requests for information must be directed to the person whose name appears in item 9 of the SF 1442. Collect calls cannot be accepted. Written requests for explanations must be sent to the person identified in item 9 of the SF 1442 and may be sent via facsimile to 904-232-2748. Inquiries and requests that are directed to any other person may not be relayed to the proper person and, therefore, may not be answered.

(End of paragraph number 999.215-4000)

#### OFFEROR'S CHECKLIST

The following list should be used by offerors to avoid irregularities that have been noted in previous offers.

(CAUTION: PROPOSALS THAT ARE QUALIFIED MAY BE CONSIDERED UNACCEPTABLE. BE CAREFUL!)

1. This list is not exhaustive. You must ensure that your proposal complies with all of the terms and conditions of the solicitation.
2. Have amendments to the solicitation been acknowledged in the space provided on the offer form, and on the envelope containing the offer? If not, acknowledgement must be made prior to the time set for receipt of proposals.
3. Have prices been inserted for all items?
4. Have all prices and computations been checked carefully?
5. Have all changes been made to the pricing schedule if required by an amendment?
6. Is the offer submitted on the latest pricing schedule?
7. Are decimal points in prices in proper places?
8. Have you checked for transposition of figures in prices inserted on the pricing schedule?
9. Is the offer signed by a person who is legally authorized to bind the offeror? Is the offeror's address and phone number included?
10. If the offer is signed by an agent, is legal evidence of his authority included with the proposal?
11. Have the appropriate boxes been checked in all paragraphs of the Representations and Certifications? Have they been submitted with the proposal?
12. Have the requirements of the Instructions to Offerors -- Competitive provision, if included in this solicitation, been met?
13. If a bid guarantee is required, does your bid guarantee comply with the Bid Guarantee clause of the solicitation? If the bid guarantee is in the form of a bid bond is it on Standard Form 24 (REV. 10-98)? If your bid guarantee does not firmly bind you (and your sureties, if applicable) to the United States of America, YOUR OFFER MAY BE REJECTED.
14. If the bid guarantee is in the form of a bid bond, is it completely and properly executed, dated not later than the bid opening date, signed by Principal and Surety, corporate certificates executed, and seals affixed, all as contained in "Instructions" on Standard Form 24 (REV. 10-98)? Power of Attorney is also required to accompany the bond. Is the penal sum marked in? If an individual surety (or sureties) is (are) guaranteeing the bid bond, have the requirements of the Pledges Of Assets clause of this solicitation been satisfied and are the supporting documents included with the bond?

(End of paragraph number 999.215-4011)

#### SUBCONTRACTING PLAN TARGET GOALS

The offeror's attention is directed to the Small, Small Disadvantaged And Women Owned Small Business Subcontracting Plan clause of this solicitation. The clause and this paragraph do not apply to small business concerns.

(a) Where applicable, the offeror shall submit a subcontracting plan to the Contracting Officer for review and approval prior to contract award. The subcontracting plan may be submitted with the offer or after the date set for receipt of offers. If the plan is not submitted with the offer, the Contracting Officer will request the plan and specify the due date. The plan must contain all required elements set forth in the above referenced contract clause; must address basic contract requirements and options separately; and must demonstrate how the Contractor will accomplish the subcontracting requirements consistent with the obligations described in the clause. The plan will be evaluated in accordance with Army FAR Supplement (AFARS) Appendix DD, Subcontracting Plan Evaluation Guide. (AFARS is available on the worldwide web at <http://acqnet.saalt.army.mil/library/default.htm>.) Acceptability of the plan will be one of the elements considered by the Contracting Officer when determining contractor responsibility prior to award of a contract.

(b) The following subcontracting target goals are provided for informational purposes only. They are not legally binding.

Category	Target Goal
(1) Small Business Concerns	71.1%
(2) SBA Small Disadvantaged Business Concerns	10.2%
(3) Women-Owned Small Business Concerns	10.6%
(4) SBA HUBZone Small Business Concerns	3.0%
(5) Service-Disabled Veteran-Owned Small Business Concerns	3.0%
(6) Veteran-Owned Small Business Concerns	5.0%

(Stated percentages are based on the total amount of planned subcontracting; not the price of the contract. These target goals do not apply to contracts for commercial items. See FAR Part 12. For definitions of small business concern, small disadvantaged business concern, and woman owned small business concern, see the Small Business Program Representations (FAR 52.219-1) provision in this section of this solicitation. For HUBZone small business concern qualifications, see FAR subpart 19.13.)

(c) After award of the contract and prior to commencement of work, the Deputy for Small Business will instruct the Contractor in the preparation and timely submission of required subcontracting reports (SF-294 and SF-295). Where practicable, the above briefing will take place during the pre-work conference.

(c) Additional information concerning subcontracting plan requirements may be obtained from Ms. Debra Overstreet, Deputy for Small Business, Phone: 904-232-1150, or email [debra.k.overstreet@usace.army.mil](mailto:debra.k.overstreet@usace.army.mil).

(End of paragraph number 999.219-4002)

#### SOURCES FOR ASSISTANCE IN LOCATING SMALL BUSINESS SUBCONTRACTORS

(a) The Offeror's attention is directed to the Utilization of Small Business Concerns clause of this solicitation. Assistance in identifying small, small disadvantaged and women-owned small business concerns may be obtained as follows:

(1) Internet Web Site Sources for searches throughout the U.S., Puerto Rico and the USVI:

(a) Small Business Administration PRO-Net Database

<http://www.sba.gov>

(b) Procurement Technical Assistance Center (PTAC)

<http://www.dla.mil/ddas>

(c) Veterans Business Outreach Center 800-542-7232

[www.vboc.org](http://www.vboc.org)

(2) Sources of information within Florida:

- (a) Florida Atlantic University PTAC, Ft. Lauderdale 954-771-6520
  - (b) University of South Florida PTAC, Tampa 813-974-4371
  - (c) Chamber of Commerce PTAC, Jacksonville 904-928-1100
  - (d) University of West Florida PTAC, Pensacola 850-474-2919
  - (e) Florida A&M University PTAC, Tallahassee 850-599-3407
  - (f) Latin Builders Association, Miami-Dade Area 954-704-0345
  - (g) Broward County Minority Bldrs Coalition 305-792-1121
- (3) Sources of information within the U.S. Virgin Islands:
- (a) Dept of Public Works, DBE Coordinator, St. Thomas 340-773-1290
- (4) Sources of information within Puerto Rico:
- (a) Puerto Rico General Contractors Association, San Juan 787-781-2200
  - (b) San Juan PTAC 787-753-6861
- (b) Further information may be obtained from the Jacksonville District's Small Business Internet site, located under Business Opportunities at <http://www.saj.usace.army.mil>. The above information is continually updated on the Internet site.
- (c) Failure to comply with the requirements of the Utilization of Small Business Concerns clause can be grounds for imposition of sanctions.

(End of paragraph number 999.219-4003)

SECTION 00700  
CONTRACT CLAUSES

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SECTION 00700  
CONTRACT CLAUSES

52.202-1 DEFINITIONS (DEC 2001) --ALTERNATE I (MAY 2001)

(a) Agency head or head of the agency means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.

(b) "Commercial component" means any component that is a commercial item.

(c) Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and that--

(i) Has been sold, leased, or licensed to the general public; or

(ii) Has been offered for sale, lease, or license to the general public;

(2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;

(3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for--

(i) Modifications of a type customarily available in the commercial marketplace; or

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. "Minor" modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;

(4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;

(5) Installation services, maintenance services, repair services, training services, and other services if--

(i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services--

(i) Catalog price means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) Market prices means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) Component means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) Contracting Officer means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) Nondevelopmental item means--

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

(End of clause)

### 52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

#### 52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

#### 52.203-7 ANTI-KICKBACK PROCEDURES. (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract,

which exceed \$100,000.

(End of clause)

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 1997)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before 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 in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such

person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay 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 in connection with any of the following covered Federal actions: 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; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure 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 in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding \$100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(End of clause)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

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

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” For paper and paper products, postconsumer material means “postconsumer fiber” defined by the U.S. Environmental Protection Agency (EPA) as--

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

“Printed or copied double-sided” means printing or reproducing a document so that information is on both sides of a sheet of paper.

“Recovered material,” for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as “recovered fiber” and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as--

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of clause)

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)

(a) The Government suspends or debar Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of the \$25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed \$25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principles, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(End of clause)

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

The Contractor shall be required to (a) commence work under this contract within 30 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 1,095 calendar days after receipt of Notice to Proceed (NTP). If the Contractor's proposed completion schedule is less than 1095 calendar days, the Contractor's proposed schedule shall be incorporated into the contract and the Contractor shall be required to complete the work not later than the number of calendar days stated therein. The accepted schedule shall become the contract completion schedule for all purposes including assessment of liquidated damages. The time stated for completion shall include final cleanup of the premises.

(End of clause)

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

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$1,178 for each calendar day of delay until the work is completed or accepted.

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

(End of clause)

52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the Contracting Officer, is justified.

52.215-2 AUDIT AND RECORDS--NEGOTIATION (JUN 1999)

(a) As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Examination of costs. If this is a cost-reimbursement, incentive, time-and-materials, labor-hour, or price redeterminable contract, or any combination of these, the Contractor shall maintain and the Contracting Officer, or an authorized representative of the Contracting Officer, shall have the right to examine and audit all records and other evidence sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this contract. This right of examination shall include inspection at all reasonable times of the Contractor's plants, or parts of them, engaged in performing the contract.

(c) Cost or pricing data. If the Contractor has been required to submit cost or pricing data in connection with any pricing action relating to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

(1) The proposal for the contract, subcontract, or modification;

(2) The discussions conducted on the proposal(s), including those related to negotiating;

(3) Pricing of the contract, subcontract, or modification; or

(4) Performance of the contract, subcontract or modification.

(d) Comptroller General--(1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the Contractor's directly pertinent records involving transactions related to this contract or a subcontract hereunder.

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Reports. If the Contractor is required to furnish cost, funding, or performance reports, the Contracting Officer or an authorized representative of the Contracting Officer shall have the right to examine and audit the supporting records and materials, for the purpose of evaluating (1) the effectiveness of the Contractor's policies and procedures to produce data compatible with the objectives of these reports and (2) the data reported.

(f) Availability. The Contractor shall make available at its office at all reasonable times the records, materials, and other evidence described in paragraphs (a), (b), (c), (d), and (e) of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in Subpart 4.7, Contractor Records Retention, of the Federal Acquisition Regulation (FAR), or for any longer period required by statute or by other clauses of this contract. In addition--

(1) If this contract is completely or partially terminated, the Contractor shall make available the records relating to the work terminated until 3 years after any resulting final termination settlement; and

(2) The Contractor shall make available records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.

(g) The Contractor shall insert a clause containing all the terms of this clause, including this paragraph (g), in all subcontracts under this contract that exceed the simplified acquisition threshold, and--

(1) That are cost-reimbursement, incentive, time-and-materials, labor-hour, or price-redeterminable type or any combination of these;

(2) For which cost or pricing data are required; or

(3) That require the subcontractor to furnish reports as discussed in paragraph (e) of this clause.

The clause may be altered only as necessary to identify properly the contracting parties and the Contracting Officer under the Government prime contract.

(End of clause)

#### 52.215-11 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA-- MODIFICATIONS (OCT 1997)

(a) This clause shall become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, except that this clause does not apply to any modification if an exception under FAR 15.403-1 applies.

(b) If any price, including profit or fee, negotiated in connection with any modification under this clause, or any cost reimbursable under this contract, was increased by any significant amount because (1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data, (2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) of this clause.

(c) Any reduction in the contract price under paragraph (b) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which--

(1) The actual subcontract; or

(2) The actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(d)(1) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2)(i) Except as prohibited by subdivision (d)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if--

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the "as of" date specified on its Certificate of Current Cost or Pricing Data, and that the data were not submitted before such date.

(ii) An offset shall not be allowed if--

(A) The understated data were known by the Contractor to be understated before the "as of" date specified on its Certificate of Current Cost or Pricing Data; or

(B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the "as of" date specified on its Certificate of Current Cost or Pricing Data.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid--

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data that were incomplete, inaccurate, or noncurrent.

(End of clause)

52.215-13 SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall--

(1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4; and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4 on the date of agreement on price or the date of award, whichever is later.

(End of clause)

52.215-17 WAIVER OF FACILITIES CAPITAL COST OF MONEY (OCT 1997)

The Contractor did not include facilities capital cost of money as a proposed cost of this contract. Therefore, it is an unallowable cost under this contract.

(End of clause)

52.215-21 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.403-4 on the date of the agreement on price or the date of the award, whichever is later, the Contractor may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable--

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Information on modifications of contracts or subcontracts for commercial items. (A) If--

(1) The original contract or subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was based on adequate price competition or prices set by law or regulation, or was a contract or subcontract for the acquisition of a commercial item; and

(2) The modification (to the contract or subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or subcontract from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.

(B) For a commercial item exception, the Contractor shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold that is adequate for evaluating the reasonableness of the price of the modification. Such information may include--

(1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.

(2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.

(3) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The Contractor grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation, access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the Contractor is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The Contractor shall submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before award (except for unpriced actions), the Contractor shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of clause)

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

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

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

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

(ii) Otherwise successful offers from small business concerns;

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

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

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

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

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

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

\_\_\_ Offeror elects to waive the evaluation preference.

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

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

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

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

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

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

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

(End of clause)

52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

Definitions. As used in this contract--

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

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

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

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

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern means a small business concern that represents, as part of its offer that--

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

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

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

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

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

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

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

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(End of clause)

#### 52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2002)

(a) This clause does not apply to small business concerns.

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

Commercial item means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

Commercial plan means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

Individual contract plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

Master plan means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

Subcontract means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of--

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to HUBZone small business concerns;

(v) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vi) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to--

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns; and

(v) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority

Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with—

- (i) Small business concerns;
- (ii) Veteran-owned small business concerns;
- (iii) HUBZone small business concerns;
- (iv) Small disadvantaged business concerns; and
- (v) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will--

- (i) Cooperate in any studies or surveys as may be required;
- (ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;
- (iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.
- (iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing

source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated)

(i) Source lists (e.g., PRO-Net), guides, and other data that identify small business, veteran-owner small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating--

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether HUBZone small business concerns were solicited and, if not, why not;

(D) Whether small disadvantaged business concerns were solicited and, if not, why not;

(E) Whether women-owned small business concerns were solicited and, if not, why not; and

(F) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact--

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through--

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owner small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities,

specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owner small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owner small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owner small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owner small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided--

(1) the master plan has been approved, (2) the offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer, and (3) goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with (1) the clause of this contract entitled "Utilization Of Small Business Concerns," or (2) an approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) Standard Form 294, Subcontracting Report for Individual Contracts. This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) Standard Form 295, Summary Subcontract Report. This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and

commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

52.219-16 LIQUIDATED DAMAGES-SUBCONTRACTING PLAN (JAN 1999)

(a) Failure to make a good faith effort to comply with the subcontracting plan, as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan. If, at contract completion or, in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled "Small Business Subcontracting Plan," the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by the commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled Disputes, from any final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

(End of clause)

52.222-3 CONVICT LABOR (AUG 1996)

The Contractor agrees not to employ in the performance of this contract any person undergoing a sentence of imprisonment which has been imposed by any court of a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands. This limitation, however, shall not prohibit the employment by the Contractor in the performance of this contract of persons on parole or probation to work at paid employment during the term of their sentence or persons who have been pardoned or who have served their terms. Nor shall it

prohibit the employment by the Contractor in the performance of this contract of persons confined for violation of the laws of any of the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

- (a)(1) The worker is paid or is in an approved work-training program on a voluntary basis;
  - (2) Representatives of local union central bodies or similar labor union organizations have been consulted;
  - (3) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services; and
  - (4) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and
- (b) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(End of clause)

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION. (SEP 2000)

(a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) Payrolls and basic records.

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding \$100,000 and require subcontractors to include these provisions in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of clause)

52.222-6 DAVIS-BACON ACT (FEB 1995)

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(d) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

#### 52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized

representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding

journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

52.222-11 SUBCONTRACTS (LABOR STANDARDS (FEB 1988)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act-Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination-Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations, and Certification of Eligibility, and such other clauses as the Contracting Officer may, by appropriate instructions, require, and also a clause requiring subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited in this paragraph.

(b)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(End of clause)

52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

(End of clause)

52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

(End of clause)

52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(End of clause)

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)

(a) Segregated facilities, as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

52.222-26 EQUAL OPPORTUNITY (APR 2002)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with paragraphs (b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be

relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of subparagraphs (b)(1) through (11) of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)

52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION  
(FEB 1999)

(a) Definitions. "Covered area," as used in this clause, means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary," as used in this clause, means Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

"Employer's identification number," as used in this clause, means the Federal Social Security number used on the employer's quarterly federal tax return, U.S. Treasury Department Form 941.

"Minority," as used in this clause, means--

(1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);

(3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and

(4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving

any construction trade, each such subcontract in excess of \$10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each

individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.

(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.

(j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its

implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

(m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

(n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(End of clause)

#### 52.222-35 EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA AND OTHER ELIGIBLE VETERANS (DEC 2001)

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

All employment openings means all positions except executive and top management, those positions that will be filled from within the Contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days duration, and part-time employment.

Executive and top management means any employee--

(1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;

(2) Who customarily and regularly directs the work of two or more other employees;

(3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;

(4) Who customarily and regularly exercises discretionary powers; and

(5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

Other eligible veteran means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

Positions that will be filled from within the Contractor's organization means employment openings for which the Contractor will give no consideration to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Qualified special disabled veteran means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

Special disabled veteran means--

(1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability--

(i) Rated at 30 percent or more; or

(ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (i.e., a significant impairment of the veteran's ability to prepare for, obtain, or retain employment consistent with the veteran's abilities, aptitudes, and interests); or

(2) A person who was discharged or released from active duty because of a service-connected disability.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases; or

(2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases.

(b) General. (1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;

(iii) Rate of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeship, and on-the-job training under 38 U.S.C. 3687, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).

(c) Listing openings. (1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening occurs. Listing employment openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

(2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State agency, it need not advise the State agency

of subsequent contracts. The Contractor may advise the State agency when it is no longer bound by this contract clause.

(d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.

(e) Postings. (1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.

(2) The employment notices shall--

(i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and

(ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.

(3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheelchair).

(4) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement, or other contract understanding, that the Contractor is bound by the terms of the Act and is committed to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(g) Subcontracts. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor to enforce the terms, including action for noncompliance.

(End of clause)

#### 52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)

(a) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;

- (iii) Rates of pay or any other form of compensation and changes in compensation;
- (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- (v) Leaves of absence, sick leave, or any other leave;
- (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
- (vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- (viii) Activities sponsored by the Contractor, including social or recreational programs; and
- (ix) Any other term, condition, or privilege of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings. (1) The Contractor agrees to post employment notices stating--

(i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and

(ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of clause)

52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The number of special disabled veterans, the number of veterans of the Vietnam era, and other eligible veterans in the workforce of the Contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of the total, the number of special disabled veterans, the number of veterans of the Vietnam era, and the number of other eligible veterans; and

(3) The maximum number and the minimum number of employees of the Contractor during the period covered by the report.

(b) The Contractor shall report the above items by completing the Form VETS-100, entitled "Federal Contractor Veterans" Employment Report (VETS-100 Report)".

(c) The Contractor shall submit VETS-100 Reports no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date--

(1) As of the end of any pay period between July 1 and August 31 of the year the report is due; or

(2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The Contractor shall base the count of veterans reported according to paragraph (a) of this clause on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all special disabled veterans, veterans of the Vietnam era, and other eligible veterans who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that--

(1) The information is voluntarily provided;

(2) The information will be kept confidential;

(3) Disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and

(4) The information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

(End of clause)

#### 52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

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

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR

1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract where employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

#### 52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.

(b) A Contractor owned or operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if--

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

(2) 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);

(3) The facility does not meet the reporting thresholds of toxic chemicals established under 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);

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

(5) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the

Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt--

(1) The Contractor shall notify the Contracting Officer; and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall--

(1) For competitive subcontracts expected to exceed \$100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding \$100,000 (including all options), the substance of this clause, except this paragraph (e).

(End of clause)

#### 52.225-11 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM--CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (FEB 2002)

(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 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.

Designated country means any of the following countries: Aruba, Austria, Bangladesh, Belgium, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Canada, Cape Verde, Central African Republic, Chad, Comoros, Denmark, Djibouti, Equatorial Guinea, Finland, France, Gambia, Germany, Greece, Guinea, Guinea-Bissau, Haiti, Hong Kong, Iceland, Ireland, Israel, Italy, Japan.

Kiribati, Korea, Republic of, Lesotho, Liechtenstein, Luxembourg, Malawi, Maldives, Mali, Mozambique, Nepal, Netherlands, Niger, Norway, Portugal, Rwanda.

Sao Tome and Principe, Sierra Leone, Singapore, Somalia, Spain, Sweden, Switzerland, Tanzania U.R., Togo, Tuvalu, Uganda, United Kingdom, Vanuatu, Western Samoa, Yemen.

Designated country construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a designated country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different construction material distinct from the materials from which it was transformed.

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.

North American Free Trade Agreement country means Canada or Mexico.

North American Free Trade Agreement country construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a North American Free Trade Agreement (NAFTA) country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a NAFTA country into a new and different construction material distinct from the materials from which it was transformed.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Construction materials. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) and the Balance of Payments Program by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the Trade Agreements Act and the North American Free Trade Agreement (NAFTA) apply to this acquisition. Therefore, the Buy

American Act and Balance of Payments Program restrictions are waived for designated country and NAFTA country construction materials.

(2) The Contractor shall use only domestic, designated country, or NAFTA country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: None

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) 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 restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent. For determination of unreasonable cost under the Balance of Payments Program, the Contracting Officer will use a factor of 50 percent;

(ii) The application of the restriction of the Buy American Act or Balance of Payments Program 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 or Balance of Payments Program. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) 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 or Balance of Payments Program 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)(4)(i) of this clause.

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

(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...			

\1\ 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)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUL 2000)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from importation into the United States under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban, and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold (however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

(End of clause)

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at (FAR) 2.101 to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

(End of clause)

52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause)

52.228-1 BID GUARANTEE (SEP 1996) (CESAJ ADAPTATION)

(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. If the bid guarantee is in the form of a bid bond, in accordance with FAR 28.106-1 the bidder shall use Standard Form 24, Bid Bond. Use of any other form may not firmly bind the bidder and sureties to the United States of America and may, therefore, be cause for rejection of the bid. If the bid guarantee is secured by assets owned by individual sureties, the bidder and sureties shall comply with the Pledges Of Assets clause (FAR 52.228-11) of this solicitation. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be 20 percent of the bid price or \$3,000,000 whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(f) Bid bonds on their face must unequivocally bind the bonding company or the bid will be nonresponsive. The Contracting Officer has authority to decide whether there is adequate evidence of authority to unequivocally bind the bonding company. Evidence of intent to be bound may not be submitted after bid opening. Therefore, in order for a power of attorney accompanying a bid bond to be acceptable, it must be (i) an original (not facsimile) power of attorney, (ii) a copy of a power of attorney (or power of attorney with facsimile signatures) accompanied by an original (not facsimile) signature by the secretary of the company certifying that the power of attorney remains in full force and effect and has not been revoked, or (iii) a copy of a power of attorney with facsimile signatures which indicates on its face that the surety intends to be bound by facsimile signatures AND has a RAISED corporate seal.

(g) In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

- (b) Any surety fails to furnish reports on its financial condition as required by the Government;
- (c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or
- (d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS. (OCT 1995)

In accordance with Section 806(a)(3) of Pub. L. 102-190, as amended by Sections 2091 and 8105 of Pub. L. 103-355, upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to the Miller Act, the Contractor shall promptly provide a copy of such payment bond to the requester.

52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the

expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefore. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than \$25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

\_\_\_\_\_  
[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date \_\_\_\_\_

IRREVOCABLE LETTER OF CREDIT NO. \_\_\_\_\_

Account party's name \_\_\_\_\_

Account party's address \_\_\_\_\_

For Solicitation No. \_\_\_\_\_(for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$\_\_\_\_\_. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on \_\_\_\_\_, or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of \_\_\_\_\_ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

\_\_\_\_\_

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

\_\_\_\_\_  
[Confirming Financial Institution's Letterhead or Name and Address]

(Date) \_\_\_\_\_

Our Letter of Credit Advice Number \_\_\_\_\_

Beneficiary: \_\_\_\_\_ [U.S. Government agency]

Issuing Financial Institution: \_\_\_\_\_

Issuing Financial Institution's LC No.: \_\_\_\_\_

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by \_\_\_\_\_ [name of issuing financial institution] for drawings of up to United States dollars \_\_\_\_\_ /U.S. \$\_\_\_\_\_ and expiring with our close of business on \_\_\_\_\_ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at \_\_\_\_\_.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of \_\_\_\_\_ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

\_\_\_\_\_

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

\_\_\_\_\_

[City, State]

(Date) \_\_\_\_\_

[Name and address of financial institution]

Pay to the order of \_\_\_\_\_ [Beneficiary Agency] \_\_\_\_\_ the sum of United States \$ \_\_\_\_\_. This draft is drawn under Irrevocable Letter of Credit No. \_\_\_\_\_.

\_\_\_\_\_  
[Beneficiary Agency]

By: \_\_\_\_\_

(End of clause)

52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (JUL 2000)-

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

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is \$100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of

Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 270b(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (JAN 1991)

(a) "Contract date," as used in this clause, means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

"All applicable Federal, State, and local taxes and duties," as used in this clause, means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

"After-imposed Federal tax," as used in this clause, means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

"After-relieved Federal tax," as used in this clause, means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

(b) The contract price includes all applicable Federal, State, and local taxes and duties.

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds \$250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

52.229-5 TAXES--CONTRACTS PERFORMED IN U.S. POSSESSIONS OR PUERTO RICO  
(APR 1984)

The term "local taxes," as used in the Federal, State, and local taxes clause of this contract, includes taxes imposed by a possession of the United States or by Puerto Rico.

(End of clause)

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 1997)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

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

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

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

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

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

#### 52.232-17 INTEREST (JUNE 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid. reproduce, prepare derivative works, distribute copies to the public, and (b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

#### 52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986) - ALTERNATE I (APR 1984)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence. Unless otherwise stated in this contract, payments to an assignee of any amounts due or to become due under this contract shall not, to the extent specified in the Act, be subject to reduction or setoff.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

#### 52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (FEB 2002)

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 therefore 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 Disputes Act 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 payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

52.232-34 PAYMENT BY ELECTRONIC FUNDS TRANSFER--OTHER THAN CENTRAL CONTRACTOR REGISTRATION (MAY 1999) (CESAJ ADAPTATION)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT) except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

- (i) Accept payment by check or some other mutually agreeable method of payment; or
- (ii) Request the Government to extend payment due dates until such time as the Government makes payment by EFT (but see paragraph (d) of this clause).

(b) Mandatory submission of Contractor's EFT information. (1) The Contractor is required to provide the Government with the information required to make payment by EFT (see paragraph (j) of this clause). The Contractor shall provide this information directly to the office designated in this contract to receive that information (hereafter: "designated office") by no later than 15 days prior to submission of the first request for payment. If not otherwise specified in this contract, the payment office is the designated office for receipt of the Contractor's EFT information. If more than one designated office is named for the contract, the Contractor shall provide a separate notice to each office. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the designated office(s).

(2) If the Contractor provides EFT information applicable to multiple contracts, the Contractor shall specifically state the applicability of this EFT information in terms acceptable to the designated office. However, EFT information supplied to a designated office shall be applicable only to contracts that identify that designated office as the office to receive EFT information for that contract.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. (1) The Government is not required to make any payment under this contract until after receipt, by the designated office, of the correct EFT payment information from the Contractor. Until receipt of the correct EFT information, any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(2) If the EFT information changes after submission of correct EFT information, the Government shall begin using the changed EFT information no later than 30 days after its receipt by the designated office to the extent payment is made by EFT. However, the Contractor may request that no further payments be made until the updated EFT information is implemented by the payment office. If such suspension would result in a late payment under the prompt payment terms of this contract, the Contractor's request for suspension shall extend the due date for payment by the number of days of the suspension.

(e) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

- (i) Making a correct payment;
- (ii) Paying any prompt payment penalty due; and
- (iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment and the provisions of paragraph (d) shall apply.

(f) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction

instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall provide the EFT information required by paragraph (j) of this clause to the designated office, and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information provided by the Contractor's financial agent.

(i) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address in the contract.

(j) EFT information. The Contractor shall provide the following information to the designated office. The Contractor may supply this data for this or multiple contracts (see paragraph (b) of this clause). The Contractor shall designate a single financial agent per contract capable of receiving and processing the EFT information using the EFT methods described in paragraph (c) of this clause.

(1) The contract number (or other procurement identification number).

(2) The Contractor's name and remittance address, as stated in the contract(s).

(3) The signature (manual or electronic, as appropriate), title, and telephone number of the Contractor official authorized to provide this information.

(4) The name, address, and 9-digit Routing Transit Number of the Contractor's financial agent.

(5) The Contractor's account number and the type of account (checking, saving, or lockbox).

(6) If applicable, the Fedwire Transfer System telegraphic abbreviation of the Contractor's financial agent.

(7) If applicable, the Contractor shall also provide the name, address, telegraphic abbreviation, and 9-digit Routing Transit Number of the correspondent financial institution receiving the wire transfer payment if the Contractor's financial agent is not directly on-line to the Fedwire Transfer System; and, therefore, not the receiver of the wire transfer payment.

A form and instructions for submission of EFT information may be obtained at <http://www.fc.usace.army.mil/adobe/pub/directdep.pdf>.

#### 52.233-1 DISPUTES. (DEC 1998)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that

can be resolved under a contract clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by subparagraph (d)(2) of this clause. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding \$100,000; or

(B) Regardless of the amount claimed, when using -

(1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or

(2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute Resolution Act (ADRA).

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be

paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

(End of clause)

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

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

The Contractor shall perform on the site, and with its own organization, work equivalent to at least 30 percent 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.

52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to

take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

#### 52.236-4 PHYSICAL DATA (APR 1984) (CESAJ ADAPTATION)

Data and information furnished or referred to below are 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) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by (See Section 01000 of this contract).

(b) Weather conditions (See Section 01000 of this contract).

(c) Transportation facilities (See Section 01000 of this contract).

#### 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

#### 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

#### 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

#### 52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

#### 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

#### 52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

#### 52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

#### 52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

#### 52.236-13 ACCIDENT PREVENTION (NOV 1991) – ALTERNATE I (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

(1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;

(2) avoid interruptions of Government operations and delays in project completion dates; and

(3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(f) Before commencing the work, the Contractor shall-

(1) Submit a written proposed plan for implementing this clause. The plan shall include an analysis of the significant hazards to life, limb, and property inherent in contract work performance and a plan for controlling these hazards; and

(2) Meet with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

(End of clause)

#### 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during

the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

#### 52.236-16 QUANTITY SURVEYS (APR 1984)

(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 Government shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

(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.

(End of clause)

#### 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that

the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(End of clause)

#### 52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

#### 52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method

authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract. (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of the work;
- (3) In the Government-furnished facilities, equipment, materials, services, or site; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

- (1) the date, circumstances, and source of the order and
- (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

#### 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAY 2002)

(a) Definitions. As used this clause--

"Commercial item", has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (JUN 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

#### 52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

(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.

(End of clause)

#### 52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those

procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of \$50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract . . . . . , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)  
(SEP 1996) - ALTERNATE I (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's

interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any

extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if--

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

(i) acts of God or of the public enemy,

(ii) acts of the Government in either its sovereign or contractual capacity,

(iii) acts of another Contractor in the performance of a contract with the Government,

(iv) fires,

(v) floods,

(vi) epidemics,

(vii) quarantine restrictions,

(viii) strikes,

(ix) freight embargoes,

(x) unusually severe weather, or delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998) (CESAJ ADAPTATION)

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):

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

For DFARS: <http://www.acq.osd.mil/dp/dars/dfars.html>

#### 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any Defense FAR Supplement (48 CFR Chapter 2) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

#### 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

#### 252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

#### 252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)

(a) Definitions. As used in this clause—

(1) "Arising out of a contract with the DoD" means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) "Conviction of fraud or any other felony" means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of *nolo contendere*, for which sentence has been imposed.

(3) "Date of conviction" means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On the board of directors of any DoD contractor or first-tier subcontractor;

(3) As a consultant, agent, or representative for any DoD contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that a defense contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly—

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

(End of clause)

#### 252.203-7002 DISPLAY OF DOD HOTLINE POSTER (DEC 1991)

(a) The Contractor shall display prominently in common work areas within business segments performing work under Department of Defense (DoD) contracts, DoD Hotline Posters prepared by the DoD Office of the Inspector General.

(b) DoD Hotline Posters may be obtained from the DoD Inspector General, ATTN: Defense Hotline, 400 Army Navy Drive, Washington, DC 22202-2884.

(c) The Contractor need not comply with paragraph (a) of this clause if it has established a mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(End of clause)

#### 252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

#### 252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION.(NOV 2001)

(a) Definitions.

As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at <http://www.ccr.gov>.

(End of clause)

252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS  
(DEC 1991)

(a) Definition.

"Cooperative agreement holder" means a State or local government; a private, nonprofit organization; a tribal organization (as defined in section 4(c) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93-268; 25 U.S.C. 450 (c))); or an economic enterprise (as defined in section 3(e) of the Indian Financing Act of 1974 (Pub. L. 93-362; 25 U.S.C. 1452(e))) whether such economic enterprise is organized for profit or nonprofit purposes; which has an agreement with the Defense Logistics Agency to furnish procurement technical assistance to business entities.

(b) The Contractor shall provide cooperative agreement holders, upon their request, with a list of those appropriate employees or offices responsible for entering into subcontracts under defense contracts. The list shall include the business address, telephone number, and area of responsibility of each employee or office.

(c) The Contractor need not provide the listing to a particular cooperative agreement holder more frequently than once a year.

(End of clause)

252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)

(a) The Contractor shall not deny consideration for a subcontract award under this contract to a potential subcontractor subject to on-site inspection under the INF Treaty, or a similar treaty, solely or in part because of the actual or potential presence of Soviet inspectors at the subcontractor's facility, unless the decision is approved by the Contracting Officer.

(b) The Contractor shall incorporate this clause, including this paragraph (b), in all solicitations and contracts exceeding the simplified acquisition threshold in part 13 of the Federal Acquisition Regulation, except those for commercial items.

(End of clause)

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of \$25,000 with a firm, or subsidiary of a firm, that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country. The notice must include the name of the proposed subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

(End of clause)

252.215-7000 PRICING ADJUSTMENTS (DEC 1991)

The term "pricing adjustment," as used in paragraph (a) of the clauses entitled "Price Reduction for Defective Cost or Pricing Data - Modifications," "Subcontractor Cost or Pricing Data," and "Subcontractor Cost or Pricing Data - Modifications," means the aggregate increases and/or decreases in cost plus applicable profits.

(End of clause)

252.219-7003 SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS) (APR. 1996)

This clause supplements the Federal Acquisition Regulation 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan, clause of this contract.

(a) *Definitions. Historically black colleges and universities*, as used in this clause, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

*Minority institutions*, as used in this clause, means institutions meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)). The term also

includes Hispanic-serving institutions as defined in section 316(b)(1) of such Act (20 U.S.C. 1059c(b)(1)).

(b) Except for company or division-wide commercial items subcontracting plans, the term *small disadvantaged business*, when used in the FAR 52.219-9 clause, includes historically black colleges and universities and minority institutions, in addition to small disadvantaged business concerns.

(c) Work under the contract or its subcontracts shall be credited toward meeting the small disadvantaged business concern goal required by paragraph (d) of the FAR 52.219-9 clause when:

(1) It is performed on Indian lands or in joint venture with an Indian tribe or a tribally-owned corporation, and

(2) It meets the requirements of 10 U.S.C. 2323a.

(d) Subcontracts awarded to workshops approved by the Committee for Purchase from People Who are Blind or Severely Disabled (41 U.S.C. 46-48), may be counted toward the Contractor's small business subcontracting goal.

(e) A mentor firm, under the Pilot Mentor-Protégé Program established under Section 831 of Pub. L. 101-510, as amended, may count toward its small disadvantaged business goal, subcontracts awarded--

(f) The master plan approval referred to in paragraph (f) of the FAR 52.219-9 clause is approval by the Contractor's cognizant contract administration activity.

(g) In those subcontracting plans which specifically identify small, small disadvantaged, and women-owned small businesses, the Contractor shall notify the Administrative Contracting Officer of any substitutions of firms that are not small, small disadvantaged, or women-owned small businesses for the firms listed in the subcontracting plan. Notifications shall be in writing and shall occur within a reasonable period of time after award of the subcontract. Contractor-specified formats shall be acceptable.

(End of clause)

252.223-7001 HAZARD WARNING LABELS (DEC 1991)

(a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.

(b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:

(1) Federal Insecticide, Fungicide and Rodenticide Act;

(2) Federal Food, Drug and Cosmetics Act;

(3) Consumer Product Safety Act;

(4) Federal Hazardous Substances Act; or

(5) Federal Alcohol Administration Act.

(c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through

(5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

MATERIAL (If None, Insert "None.")

ACT

\_\_\_\_\_

\_\_\_\_\_

(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

(End of clause)

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

#### 252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (APR 2002)

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

(1) Component means any item supplied to the Government as part of an end product or of another component.

(2) End product means supplies delivered under a line item of this contract.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States, its possessions, or Puerto Rico:

(1) Food.

(2) Clothing.

(3) Tents, tarpaulins, or covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To end products incidentally incorporating cotton, other natural fibers, or wool, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To foods that have been manufactured or processed in the United States, its possessions, or Puerto Rico, regardless of where the foods (and any component if applicable) were grown or produced;

(4) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or

(5) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

(End of clause)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992)

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

(1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).

(2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concerns, as determined under regulations of the President.

(b) Certification. By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

(End of clause)

252.226-7001 Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts (Sep 2001)

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

"Indian" means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any "Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

"Indian organization" means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C. Chapter 17.

"Indian-owned economic enterprise" means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.

"Indian tribe" means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452 (c).

"Interested party" means a contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contract shall use its best efforts to give Indian organizations and Indian-owned economic enterprises the maximum practicable opportunity to participate in the subcontracts it awards, to the fullest extent consistent with efficient performance of the contract.

(c) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless and interested party challenges its status or the Contracting Officer has independent reason to question that status.

(d) In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs, Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street NW, MS-2626-MIB, Washington, DC 20240-4000. The BIA will determine the eligibility and will notify the Contracting Officer. No incentive payment will be made--

(1) Within 59 working days of subcontract award;

(2) While a challenge is pending; or

(3) If a subcontractor is determined to be an ineligible participant.

(e)(1) The Contractor, on its own behalf or on behalf of a subcontractor at any tier, may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of cost-type contract.

(ii) The target cost of a cost-plus-incentive-fee contract.

(iii) The target cost and ceiling price of a fixed-price incentive contract.

(iv) The price of a firm-fixed-price contract.

(2) The amount of the adjustment that may be made to the contract is 5 percent of the estimated cost, target cost, or firm-fixed price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(3) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(4) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor.

(5) If the Contractor requests and receives an adjustment on behalf of a subcontractor, the Contractor is obligated to pay the subcontractor the adjustment.

(f) The Contractor shall insert the substance of this clause, including this paragraph (f), in all subcontracts that--

(1) Are for other than commercial items; and

(2) Are expected to exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

(End of clause)

#### 252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and

(ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

(End of clause)

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000)

(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, 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 the contract drawings identified on the following index of drawings:

<u>Title</u>	<u>File</u>	<u>Drawing No.</u>
Peanut Island Environmental Restoration/Containment Levee Construction and Lake Worth Wetland Restoration (Fill) Palm Beach County, FL	D.O File No	16-38,264 dated Jan 2002 9495 sheets + cover

(End of clause)

252.236-7002 OBSTRUCTION OF NAVIGABLE WATERWAYS. (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.).

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

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

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

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

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

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

(i) Actual mobilization costs at completion of mobilization:

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

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

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

(End of clause)

252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for --

(1) Furnishing all plant, labor, equipment, appliances, and materials; and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation subpart 42.5.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

-----  
(Official's Name)

-----  
(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAY 2002)

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

(1) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

(2) "Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if--

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery

schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

- (1) Type, weight, and cube of cargo;
- (2) Required shipping date;
- (3) Special handling and discharge requirements;
- (4) Loading and discharge points;
- (5) Name of shipper and consignee;
- (6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

- (1) Prime contract number;
- (2) Name of vessel;
- (3) Vessel flag of registry;
- (4) Date of loading;
- (5) Port of loading;
- (6) Port of final discharge;
- (7) Description of commodity;
- (8) Gross weight in pounds and cubic feet if available;
- (9) Total ocean freight in U.S. dollars; and
- (10) Name of the steamship company.

(f) The Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

- (1) No ocean transportation was used in the performance of this contract;
- (2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;
- (3) Ocean transportation was used, and the Contractor had the written consent of the Contracting

Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY
_____	_____	_____
_____	_____	_____
_____	_____	_____
TOTAL	_____	_____

(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h), in subcontracts that exceed the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(End of clause)

#### 252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(End of clause)

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SECTION 01000

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## SECTION 01000

## GENERAL REQUIREMENTS

## PART 1 GENERAL

## 1.1 REFERENCES

The publication listed below forms a part of this specification to the extent referenced. The publication is referred to in the text by basic designation only.

## ENGINEERING MANUALS (EM)

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

## 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

Hurricane and Severe Storm Plan; G|COR

Refer to paragraph HURRICANE AND SEVERE STORM PLAN below.

Land Based Staging and Access Route Plan; G|COR

Refer to subparagraph "Land-Based Staging (Off Island)" below.

## SD-07 Certificates

Critical Lift Plan; G|COR

Submit a Plan for non-routine crane lifts whenever crane loads meet or exceed 75 percent of crane load capacity in any configuration to comply with EM 385-1-1. Refer to paragraph CRITICAL LIFT PLAN OPERATION below.

## 1.3 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

Read this paragraph in conjunction with the Clause COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (FAR 52.211-10) of Section 00700 CONTRACT CLAUSES.

a. In addition to the above, refer to paragraph ORDER OF WORK below.

## 1.4 LIQUIDATED DAMAGES-CONSTRUCTION

Refer to the Clause LIQUIDATED DAMAGES-CONSTRUCTION (SEP 2000) (FAR 52.211-12) of Section 00700 CONTRACT CLAUSES.

## 1.5 ORDER OF WORK

The Contractor shall complete all construction which includes, but is not limited to, revegetation associated with the Shallow Water Reef and Lagoon on southeast Peanut Island within the first 365 calendar days of this contract. Spoil material excavation and removal, levee construction, west Peanut Island construction, and Lake Worth Wetland Restoration (Fill) may be constructed concurrently.

### 1.5.1 Work Restrictions and Noise Control

All hauling, excavating and filling equipment, barges, boats and tugs used for this work shall be equipped with satisfactory mufflers or other noise abatement devices. The Contractor shall conduct his operations so as to comply with all Federal, State and local laws pertaining to noise. The use of horns and whistle signals shall be held to the minimum necessary in order to ensure as quiet and safe operation as possible.

## 1.6 PHYSICAL DATA

Read this paragraph in conjunction with the Clause PHYSICAL DATA (FAR 52.236-4) of Section 00700 CONTRACT CLAUSES.

### 1.6.1 Physical Conditions

The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys and/or by core borings, as well as a muck depth survey. When the indicated physical conditions are the result of site investigations by core borings, the core boring logs and laboratory data (as well as the muck depth survey and sample analysis) are appended to the end of this Section (refer to Volume 2 of 2 of the Specifications) and the core boring and muck depth survey locations are shown on the drawings. While the Government's borings are representative of subsurface conditions at their respective locations and vertical reaches, local variations characteristic of the rocks and subsurface materials of this region are to be expected. The material recovered from the core borings and the muck sample taken at Lake Worth Wetland Restoration (Fill) Site are not available for inspection.

### 1.6.2 Location

Peanut Island lies within the north-central Lake Worth Lagoon, Section 34, Township 42 South, Range 43 East, Palm Beach County, Florida. Peanut Island is bordered to the east by the Lake Worth Inlet and to the west by the Intracoastal Waterway and the Port of Palm Beach. The Lake Worth Wetland Restoration (Fill) Site is located approximately 10.5 miles south of Peanut Island in south Lake Worth Lagoon. The site is bordered to the west by Lake Worth Municipal Golf Course and to the east by the Intracoastal Waterway; Sections 15 and 22, Township 44 South, Range 43 East.

### 1.6.3 Weather Conditions

The project area is subject to tropical storms and hurricanes from June through November and to windy and/or rainy weather during any time of the year. The climate of the area is essentially subtropical, marine. Temperatures below freezing are rare. The wet season in the project area is from May through October. In general, the winter months constitute the dry season and rainfall is usually associated with mid-latitude systems

(fronts and low pressure systems) and is distributed in a spatially uniform pattern. The summer months comprise the wet season and rainfall is closely associated with convective activity. These rainfall events are normally of short duration and amounts are quite variable spatially. Occasionally, daily rainfall in the dry season can be quite heavy as mid-latitude systems penetrate into Florida. Dangerous thunderstorms can occur at any time of the year. The average number of days per calendar month with rainfall equal to, or greater than 0.1 inch is provided in paragraph TIME EXTENSION FOR UNUSUAL SEVERE WEATHER below. This information was obtained from the NOAA rain gage located closest to Peanut Island in Stuart, Florida, at Latitude 27 degrees 13 minutes N. and Longitude 80 degrees 15 minutes W. The data were obtained from "Climatology of the United States No. 20, Climatic Summaries for Selected Sites in Florida" published by the National Climatic Center, NOAA, for the period of record from 1951 through 1980.

It shall be the Contractor's responsibility to obtain information concerning rain and wind. The publication "Local Climatological Data - Monthly Summary" published by NOAA, Asheville, North Carolina, contains climatological and meteorological observations and data, including hourly wind speed and direction observations for Miami International Airport, Florida. The Annual Summary gives a summary of the observations for the period of record. This publication is available for review in the office of the U.S. Army Corps of Engineers, Jacksonville District Office, 400 West Bay Street, Jacksonville, Florida. Subscription price and ordering information are available from the National Climatic Data Center, Federal Building, Asheville, N.C. 28801.

Given the relatively sheltered location of the project site within the inlet, it is unlikely that waves of 3 feet or greater will be encountered in the area a majority of the time.

#### 1.6.3.1 Publications

The following publications include wave, wind, and tide information:

- a. East Coast of North and South America Tide Tables, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service: Provides daily tidal predictions at locations along the coastline of North and South America, including locations in the vicinity of the project. It also provides mean and spring tide ranges and mean tide levels. Some astronomical data is also included, such as time of sunrise, sunset, moonrise, and moonset. This publication is available through NOAA.
- b. U.S. Coast Pilot, Atlantic Coast: Cape Henry to Key West, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service: This publication supplements the navigation information shown on nautical charts. It also provides miscellaneous meteorological data. This publication is available through NOAA.
- c. Hindcast Wave Information for the U.S. Atlantic Coast, Wave Information Studies of U.S. Coastlines, WIS Report 30, Waterways Experiment Station, March 1993: This report presents 20-year wave hindcast summaries at various stations located along the U.S. Atlantic Ocean shoreline, including a location offshore of the project area. Available data includes wave height, period, and direction tables for two 20-year periods: 1956-1975 (excludes tropical disturbances/hurricanes), and 1976-1995 (includes tropical

disturbances/hurricanes). This report also includes summary wave and wind roses, summary wind speed and wind direction tables, summary tables of mean wave heights by month and year, largest wave heights by month and year, a statistical summary of wave data, and a table of extreme wave events. The project site is protected from direct impact from ocean waves, but other meteorological data contained in this publication may be useful. This publication is available from National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Time series listings of wave data for both 20-year periods and some summary information are available at the Waterways Experiment Station web site: <http://bigfoot.wes.army.mil/u003.html>.

d. National Data Buoy Center (NDBC) Web Site: This web site provides a wide range of real-time and archived meteorological and oceanographic buoy data collected worldwide. Data provided include wind speed, wind gusts, atmospheric pressure, air temperature, sea temperature, wave height, and wave period. In addition, a C-MAN station (station SAUF1, providing meteorological data only--no wave data) is located at the St. Augustine Beach pier, and may provide some data which is applicable to the project area. Gage readings are updated hourly and archived data is available from 1991 to present. The web site address is: <http://www.ndbc.noaa.gov/Maps/Florida.shtml>.

#### 1.6.4 Transportation Facilities

##### 1.6.4.1 Major Highways, Airports, Port Facilities, and Rail Access

Palm Beach International Airport, Port of Palm Beach, FL Turnpike and Interstate-95.

##### 1.6.4.2 Contractor Investigation

In addition to the information given in the contract drawings, the Contractor shall make his own investigation of available roads for transportation, load limits for bridges and roads, and other road conditions affecting the transportation of materials and equipment to the site. The Contractor shall investigate the availability of railroad sidings, and shall make all arrangements for use of any sidings for the delivery of any materials and equipment to be used on the work.

##### 1.6.4.3 Peanut Island Site Access

The existing site access area for barges, located at southwest Peanut Island, is shown on the drawings. The bulkhead area is subject to filling. The Contractor shall make his own investigation of access conditions and may maintenance dredge to -8.5 feet, NGVD, to provide/maintain access to site as permitted. All material removed during maintenance dredging of the barge access area shall be taken to the Lake Worth Wetland Restoration Project (fill site). Additional island access areas are within the permitted footprint and to the permitted depths of the proposed inlets to the tidal pond (west Peanut Island) and reef (southeast Peanut Island). The Contractor may seek to further modify these areas, but shall assume responsibility for all items and costs, including permits and approvals to modify access areas and proposed inlets outside of the currently permitted depth and footprint. The drawings indicate permitted design depths. Access to the site is prohibited through areas where construction and restoration are complete (see paragraph ORDER OF WORK above).

#### 1.6.4.4 Land-Based Staging (Off Island)

It shall be the Contractor's responsibility for securing a land-based staging and loading area. Obtaining leases, rights of entry, and other real estate rights is also the Contractor's responsibility. Obtaining permits and any other environmental clearances needed for use of these areas, and transit routes to these areas, is also the Contractor's responsibility. The following are nearby sites that may be available with proper site preparation and within local permitting constraints and ordinances:

- a. Port of Palm Beach.
- b. Florida Power and Light (FP&L) parcel located south of the Port of Palm Beach.
- c. Florida Inland Navigation District (FIND) managed spoil areas.
- d. The City of Lake Worth Golf Course (south end) and Bryant Park (north end).

The Contractor shall submit a Land Based Staging and Access Route Plan at the Preconstruction Conference. The plan shall contain staging location, barge routes, manatee precautions to be taken, and means of protecting adjacent seagrass and hardbottom habitat.

#### 1.6.5 Maritime Traffic

Marine Traffic in the project area consists of cruise ships, commercial, pleasure, and small recreational vessels of all types and sizes which can be accommodated by existing depths.

#### 1.6.6 Local Conditions - Water Stages and Tides

##### 1.6.6.1 Water Fluctuations

The below stated water fluctuations are for information only and are not to be utilized in conjunction with any contract related hydrographic surveying. Reference should be made to the water level datum for surveying purposes as noted on the control drawings(s) of the contract plans.

##### 1.6.6.2 Water Levels

Water levels in the project area are mainly affected by wind and tidal fluctuations in the Atlantic Ocean. The project area is also subject to storm surges from hurricanes and tropical storms from June through November. Surges from extratropical storms may affect the area during any time of the year. Tidal data for the area are provided in the following tables:

TABLE I  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE

TIDAL BENCH MARKS

FLORIDA 872 2607

## PALM BEACH, LAKE WORTH

LATITUDE: 26 degrees 44.0 minutes N  
 LONGITUDE: 80 degrees 02.5 minutes W  
 NOAA CHART: 11466 USGS QUAD: PALM BEACH

Tidal datums at PALM BEACH, LAKE WORTH are based on the following:

LENGTH OF SERIES = 12 MONTHS  
 TIME PERIOD = MAY 1970 - NOVEMBER 1971  
 TIDAL EPOCH = 1960-1978  
 CONTROL TIDE STATION = MIAMI (872 3170)

Elevations of tidal datums referred to mean lower low water (MLLW) are as follows:

HIGHEST OBSERVED WATER LEVEL (10/14/70) = 4.39 FEET  
 MEAN HIGHER HIGH WATER (MHHW) = 3.14 FEET  
 MEAN HIGH WATER (MHW) = 2.93 FEET  
 MEAN TIDE LEVEL (MTL) = 1.56 FEET  
 \*NATIONAL GEODETIC VERTICAL DATUM-1929  
 (NGVD) = 1.31 FEET  
 MEAN LOW WATER (MLW) = 0.19 FOOT  
 MEAN LOWER LOW WATER (MLLW) = 0.00 FOOT  
 LOWEST OBSERVED WATER LEVEL (04/24/70) = -0.89 FOOT

\*NGVD is based on elevations published in Quad 260801, February 1972, and NOS leveling of 1981.

TABLE II  
 U.S. DEPARTMENT OF COMMERCE  
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
 NATIONAL OCEAN SERVICE

## TIDAL BENCH MARKS

FLORIDA 872 2670

## LAKE WORTH PIER, ATLANTIC OCEAN

LATITUDE: 26 degrees 36.7 minutes N  
 LONGITUDE: 80 degrees 02.0 minutes W  
 NOAA CHART: 11466 USGS QUAD: PALM BEACH

Tidal datums at LAKE WORTH PIER, ATLANTIC OCEAN are based on the following:

LENGTH OF SERIES = 4 YEARS  
 TIME PERIOD = 1974-1977  
 TIDAL EPOCH = 1960-1978  
 CONTROL TIDE STATION = MIAMI BEACH (872 3170)

Elevations of tidal datums referred to mean lower low water (MLLW) are as follows:

HIGHEST OBSERVED WATER LEVEL (11/23/84) = 5.15 FEET  
 MEAN HIGHER HIGH WATER (MHHW) = 3.13 FEET  
 MEAN HIGH WATER (MHW) = 2.98 FEET  
 MEAN TIDE LEVEL (MTL) = 1.57 FEET

*NATIONAL GEODETIC VERTICAL DATUM-1929 (NGVD)	=	1.14 FEET
MEAN LOW WATER (MLW)	=	0.16 FOOT
MEAN LOWER LOW WATER (MLLW)	=	0.00 FOOT
LOWEST OBSERVED WATER LEVEL (03/28/71)	=	-1.47 FEET

\*NGVD is based on elevations published in Quad 260801, February 1972, and NOS leveling of 1981.

Additional information may be found at the NOAA web site:  
<http://co-ops.nos.noaa.gov/bench.html>.

#### 1.6.7 Subsurface Investigations

Refer to core boring logs and laboratory data appended to the end of this Section (refer to Volume 2 of 2 of the Specifications).

#### 1.6.8 Obstruction of Channel

The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917.

The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of any vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon completion of the work the Contractor shall promptly remove his plant, including ranges, buoys, piles, and other marks placed by him under the contract in navigable waters or on shore.

### 1.7 LAYOUT OF WORK

#### 1.7.1 Established Monuments

The Government has established monuments, control data and elevations for the work site(s) as indicated on the contract drawings. Control monument descriptions are appended to the end of this Section.

#### 1.7.2 Layout

From the monuments, control data and elevations established by the Government, the Contractor shall complete the layout of 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, subject to such modifications as the Contracting Officer may require to meet changed conditions or as a result of necessary modifications to the contract work.

#### 1.7.3 Survey

The Contractor shall furnish, at his own expense, such stakes, templates, platforms, equipment, tools and material, and all labor as may be required in laying out any part of the work from the monuments, control data and elevations established by the Government. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them, and if such marks are destroyed by the Contractor or through his negligence,

prior to their authorized removal, they may be replaced by the Contracting Officer, at his discretion, and the expense of replacement will be deducted from any amounts due or to become due the Contractor. The Contracting Officer may require that work be suspended at any time when location and limit marks established by the Contractor are not reasonably adequate to permit checking of the work.

## 1.8 CRITICAL LIFT PLAN OPERATION

### 1.8.1 Definition of a Critical Lift

A non-routine crane lift which requires detailed planning and additional or unusual safety precautions. Critical lifts include lifts made when the load weight is 75 percent of the rated capacity of the crane; lifts which require that the load will be lifted, swung, or placed out of the operator's view; lifts made with more than one crane; lifts involving a non-routine or technically difficult rigging arrangement; or, any lift which the crane operator believes should be considered critical.

### 1.8.2 Critical Lift Plan Submittal

In such a case, the Contractor shall submit a Critical Lift Plan, hereinafter referred to as "Plan" in accordance with subparagraph "Critical lift plans" of paragraph CRANES AND DERRICKS - GENERAL of Section MACHINERY AND MECHANIZED EQUIPMENT of EM 385-1-1, prior to making a critical lift. The Plan shall be prepared by the crane operator, lift supervisor, and rigger. All personnel involved in the lift shall review and sign the Plan.

The Plan shall be documented and a copy provided to the Contracting Officer for approval. The Plan shall be submitted at the Preconstruction Conference to permit time for review and shall contain the following information:

- a. The Plan shall specify the exact size and weight of the load to be lifted as well as all crane and rigging components which add to the weight. The manufacturer's maximum load limits for the entire range of the lift, as listed in the load charts, shall also be specified.
- b. The Plan shall specify the lift geometry and procedures, including the crane position, height of the lift, the load radius, the boom length, and angle for the entire range of the lift.
- c. The Plan shall designate the crane operator, lift supervisor, and rigger, and state their qualifications.
- d. The Plan shall include a rigging plan which shows the lift points, describes rigging procedures, and hardware requirements.
- e. The Plan shall describe the ground conditions, outrigger or crawler track requirements, and if necessary, the design of mats necessary to achieve a level, stable foundation of sufficient bearing capacity for the lift. For floating cranes or derricks, the plan shall describe the operating base (platform) condition and any potential lift.
- f. The Plan shall list environmental conditions under which lift operations are to be stopped.
- g. The Plan shall specify coordination and communication requirements for the lift operation.

h. For tandem or tailing crane lifts, the Plan shall specify the make and model of the cranes, the line, boom and swing speeds, and requirements for an equalizer beam.

## 1.9 HURRICANE AND SEVERE STORM PLAN

### 1.9.1 Plan Contents

Within 20 calendar days after the Notice of Award, the Contractor shall submit as an attachment to his Accident Prevention Plan, a Hurricane and Severe Storm Plan for review and acceptance. This plan shall include but not be limited to the following:

- a. Types of storms anticipated (Winter storm, Hurricane, Tornado).
- b. Time intervals before storms when action will be taken and details of the actions taken.
- c. List of the equipment to be used on the job and its ability to handle adverse weather.
- d. List of safe harbors and the distance from the work area to these harbors and the time required to move the equipment to these harbors. Copies of letters of approval for the use of these safe harbors (local authorities, U.S. Coast Guard, etc.) where applicable.
- e. Method of securing equipment in these safe harbors.
- f. List of equipment to be utilized to make this move to safe harbors (tug boats, work boats, etc.), to include the name and horsepower of this equipment.
- g. Methods of securing equipment not moved; i.e., pipelines (floating or submerged), pumpout stations, etc.
- h. Plan of evacuation to include interim measures, i.e., immediate reaction plans to be taken for all storm occurrences, particularly sudden/flash storms.
- i. Operating procedures to be undertaken when critical dredge equipment fails during sudden and severe adverse weather conditions, to include breaking of spuds, swing wires, anchor wires, or other mooring equipment or facilities.

### 1.9.2 Sample Plan

Appended to the end of this Section is a sample Hurricane and Severe Storm Plan to be used for illustrative purposes only.

### 1.9.3 Monitoring of Weather

The Contractor shall maintain full-time monitoring of the NOAA marine weather broadcasts, and avail themselves of such other local commercial weather forecasting services as may be available. These information broadcasts shall be the Contractor's primary source in the decision process to implement action under the approved storm plan.

### 1.10 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (31 OCT 1989)

This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the Clause DEFAULT (FIXED-PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES. In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

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

1.10.1 Schedule

The following schedule of monthly anticipated adverse weather delays is based upon 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	JUL	AUG	SEP	OCT	NOV	DEC
4	4	4	4	7	9	10	9	10	9	4	4

1.10.2 Contractor Responsibility

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 Clause DEFAULT (FIXED PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES.

1.11 SCAFFOLDING REQUIREMENT

- a. The Contractor shall erect a sample of the scaffolding to be used on the project. The sample shall be a minimum 10 feet long and 2 sections high and shall demonstrate the minimum safety requirements required for the Contractor's compliance for all scaffolding used on the project.
- b. The scaffolding sample shall be approved by the Contracting Officer and shall be retained as long as scaffolding is required for construction tasks.

1.12 SAMPLE - HURRICANE AND SEVERE STORM PLAN

See APPENDIX A at the end of this Section (4 pages).

1.13 CONTROL MONUMENT DESCRIPTIONS

See APPENDIX B at the end of this Section (2 pages).

1.14 CORE BORING LOGS AND LABORATORY DATA

See APPENDIX C at the end of this Section (refer to Volume 2 of 2 of the Specifications) ( 160 pages).

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

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## SECTION 01270

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PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section Table of Contents --

## SECTION 01270

## MEASUREMENT AND PAYMENT

## PART 1 GENERAL

## 1.1 LUMP SUM PAYMENT ITEMS

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

## 1.1.1 Site Clearing - Peanut Island

## 1.1.1.1 Clearing and Grubbing (Line Item 0001AA)

Payment will be made for costs associated with or incidental to clearing and grubbing which includes clearing, grubbing, trimming and cutting of vegetation into sections for chipping, burning or disposal. Includes costs associated with or incidental to chipping and stockpiling for mulch, burning with air curtain incinerator and removal/disposal costs (off site) for material not chipped or burned. See Section 02230 CLEARING AND GRUBBING.

## 1.1.1.2 Selective Clearing (Line Item 0001AB)

Payment will be made for costs associated with or incidental to clearing which includes selective clearing, grubbing when possible, trimming and cutting of vegetation into sections for chipping, burning or disposal. Includes costs associated with or incidental to chipping and stockpiling for mulch, burning with air curtain incinerator and removal/disposal costs (off site) for material not chipped or burned. See Section 02230 CLEARING AND GRUBBING.

## 1.1.1.3 Demolition/Disposal (Line Item 0001AC)

Payment will be made for costs associated with or incidental to demolition and removal of fencing, pathways, concrete in areas to be excavated, and relocation of usable fencing, as needed, for site security. Includes costs associated with or incidental to removal/disposal costs (off site) of unused fencing and pathway materials. See Sections 02220 DEMOLITION and 02230 CLEARING AND GRUBBING.

## 1.1.2 Site Clearing - Lake Worth Wetland Restoration (Fill) Site

## 1.1.2.1 Selective Clearing (Line Item 0002AA)

Payment will be made for costs associated with or incidental to clearing which includes selective clearing, grubbing when possible, trimming and cutting of vegetation into sections for removal/disposal off site. See Section 02230 CLEARING AND GRUBBING.

1.1.2.2 Demolition/Disposal (Line Item 0002AB)

Payment will be made for costs associated with or incidental to seawall/riprap demolition and placement of the material into the fill site. See Sections 02220 DEMOLITION and 02230 CLEARING AND GRUBBING.

1.1.3 Excavate (Peanut)/Transport/Fill (Lake Worth Wetland Restoration) - Turbidity Control and Monitoring (Line Item 0003AB)

Payment will be made for costs associated with or incidental to controlling turbidity; turbidity curtains/anchors for turbidity control and protection of seagrass communities at the Peanut Island and Lake Worth Wetland Restoration (Fill) Sites; and, obtaining, analyzing, and reporting the results of monitoring for turbidity. See Sections 01355 ENVIRONMENTAL PROTECTION; 01411 TURBIDITY AND DISPOSAL (FILL) MONITORING; and, 02320 FILLING AND LAKE WORTH WETLAND RESTORATION.

1.1.4 Y-Groin (SE Peanut) (Line Item 0007)

Payment will be made for costs associated with or incidental to cast-in-place concrete pavement for the construction of the Y-Groin (located on SE Peanut), which includes concrete materials, reinforcement, miscellaneous embedded materials, and equipment, and performing all labor for the forming, manufacture, placing, finishing, curing and protection of concrete in these structures. See Section 03300 CAST-IN-PLACE CONCRETE. Payment for stone protection and concrete piles associated with construction of the Y-Groin shall be covered separately under Line Items 0004 and 0006.

1.1.5 Pile Crib Breakwater (SE Peanut) (Line Item 0008)

Payment will be made for costs associated with or incidental to cast-in-place concrete pavement, cap and beam assemblies, polymeric marine mattresses, wood decking and railing systems for the construction of the Pile Crib Breakwater (located on SE Peanut), which includes concrete and wood materials, reinforcement, miscellaneous embedded materials, and equipment and performing all labor for the forming, manufacture, placing, finishing, curing and protection of concrete in these structures; also includes fabrication, fill material, filling and installation of the polymeric marine mattresses; and, also includes wood decking and railing systems associated with Pile Crib Breakwater. See Sections 02370 POLYMERIC MARINE MATTRESS; 02491 PIER TIMBERWORK; and, 03300 CAST-IN-PLACE CONCRETE. Payment for stone protection and concrete piles associated with construction of the Pile Crib Breakwater shall be covered separately under Line Items 0004 and 0006.

1.1.6 Observation Deck/Swimming Platform (SE Peanut) (Line Item 0009)

See Sections 02457 ROUND TIMBER PILES; 02460 UNIFLOAT CONCRETE FLOATING DOCK SYSTEM; and, 02491 PIER TIMBERWORK.

1.1.6.1 Observation Deck (Line Item 0009AA)

Payment will be made for costs associated with or incidental to

construction of the Observation Deck which includes land connections, woodwork, ramps and timber pilings.

1.1.6.2 Swimming Platform (Line Item 0009AB)

Payment will be made for costs associated with or incidental to construction of the Swimming Platform which includes floating swimming platform, woodwork, lifting (swimmer) ladders, and gangway ramp up to and including connecting hinge to Observation Deck. Payment for Observation Deck shall be covered separately under Line Item 0009AA above. Payment for concrete piles associated with construction of the floating swimming platform shall be covered separately under Line Item 0006AE below.

1.1.7 Pre-Fabricated Bridges (SE Peanut)

1.1.7.1 Bridges Nos. 1, 2, and 3 (Line Item 0010AA)

Payment will be made for costs associated with or incidental to construction and placement of the pre-fabricated bridges and land connections, which includes concrete and wood materials, reinforcement, miscellaneous embedded materials, and equipment, and performing all labor for the forming, manufacture, placing, finishing, curing and protection of concrete in these structures. See Sections 02491 PIER TIMBERWORK; 02850 PRE-FABRICATED BRIDGES; and, 03300 CAST-IN-PLACE CONCRETE. Payment for concrete piles associated with construction of the Pre-fabricated Bridges shall be covered separately under Line Item 0006.

1.1.7.2 Floating Debris Screens and Timber Pilings With No Boating Signage (Line Item 0010AB)

Payment will be made for costs associated with or incidental to construction and placement of the wooden timber piles and floating debris screens; and, wooden timber piles with "No Boating" signage placed in the vicinity of the Pile Crib Breakwater as shown on the contract drawings. See Section 02457 ROUND TIMBER PILES.

1.1.8 Floating Docks/Land Connections (W Peanut) (Line Item 0011)

Payment will be made for costs associated with or incidental to construction of the floating docks and land connections (W Peanut), which includes woodwork and gangway. See Sections 02491 PIER TIMBERWORK and 02460 UNIFLOAT CONCRETE FLOATING DOCK SYSTEM. Payment for concrete piles associated with construction of the Floating Dock System shall be covered separately under Line Item 0006.

1.1.9 Mangrove Boardwalk (W Peanut) (Line Item 0012)

Payment will be made for costs associated with or incidental to construction of the mangrove boardwalk decking/structure, timber pilings, and land connections. See Sections 02457 ROUND TIMBER PILES and 02491 PIER TIMBERWORK.

1.1.10 Vehicle Roadway (SE and W Peanut) and Pedestrian Pathway (SE Peanut) (Line Item 0013)

Payment will be made for costs associated with or incidental to construction of the vehicle roadways, drainage system and pedestrian pathway, which includes salvaging existing pavers for re-use in new roadways, supplemented by supply and placement of new pavers, tabby

concrete pathway, paving and grading, curbs, gutters, guardrails; utility relocation; remove/install water service; relocate/install lights; provide/install new lights; drainage boxes, piping and exfiltration trench; and, erosion control matting (SE Peanut only). See Sections 01000 GENERAL REQUIREMENTS; 02316 EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITIES SYSTEMS; 02510 WATER DISTRIBUTION SYSTEM; 02721 SUBBASE COURSES; and, 02780 CONCRETE BLOCK PAVEMENTS.

#### 1.1.11 Levee Construction - Peanut Island

##### 1.1.11.1 Select Fill Uncompacted (Line Item 0014AB)

Payment will be made for costs associated with or incidental to the placement of select fill material as required in uncompacted backfills as described in the contract plans and specifications. Payment shall constitute full compensation for furnishing all labor, equipment and material, and performing all operations necessary to complete this item of work. This includes, but is not limited to, excavation; transportation, including temporary construction haul roads; gradation and distribution of material; foundation preparation; material placement and wheel compaction; moisture control; and, surveys. See Section 02330 LEVEE CONSTRUCTION.

##### 1.1.11.2 Paving and Drainage (Line Item 0014AC)

Payment will be made for costs associated with or incidental to the construction of the Perimeter Road, Perimeter Road Stub, Crest Road Connection and Levee Drainage Swales, which includes associated erosion control and drainage features such as levee underdrains; perimeter road and paver brick pathway flumes; geoweb; curbing; concreting flume; concrete elliptical pile and mitered end section as described in the contract plans and specifications. Payment shall constitute full compensation for furnishing all labor, equipment and material, and performing all operations necessary to complete this item of work. This includes, but is not limited to grading; transportation; construction of temporary haul roads; gradation and distribution of material; foundation preparation; material placement and compaction; materials testing; moisture control; and, surveys. See Sections 02330 LEVEE CONSTRUCTION; 02373 SEPARATION/FILTRATION GEOTEXTILE (FILTER FABRIC); 02380 STONE PROTECTION; 02630 STORM-DRAINAGE SYSTEM; 02722 AGGREGATE AND/OR GRADED-CRUSHED AGGREGATE BASE COURSE; and, 03300 CAST-IN-PLACE CONCRETE.

##### 1.1.11.3 Weirs and Boardwalk (Line Item 0014AD)

Payment will be made for costs associated with or incidental to construction of the Levee Weirs and Boardwalk and includes the entire discharge structure and piping as described in the contract plans and specifications. Payment shall constitute full compensation for furnishing all labor, equipment and material, and performing all operations necessary to complete this item of work. This includes, but is not limited to, fabrication of the discharge structure; excavation; transportation, including construction of temporary haul roads; gradation; distribution and disposal of material; foundation preparation; construction of structures; material placement and compaction; materials testing; moisture control; and, surveys. See Sections 02330 LEVEE CONSTRUCTION; 02630 STORM-DRAINAGE SYSTEM; 02631 WEIR DRAINAGE SYSTEM; 06130 TIMBER STRUCTURES FOR WEIR; and, 06131 ROUND TIMBER PILE FOR WEIR.

##### 1.1.11.4 Perimeter Fence Purchase/Installation (Line Item 0014AE)

Payment will be made for costs associated with or incidental to the construction of the Perimeter Fence as described in the contract plans and specifications. Payment shall constitute full compensation for furnishing all labor, equipment and material, and performing all operations necessary to complete this item of work. This includes, but is not limited to, excavation; transportation, including construction of temporary haul roads; construction of fencing; distribution and disposal of material; and, surveys. See Section 02830 FENCING.

#### 1.1.12 Revegetation/Landscaping

##### 1.1.12.1 Peanut Island (Line Item 0015AA)

Payment will be made for costs associated with or incidental to the purchase, transportation, installation, fertilizing, watering, staking, mulching, monitoring, maintenance and replacement of upland and wetland plants and sod at the Peanut Island Site (including Containment Levee). The Contractor shall give the Contracting Officer 24-hour notice for inspection and approval of all plant material prior to installation to insure that the plants meet all required specifications. The Contracting Officer or his designee shall reject plants that do not meet specifications. The Contractor shall supply the required number of replacement plants as necessary to meet the specifications at no additional cost to the Government. The Contractor shall spread a 6-inch layer of mulch over the Maritime Hammock planting area from chipped material generated by clearing and grubbing trees on Peanut Island. The Contractor shall be responsible for supplying additional mulch if mulch stockpile from clearing and grubbing operation is insufficient to cover Maritime Hammock planting area. All plant species to be purchased, transported and installed within the scope of this project are shown in 02935 REVEGETATION, Appendix A. See Sections 02230 CLEARING AND GRUBBING; 02922 SODDING; and, 02935 REVEGETATION.

##### 1.1.12.2 Lake Worth Wetland Restoration (Fill) Site (Line Item 0015AB)

Payment will be made for costs associated with or incidental to the purchase, transportation, installation, fertilizing, watering, staking, monitoring, maintenance and replacement of wetland plants and sod at the Lake Worth Wetland Restoration (Fill) Site. The Contractor shall give the Contracting Officer 24-hour notice for inspection and approval of all plant material prior to installation to insure that the plants meet all required specifications. The Contracting Officer or his designee shall reject plants that do not meet specifications. The Contractor shall supply the required number of replacement plants as necessary to meet the specifications at no additional cost to the Government. All plant species to be purchased, transported and installed within the scope of this project are shown in Vegetation Table appended to the end of Section 02935 REVEGETATION. See Sections 02922 SODDING and 02935 REVEGETATION.

#### 1.1.13 Mobilization and Demobilization (Line Item 0016)

Payment will be made for costs associated with or incidental to mobilization and demobilization and establishment of initial project management and coordination. See Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION of Section 00700 CONTRACT CLAUSES and Section 01310 ADMINISTRATIVE PROCEDURES.

#### 1.2 UNIT PRICE PAYMENT ITEMS

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

1.2.1 Excavate (Peanut)/Transport/Fill (Lake Worth Wetland Restoration) - Excavate/Transport/Fill (Line Item 0003AA)

1.2.1.1 Payment

Payment will be made for costs associated with or incidental to rough grading/dressing cleared areas for pre-excavation survey; excavation and transportation of fill (Peanut Site), including barricades and signs; debris removal; rock removal/disposal; protection of existing utilities, facilities, and resources; relocation of existing BellSouth telephone cable; transportation and disposal of satisfactory fill material by barge (with binwalls) at Lake Worth Wetland Restoration (Fill) Site, constructing submerged spoil dikes, constructing the profile and final dressing; monitoring manatees; providing and maintaining access to the work site(s) and fill area(s); noise control; and, debris removal. See Sections 01355 ENVIRONMENTAL PROTECTION; 01411 TURBIDITY AND DISPOSAL (FILL) MONITORING; 02300 EARTHWORK; and, 02320 FILLING AND LAKE WORTH WETLAND RESTORATION (FILL).

1.2.1.2 Measurement

a. The quantities shall be computed by the Government in accordance with Clause QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES. Measurement of quantity excavated for pay purposes will be based on original and final cross sections made on the section indicated on the drawings. The Contractor shall give 3 calendar days advance notice, in writing, to the Contracting Officer of the need to perform the original and final surveys. Quality Control Surveys shall be the responsibility of the Contractor. Monthly partial payments will be based on approximate quantities determined by the Contractor's survey of the excavation and removal of material (from Island) accomplished and in accordance with Clause QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES.

b. Measurements will be based on a unit price for excavation to specified grades with proper compaction within tolerance. Project volumes will be calculated by the Government, using digital terrain modeling techniques, to compare pre-construction conditions with post-construction surveys. The pre-construction survey shall be conducted by the Government post-clearing. The measurements will include authorized excavation of sand, authorized excavation of unsatisfactory subgrade soil, and the volume of loose, scattered rocks and boulders collected within the limits of the work; allowance will be made on the same basis for selected backfill ordered as replacement. 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. The Contractor shall give 10 days advance notice, in writing, to the Contracting Officer of the need for a post-construction survey for final volume calculation and payment.

c. The volume computed for partial payments shall be based on Contractor surveys on Peanut Island to determine quantities excavated and removed from Peanut Island, less the quantity used in levee construction. Stockpiled material shall not qualify for payment.

d. The 250-foot Acceptance Sections at the Lake Worth Wetland Restoration (Fill) Site shall be filled to template as determined by acceptance surveys. The Contractor may only work on 2 contiguous Acceptance Sections at one time; with 1 section being rough filled, while 1 section is fine graded for rock placement, planting prior to acceptance survey. The Acceptance Section survey shall be conducted on 50-foot east/west transects, performed by the Contractor and approved by the Contracting Officer prior to the Contractor proceeding to work in a third Acceptance Section.

#### 1.2.1.3 Unit of Measure

Cubic yard.

#### 1.2.2 Stone Protection - Peanut Island (Line Items 0004AA, 0004AB, and 0004AC) and Stone Protection - Lake Worth Wetland Restoration (Fill) (Line Item 0005AA)

##### 1.2.2.1 Payment

Payment for stone satisfactorily placed will be made at the applicable contract unit price for Armor Stone. Price and payment shall constitute full compensation for furnishing, hauling, handling, placing, and maintaining the stone until final acceptance by the Government. No separate payment will be made for the stockpiling of stone and all cost in connection with stockpiling shall be included in the applicable contract unit price for stone. See Section 02380 STONE PROTECTION. Payment for geotextile (filter fabric) associated with armor stone shall be covered under Line Items 0004AF and 0005AB.

##### 1.2.2.2 Measurement

Stone will be measured for payment by the ton as determined by barge displacement, certified railroad weights, where direct placement into structure(s) is practicable, or by weighing by the truckload on approved scales meeting the requirements of subparagraph "Truckload" below.

a. Truckload: Each truckload will be weighed to the nearest 0.1 ton and the final quantity rounded to the nearest whole ton. Stone will be measured for payment by weighing on approved scales before being placed in the work. Scales shall be of sufficient length to permit simultaneous weighing of all axle loads and shall have an accuracy within 0.2 percent throughout the range of the scales. The scale's accuracy shall conform to the applicable requirements of NIST HB 44 and shall be certified by an inspector of the State Inspection Bureau charged with scales inspection within the State in which the project is located prior to weighing any stone. The scales shall be capable of printing a weight ticket including time, date, truck number, and weight. If commercial scales are readily available in close proximity (within 10 miles) of site of work, documentation shall be submitted

certifying that the scales meet the requirements of the specification. The Contracting Officer may elect to accept certified railroad weights or weight certificates furnished by a public weigh master in lieu of scale weights at the jobsite. Scales will be checked and certified before hauling stone weighed under this contract.

b. Barge or Vessel Load:

(1) If delivered by barge or vessel, stone will be measured for payment by the Contracting Officer by weight determined by displacement. The Contractor shall furnish the Contracting Officer a vessel displacement table not less than 10 work days prior to unloading the stone from any vessel. Each table submitted shall show the name and/or number of the vessel owner, the name of the fabricator, and the certification and date of certification of the person or firm preparing the table. The Contractor shall furnish with the vessel displacement tables a drawing or sketch of each vessel, dimensioned in sufficient detail to permit checking of the tables. The drawings shall show, as a minimum, the length, width, depth of the vessel, and dimensions of the rake or rakes. Each such table shall have its accuracy certified by a person or firm, other than the Contractor, customarily performing this service. Each table submitted shall contain, in parallel columns, the freeboard of the vessel in feet and tenths from zero to the full depth of the vessel and the corresponding gross displacement to the nearest ton. Each vessel shall be suitably marked with two displacement gaging locations on each side near each end of the vessel. Each gaging location shall be marked by a line perpendicular to the edge of the vessel, 4 inches wide and 1 foot long, on both the deck and side of the vessel. Vessels with rakes shall have the displacement gaging lines placed at each corner of the box section between the rakes. If a vessel has a box end or ends, the gaging locations shall be placed approximately 4 feet from the box end(s). The freeboard will be measured at the gaging locations and the displacement determined by the use of "STANDARD VESSEL TABLES" from the average of these measurements. The displacement will be determined before and after being unloaded and the difference between these values shall be the quantity delivered. Vessels shall be loaded so that the readings taken at the gaging locations do not vary more than 1.5 feet port to starboard fore and aft and do not vary more than 0.5 feet port to starboard. If such is not the case, the Contractor shall trim the carrier by shifting the stone until this limit is reached, before the measurement will be accepted. All carriers used in transporting stone shall be free of leaks such as would render accurate gauging difficult. Facilities for inspecting the hold of each carrier to determine whether leakage is occurring shall be provided. Each carrier shall also be provided with adequate pumping facilities, and if water is found to be accumulating in the hold, the carrier shall be pumped dry before each gaging, both before and after unloading. Lightening by pumping or by transfer of crew or supplies will not be permitted while stone is being transferred.

(2) If vessel tables are furnished for fresh water and if the Contractor believes that vessel displacement measurements made within the contract limits of the work are being taken in water that has salinity, he will have the option of obtaining water samples and determining densities or unit weights of these samples.

These water samples shall be taken in accordance with ASTM D 3370 (Practice A - Grab Samples) at depths of 4 feet and 8 feet in the area where measurements are made. Water sampling shall be performed when the vessels are measured for quantities, both when fully loaded and when empty. Water samples shall be taken by the Contractor and witnessed by the Contracting Officer with the use of "Polypro" 2000 ml water sampler, or equal. Densities shall be determined as specified in ASTM D 1429 (Method D - Hydrometer Method). Testing shall be done for the Contractor by a certified testing laboratory, and test results certified by the laboratory. After review and approval of the test results by the Contracting Officer, the average of the densities obtained at 4 feet and 8 feet will be used as the suitable salt water conversion factor. In all calculations, the unit weight of 62.4 pounds per cubic foot will be used for fresh water.

c. Determination of Excess Stone: All stone outside the limits and tolerances of the cross sections of the structure, except variations so minor as not to be measurable, will be deducted from the quantity of new stone for which payment is to be made. Weight of excess stone will be determined from the cross sections obtained by the method provided for in subparagraph "Final Surveys" below, on the basis that the cubic feet of volume (including voids) for each type of stone, as listed in the Table in subparagraph "Factors Used for Converting In-Place Volume to Weights" of Section 02380 STONE PROTECTION, is equal to one ton or 2,000 pounds for the bulk specific gravity and percentage of voids shown. If the bulk specific gravity of the stone furnished or the percentage of voids is other than as listed below, the cubic feet of volume equaling 2,000 pounds shall be recomputed as described in subparagraph "Revision of Bidding Schedule Quantities" of Section 02380 STONE PROTECTION. Should any excess stone be disclosed above the tolerance line as defined in paragraph CONSTRUCTION TOLERANCES of Section 02380 STONE PROTECTION, its volume will be computed by the average end area method, based upon the cross section in the following manner. The average end area of excess stone above the tolerance line for 2 successive cross sections, multiplied by the distance between the cross sections will be accepted as the volume. The Contractor will not be required to remove such excess stone and deductions for the weights thereof will be made from contract payments for new stone. In addition to the above, stone, which has been delivered to the site and has been lost or wasted or otherwise not properly incorporated into the final required work, shall be deducted from the quantity for which payment is to be made.

d. Final Surveys: Survey work and measurements required for determination of excess volume computations for stone materials shall be performed by the Contractor in the presence of the Contracting Officer. The Contractor shall notify the Contracting Officer not less than 3 days in advance of each survey. In the event of unavailability of the Contracting Officer, the Contractor shall perform the survey and certify to the Contracting Officer that it complies with the specifications. Cross section surveys shall be taken perpendicular to the axis of the structures. Elevations and soundings shall be taken on lines 25 feet apart measuring along the structure reference line, with the readings at 5-foot intervals and at breaks in the grade along the line. Other survey intervals and readings may be used if deemed appropriate or advisable by the Government's on-site representative. Additional cross sections, elevations, and soundings may be taken if determined necessary by the Government's on-site representative.

Determination of quantities will be made by the Government's on-site representative and having once been made, will not reopen, except on evidence of collusion, fraud or obvious error. Prior to performing any work under this Section, the Contractor shall coordinate all operations with the Government's on-site representative so that excess volume surveys will be made at the appropriate time. The surveys made under subparagraph "Check Surveys" of Section 02380 STONE PROTECTION may be used when deemed appropriate by the Government's on-site representative, as part of the surveys required herein. Stone quantity computations shall be based entirely upon weights of new stone as determined from carrier displacement or certified scale weight tickets. Existing stone is excluded from measurement and payment.

#### 1.2.2.3 Unit of Measure

Ton.

#### 1.2.3 Bedding Stone and Core Stone (Line Items 0004AD and 0004AE)

##### 1.2.3.1 Payment

Payment for stone placed as bedding and core will be made at the applicable contract unit price. Price and payment shall include all costs of furnishing, hauling, placing and maintaining the bedding and core material until placement of the armor stone is completed and accepted. No payment will be made for excess thickness of bedding material, nor for material required to replace subgrade material lost by wave action, overexcavation or otherwise. See Section 02380 STONE PROTECTION. Payment for geotextile (filter fabric) associated with bedding stone and core stone shall be covered under Line Item 0004AF.

##### 1.2.3.2 Measurement

Stone placed for bedding layers or as core will be measured for payment by the ton. Quantities will be computed to the nearest whole ton. Stone will be measured for payment, in the presence of the Contracting Officer, by weighing on approved, accurately calibrated scales furnished by and at the expense of the Contractor. The scales shall be capable of printing a weight ticket including time, date, truck number, and weight.

##### 1.2.3.3 Unit of Measure

Ton.

#### 1.2.4 Geotextile (Filter Fabric) (Line Items 0004AF and 0005AB)

##### 1.2.4.1 Payment

Payment for geotextile (filter fabric) installed and accepted will be made at the applicable contract unit price. Price and payment shall include the cost of materials equipment, installation and other costs associated with placement of the geotextile (filter fabric). See Section 02373 SEPARATION/FILTRATION GEOTEXTILE (FILTER FABRIC).

##### 1.2.4.2 Unit of Measure

Square yard.

#### 1.2.5 Concrete Pilings (Line Items 0006AA, 0006AB, 0006AC, 0006AD, and

0006AE)

The contract price for piling shall be a principal sum based on TABLE 1.

TABLE 1. PILE SCHEDULE FOR BIDDING

Location	Number	Size	Capacity	Length
Pile Crib Breakwater (Test Piling)	3	18" x 18"	SEE PLAN	
Pile Crib Breakwater	64	18" x 18"	70 tons	See Plan
Swimming Platform	4	18" x 18"	35 tons	45
Floating Dock	16	12" x 12"	25 tons	40
Pre-fabricated Bridges	24	14" x 14"	35 tons	40
Fishing Pier (Y-Groin)	24	14" x 14"	35 tons	35

#### 1.2.5.1 Variations in Pile Quantities

From the results of laboratory tests on soil samples and data obtained as a result of driving and loading the test piles specified herein, the Contracting Officer will determine and will list for the Contractor "calculated" pile tip elevations and the minimum driving resistance for the piling requiring testing. The Contracting Officer reserves the right to increase or decrease the total length of piles to be furnished and installed by changing the pile locations or elevations, requiring the installation of additional piles, or directing the omission of piles from the requirements shown and specified. Should the total pile length installed vary from that specified as the basis for bidding because of added or omitted piles or variations in the pile lengths, the principal sum shall be adjusted by the applicable contract unit price per linear foot (by size).

#### 1.2.5.2 Variations in the Number of Pile Load Tests

The Contracting Officer reserves the right to increase or decrease the number of pile load tests from that specified for the basis of bidding. For changes in the number of load tests required, the principal sum price shall be adjusted by the applicable contract unit price for "Concrete Pile Load Tests".

#### 1.2.5.3 Payment

The Contractor shall furnish, and the price shall include, all necessary equipment, tools, material, labor, and supervision required to: deliver, handle, install, and cut off the piles (including test piles); conduct the load tests; and meet the applicable contract requirements. Payment for piles will be on the basis of the lengths of the piles measured from cut off elevations to final tip elevations. No additional payment will be made for: withdrawn, damaged, rejected, or misplaced piles; any portion of a pile remaining above the cut off elevation; backdriving; cutting off piles; splicing; build-ups; or any cut off lengths of piles. Payment for load tests shall be made for each load test satisfactorily performed. See Section 02458 PRESTRESSED CONCRETE PILING.

#### 1.2.5.4 Unit of Measure

Linear foot.

#### 1.2.6 Levee Construction - Peanut Island - Select Fill Compacted (Line Item

0014AA)

1.2.6.1 Payment

Payment will be made for select fill material placed as required in compacted embankments as described in the contract plans and specifications. Payment shall constitute full compensation for furnishing all labor, equipment and material, and performing all operations necessary to complete this item of work. This includes, but is not limited to, excavation; transportation; construction of temporary haul roads; gradation and distribution of material; foundation preparation; material placement and compaction; materials testing; moisture control; and, surveys. See Section 02330 LEVEE CONSTRUCTION.

1.2.6.2 Measurement

Fill materials specified for embankment will be measured for payment by the cubic yard and quantities will be determined by the average end area method. The basis for measurement will be surveyed cross sections of the areas to be filled after clearing, grubbing, stripping and excavation, and the actual cross sections of the embankments constructed within the specified tolerance. Cross sections shall be performed at significant breaks in grade except that the maximum distance between cross sections shall not exceed 200 feet. Embankments not constructed to design grade and section, including allowable tolerance as indicated on the Contractor's compliance survey, will not be accepted. Volumes occupied by drainage structures will not be included in measurement of embankment for payment. Material removed as a result of the clearing, grubbing, and stripping operations will not be included in measurement of embankment for payment.

1.2.6.3 Unit of Measure

Cubic yard.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

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		01000	SD-01 Preconstruction Submittals														
			Hurricane and Severe Storm Plan		G COR												
			Land Based Staging and Access Route Plan	1.6.4.4	G COR												
			SD-07 Certificates														
			Critical Lift Plan		G COR												
		01310	SD-01 Preconstruction Submittals														
			Standard Form 100														
			List of Subcontractors														
			Signature Authority														
			Drug-Free Work Place Record														
			Accident Prevention Plan		G COR												
			Diving Plan (including Activity Hazards Analysis)		G COR												
		01320	SD-01 Preconstruction Submittals														
			Preliminary Project Schedule (PPS)		G COR												
			Initial PPS		G COR												
			SD-07 Certificates														
			Periodic Schedule Updates	3.4.3	G COR												
		01330	SD-01 Preconstruction Submittals														
			Submittal Register		G COR												
		01355	SD-01 Preconstruction Submittals														
			Environmental Protection Plan		G PD												
			SD-11 Closeout Submittals														
			Logs/Final Summary Report														

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		01355	Project Environmental Summary Sheet														
		01411	SD-03 Product Data Calibration Standard														
			SD-06 Test Reports Turbidity Monitoring														
		01451	SD-01 Preconstruction Submittals														
			Laboratory Qualifications		G COR												
			Contractor Quality Control (CQC) Plan		G COR												
			Letter of Authority														
			SD-07 Certificates														
			Qualifications		G COR												
		01500	SD-01 Preconstruction Submittals														
			Mobilization/Demobilization Plan		G COR												
			Security Plan		G COR												
			Manufacturer's Literature for Equipped Boat, Trailer, and Hand-Held Radios														
			SD-02 Shop Drawings														
			Site Layout		G COR												
			Trailer Floor Plan														
			Temporary Electric Drawings														
			SD-07 Certificates														
			Boat Operator's License														
		01780	SD-02 Shop Drawings														

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		01780	As-Built Drawings	1.2.1	G COR												
		02220	SD-01 Preconstruction Submittals														
			Work Plan		G COR												
			Notice of Barge Mobilization		G COR												
		02230	SD-01 Preconstruction Submittals														
			Site Clearing VCOR Plans; G														
			SD-07 Certificates														
			Notice of Intent to Clear and Burn Vegetation; G COR														
		02300	SD-01 Preconstruction Submittals														
			Site Excavation Plan		G COR												
			SD-06 Test Reports														
			Testing	3.11	G COR												
			SD-07 Certificates														
			Testing	3.11	G COR												
		02316	SD-06 Test Reports														
			Field Density Tests	3.4.3	G COR												
			Testing of Backfill Materials	3.4.2	G COR												
		02320	SD-01 Preconstruction Submittals														
			Notice of Intent to Fill														
			Site Filling Plan		G COR												
			Turbidity Control and Monitoring Plan														
			SD-07 Certificates														
			Pre-Fill/Acceptance Surveys		G COR												
			Notice of Misplaced Material														

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		02330	SD-01 Preconstruction Submittals														
			Shoring, Sheeting, and Bracing Plan		G COR												
			Excavation Plan		G COR												
			Plan of Operations		G COR												
			Compliance Survey														
			SD-02 Shop Drawings														
			Contractor-Furnished														
			Rights-of-Way for Drainage														
			SD-07 Certificates														
			Nuclear Density		G COR												
		02332	SD-02 Shop Drawings														
			Shop Drawings		G COR												
			SD-03 Product Data														
			Turf Reinforcement Mat	2.1	G COR												
			SD-04 Samples														
			Turf Reinforcement Mat	2.1	G COR												
			SD-07 Certificates														
			Certificate of Compliance		G COR												
		02370	SD-02 Shop Drawings														
			Details of Typical Sections and Connections		G ED												
			SD-04 Samples														
			Geogrid		G COR												
			Braid		G COR												
			Mechanical Connection Elements		G COR												

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		02370	SD-07 Certificates														
			Geogrid		G COR												
			SD-08 Manufacturer's Instructions														
			Manufacturer's Instructions		G COR												
		02373	SD-07 Certificates														
			Geotextile	2.1.1	G COR												
			SD-08 Manufacturer's Instructions														
			Manufacturing Quality Control		G COR												
			Sampling and Testing														
		02380	SD-03 Product Data														
			Armor		G COR												
			Bedding Material		G COR												
			Core Material		G COR												
			Gaging Table Data		G COR												
			SD-04 Samples														
			Stone	1.4.1	G COR												
			Stone	1.4.1.2	G COR												
			SD-06 Test Reports														
			Gradation Test	2.3.3	G COR												
			Bulk Specific Gravity		G COR												
			SD-07 Certificates														
			Armor Stone		G COR												
			Bedding Stone	2.1	G COR												
			Core Material		G COR												
			Weigh Scale Certification		G COR												
			Certified Weight Scale Tickets		G COR												

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		02457	SD-02 Shop Drawings														
			Pile Driving	3.1.2	G ED												
			SD-03 Product Data														
			Pile Driving Equipment	3.2	G ED												
			Copper Caps and Nails		G ED												
		02458	SD-02 Shop Drawings														
			Installation	3.1	G COR												
			Pile Driving	3.1.2	G COR												
			SD-03 Product Data														
			Pile Driving Equipment	3.2	G COR												
			SD-05 Design Data														
			Concrete Mix Design		G COR												
			SD-06 Test Reports														
			Field Tests and Inspections	3.3	G COR												
			SD-08 Manufacturer's Instructions														
			Precasting Manufacturer														
		02460	SD-02 Shop Drawings														
			Floating Dock System		G COR												
			SD-03 Product Data														
			Float Modules		G COR												
			SD-05 Design Data														
			Float and Anchorage Systems		G COR												
			Design Calculations		G COR												
		02491	SD-03 Product Data														
			Connectors		G COR												
			Nails		G COR												

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		02491	Bolts		G COR												
			Ladders		G COR												
			Structural Timber		G COR												
			SD-06 Test Reports														
			Delivery Inspection List		G COR												
			Timber Preservative Inspection		G COR												
		02510	SD-03 Product Data														
			Installation	3.1	G COR												
			Waste Water Disposal Method		G COR												
			Satisfactory Installation		G COR												
			SD-06 Test Reports														
			Bacteriological Disinfection		G COR												
			SD-07 Certificates														
			Manufacturer's Representative		G COR												
			Installation	3.1													
			Meters														
		02630	SD-03 Product Data														
			Placing Pipe	3.3	G COR												
			SD-07 Certificates														
			Resin Certification	2.1.1	G COR												
			Pipeline Testing	3.6	G COR												
			Hydrostatic Test on Watertight	2.5	G COR												
			Joints														
			Determination of Density	3.5.5	G COR												
			Frame and Cover for Gratings	2.3.5	G COR												
		02631	SD-02 Shop Drawings														

# SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION Environmental Restoration						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASS / SPEC / REV / APPROV	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)
		02631	Shop Drawings		G ED												
			SD-03 Product Data														
			Welding of Aluminum		G ED												
			Qualifications of Welders and Welding Operators		G ED												
			SD-06 Test Reports														
			Welding of Aluminum		G ED												
			Hydrostatic Test on Watertight Joints														
			Outflow Pipe Testing	3.5													
			SD-07 Certificates														
			Materials List		G ED												
			SD-08 Manufacturer's Instructions														
			Placing Outflow Pipe	3.3													
		02721	SD-03 Product Data														
			Equipment	1.6	G COR												
			Waybills and Delivery Tickets														
			SD-06 Test Reports														
			Sampling and Testing	1.4													
		02722	SD-03 Product Data														
			Plant, Equipment, and Tools	1.6	G COR												
			Waybills and Delivery Tickets		G COR												
			SD-06 Test Reports														
			Sampling and Testing	1.4	G COR												
			Field Density Tests	1.4.2.4	G COR												
		02780	SD-04 Samples														

**SUBMITTAL REGISTER**

CONTRACT NO.

TITLE AND LOCATION Environmental Restoration						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION REVIEW	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/ FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
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		02780	Concrete Paving Block	2.1.2	G COR												
			SD-06 Test Reports														
			Tests, Inspections and Verifications	2.2	G COR												
		02830	SD-08 Manufacturer's Instructions														
			Fencing and Gates														
		02850	SD-02 Shop Drawings														
			Prefabricated Bridges		G COR												
			Design Calculations		G COR												
			SD-03 Product Data														
			Glued Laminated Beams		G COR												
			Bridge Hardware		G COR												
			Treated Lumber		G COR												
			Signage		G COR												
			SD-07 Certificates														
			Glued Laminated Beams		G COR												
		02922	SD-03 Product Data														
			Equipment		G COR												
			Chemical Treatment Material	1.4.3.2	G COR												
			Delivery	1.4.1	G COR												
			Finished Grade and Topsoil	3.1.1													
			Topsoil	2.2													
			Quantity Check														
			Sod Establishment Period	3.5	G COR												
			Maintenance Record	3.5.3.4													
			Application of Pesticide		G COR												

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CONTRACT NO.

TITLE AND LOCATION Environmental Restoration						CONTRACTOR											
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		02922	SD-07 Certificates														
			Sod	2.1													
			Topsoil	2.2													
			pH Adjuster	2.3.1													
			Fertilizer	2.3.2													
			Organic Material	2.3.3													
			Soil Conditioner	2.3.4													
			Pesticide	2.5													
		02935	SD-01 Preconstruction Submittals														
			Qualification Data		G COR												
			SD-03 Product Data														
			Plant Fertilizers		G COR												
			Plant Species/Quantities														
			Planting Schedule														
			Plant Substitutions		G COR												
		03300	SD-02 Shop Drawings														
			Reinforcing Steel		G COR												
			Formwork		G COR												
			SD-03 Product Data														
			Waterstops		G COR												
			Materials for Curing Concrete		G COR												
			Joint Sealants		G COR												
			Joint Filler		G COR												
			Vapor Barrier		G COR												
			Epoxy Bonding Component		G COR												

**SUBMITTAL REGISTER**

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		03300	FDOT RBS Class 5 Applied Finish Coating		G COR												
			Bearing Pads		G COR												
			Elastomeric Sealant		G COR												
			Polymer Modified Mortar		G COR												
			Polyurethane Foam Fill		G COR												
			Preformed Fabric Pad		G COR												
			SD-05 Design Data														
			Concrete Mix Design		G COR												
			Curing Concrete Elements		G COR												
			Form Removal Schedule		G COR												
			Pumping Concrete		G COR												
			Silica Fume Manufacturer's Representative														
			SD-06 Test Reports														
			Concrete Mix Design		G COR												
			Fly Ash and Pozzolan		G COR												
			Ground Iron Blast-Furnace Slag Aggregates		G COR												
			SD-07 Certificates														
			Qualifications		G COR												
		05980	SD-02 Shop Drawings														
			Fabricated Work and Castings		G COR												
			SD-03 Product Data														
			Aliphatic Urethane Coating		G COR												
			Setting Compound		G COR												

**SUBMITTAL REGISTER**

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TITLE AND LOCATION Environmental Restoration						CONTRACTOR											
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		05980	SD-07 Certificates														
			Qualification of Welders		G COR												
			Installing Contractor		G COR												
		06130	SD-04 Samples														
			Samples														
			SD-07 Certificates														
			Preservative Treatment		G COR												
		06131	SD-02 Shop Drawings														
			Pile Driving														
			SD-03 Product Data														
			Pile Driving Equipment	3.2	G ED												
			Pile Driving Record Form		G ED												
			Cap Blocks		G ED												
			SD-07 Certificates														
			Driving Records														
			Preservative Treatment		G COR												
		16524	SD-02 Shop Drawings														
			Pole Installation Details		G COR												
			SD-03 Product Data														
			Lighting Fixtures	2.1	G COR												
			SD-06 Test Reports														
			Operational Test		G COR												

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## SECTION 01355

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## SECTION 01355

## ENVIRONMENTAL PROTECTION

## PART 1 GENERAL

## 1.1 SCOPE

This Section covers prevention of environmental damage as the result of construction operations under this contract and for those measures set forth in other Technical Requirements of these specifications. For the purpose of this specification, environmental damage is defined as the presence of hazardous, physical, chemical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances; affect other species, biological communities, or ecosystems; or degrade the quality of the environment for aesthetic, cultural, and/or historical purposes. The control of environmental damage requires consideration of land, water, and air, and includes management of visual aesthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.

## 1.2 REFERENCES

## 1.2.1 Miscellaneous Environmental Laws And Regulations

There are numerous environmental laws and regulations. At the Federal level, the applicable laws and regulations include compliance with the Clean Water Act (CWA); Clean Air Act (CAA); Coastal Zone Management Act (CZMA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Endangered Species Act (ESA); Fish and Wildlife Coordination Act (FWCA); Marine Protection, Research, and Sanctuaries Act (MPRSA); Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA); National Environmental Policy Act (NEPA); National Historic Preservation Act (NHPA); National Pollution Discharge Elimination System (NPDES); Research and Sanctuaries Act; Native American Graves Protection and Repatriation Act (NAGPRA); Resource Conservation and Recovery Act (RCRA); Rivers and Harbors Act (R&H); Safe Drinking Water Act (SDWA); Toxic Substance Control Act (TSCA); Wild and Scenic Rivers Act (WSRA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Code of Federal Regulations (CFRs); Executive Orders; and, Environmental Protection Agency (EPA) requirements. NEPA compliance measures specified in an Environmental Assessment (EA) or Environmental Impact Statements (EIS) are also applicable with regard to compliance.

## 1.2.2 Publication Reference(s)

The publication listed below forms a part of this specification to the extent referenced. The publication is referred to in the text by basic designation only.

## ENGINEERING MANUALS (EM)

EM 385-1-1

(1996) Safety and Health Requirements Manual

## ENGINEERING REGULATIONS (ER)

ER 1110-1-5

(1984) Plant Pest Quarantined Areas and  
Foreign Soil Samples

### 1.3 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective action taken.

### 1.4 PERMITS AND AUTHORIZATIONS

The Contractor shall obtain all needed permits or licenses. The Government will not obtain any permits for this project; see Clause PERMITS AND RESPONSIBILITIES of Section 00700 CONTRACT CLAUSES. The Contractor shall be responsible for implementing the terms and requirements of the appropriate permits as needed and for payment of all fees.

In addition to the above, the Contractor shall comply with all requirements under the terms and conditions set out in the following permit(s) and authorization(s) listed below. These permit(s) and authorization(s) are available for review by contacting the Jacksonville District, Programs and Project Management Division at 904-232-3847.

#### 1.4.1 Peanut Island Environmental Restoration

South Florida Water Management District Permit No. 50-03713-P; Effective Date: October 12, 2000; Expiration Date: October 12, 2005.

#### 1.4.2 Peanut Island Docks

U.S. Army Corps of Engineers General Permit No. SAJ-34; Effective Date: April 12, 2002; Expiration Date: March 01, 2007.

#### 1.4.3 Lake Worth Wetland Restoration (Fill)

a. South Florida Water Management District Permit No. 50-04766-P; Effective Date: February 15, 2001; Expiration Date: February 15, 2006.

b. U.S. Army Corps of Engineers Permit No. 200002515; Effective Date: April 30, 2002; Expiration Date: May 01, 2007.

#### 1.4.4 Peanut Island Barge Bulkhead

South Florida Water Management District Permit No. 50-05621-P; Effective Date: November 14, 2002; Expiration Date: November 14, 2007.

### 1.5 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|PD

Within 20 calendar days after the date of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Government will consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan no later than 30 calendar days after receipt of Notice to Proceed. Acceptance of the Contractor's plan shall not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. Acceptance of the plan is conditional and predicated on satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes to the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. The Environmental Protection Plan shall include but not be limited to the following:

a. A list of Federal, State, and local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.

b. Methods for protection of features to be preserved within authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e., trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, seagrasses, fish and wildlife, soil, historical, archeological, and cultural resources.

c. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the environmental protection plan.

d. A permit or license for and the location of the solid waste disposal area.

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

f. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.

g. Traffic control plan.

h. Methods of protecting surface and ground water during construction activities.

i. Spill prevention. The Contractor shall specify all

potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, ground, water, wetlands, or drainage areas. The plan shall specify the Contractor's provisions to be taken to meet Federal, State, and local laws and regulations regarding labeling, storage, removal, transport, and disposal of potentially hazardous substances.

j. Spill contingency plan for hazardous, toxic, or petroleum material.

k. 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.

l. Plan of borrow area(s).

m. A statement as to the person who shall be responsible for implementation of the Environmental Protection Plan. The Contractor personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.

n. Recycling and Waste Management Plan. Executive Order 12873 of 20 October 1993 requires a number of considerations in planning a project. Fallen trees should not be burned or buried. Mulching, composting, and other uses for trees should be considered. Also, recovery of metals at the job site, including aluminum cans, should be considered with proceeds to be retained by the Contractor. Non-Federal recycling and waste minimization efforts shall also be incorporated into this plan.

o. A Certification Letter must be signed acknowledging the Contractor has a copy of all permits applicable to the project and understands the conditions in the permit. The Certification Letter shall be attached to the Environmental Protection Plan. (A sample Certification Letter is appended to the end of this Section.)

#### SD-11 Closeout Submittals

##### Logs/Final Summary Report

Contractor shall submit as specified, logs and final summary report of sightings and incidents with endangered species.

##### Project Environmental Summary Sheet

Contractor shall submit within 30 days following completion of the project, a written report of the absence or occurrence of environmental incidents. In addition, for construction activities whose anticipated duration is more than one calendar year, the Contractor shall complete a sheet each May 31st (plus/minus 14 days).

#### 1.6 SUBCONTRACTORS

Assurance of compliance with this section by subcontractors shall be the responsibility of the Contractor.

### 1.7 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the aforementioned Federal, State, or local 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 proposed corrective action and take such action as may be approved. If the Contractor fails 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 time extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.

Additionally, the Contractor shall notify the Contracting Officer, in writing, of the absence or occurrence of environmental incidents, as required on the Project Environmental Summary Sheet, copy appended to the end of this Section. (Refer to paragraph SUBMITTALS above.)

### 1.8 CONTRACTOR PERSONNEL QUALIFICATIONS IN POLLUTION CONTROL

The Contractor's personnel shall be qualified to perform all phases of environmental protection, including methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and careful installation and monitoring of the project to ensure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly knowledgeable in the proper use of monitoring devices and abatement equipment as well as Federal, State, and local laws, regulations, and permits listed in the Environmental Protection Plan submitted by the Contractor. Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

### PART 2 PRODUCTS (NOT APPLICABLE)

### PART 3 EXECUTION

#### 3.1 PROTECTION OF ENVIRONMENTAL RESOURCES

For contract work, the Contractor shall comply with all applicable Federal, State, or local laws and regulations. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected at least during the entire period of this contract. The Contractor shall confine his activities to areas defined by the drawings and specifications. Deviations from drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, and alternate access routes) could result in the need for the Government to reanalyze and re-approve the project from an environmental standpoint. Environmental protection shall be as stated in the following subparagraphs.

##### 3.1.1 General Project Environmental Design and Installation Criteria

Some project sites have features that shall not be impacted in any way, including cultural, historic, or archeological features. At all sites, project plans should minimize disturbance to existing features at the site to the extent possible, including vegetative, topographic, and drainage pattern features. Wetland impacts (temporary access, detours, staging areas, and other work area impacts) to project sites should be avoided and

may require separate permitting action. Any wetlands temporarily impacted shall have its soil restored upon project completion. Expansion of previously permitted project footprints may likewise require separate permitting action.

In all cases, the design and/or installation of project system shall provide for protection of the environment during handling, installing, storing, utilizing, transporting, servicing, testing, refilling, transferring, pumping, processing, removing waste products, repairing and maintaining systems and their components. Necessary design protection shall also be considered that would prevent contamination of the environment from impacts to the system caused by storm water runoff and flooding. Retrofit of connected systems on project sites to modern environmental protection design standards shall also be considered.

In the event environmental protection measures fail, the Contractor shall implement procedures to control and correct environmental damage.

#### 3.1.1.1 Petroleum-Based Systems Environmental Design and Installation Criteria

For petroleum-based systems, a statement of site suitability shall be provided and shall include what would be necessary to prevent adverse impact to water quality; natural resources; habitat; historic, cultural, and archeological sites; and fragile local resources in the event of a fuel spill. Human error and mechanical/electrical failure of components without human intervention shall also be considered in the design with regard to spills. Additionally, appropriate noise and emissions controls shall be incorporated into the design, including vapor and exhaust controls.

At a minimum, environmental protection design requirements shall also include the following: (1) stationary tanks and piping shall have secondary containment features; (2) approved materials and corrosion protection systems shall be utilized; (3) system leaks shall be readily detected and contained without human intervention; and, (4) overfill containment systems shall be provided.

Applicable Federal, State, and local codes and requirements shall be strictly adhered to in the design, including those of the U.S. Environmental Protection Agency (EPA), the State of Florida, the South Florida Water Management District (SFWMD), and other local governing agencies such as those of counties and municipalities. In the case of the State, requirements include Chapter of the Florida Administrative Code (FAC) such as 62-17 (Approved Materials), 62-252 (Vapor Emissions), 62-296 (Emissions), 62-761 (Underground Storage Tanks), and 62-762 (Aboveground Tanks). Note that Chapters 62-761 and 62-762 of the FAC may be combined into one Chapter. Best Management Practices from the applicable agencies shall also be adhered to in the design.

#### 3.1.1.2 Sewage-Based Systems Environmental Design and Installation Criteria

In general, there shall be no waste or debris discharges of any kind for a project unless authorized by the Contracting Officer. This shall include the Contractor's providing sufficient temporary sanitary equipment and facilities for the project. The design and/or installation of temporary or permanent sewage systems shall ensure that waters will be free of effects of sewage discharges. Applicable Federal, State, or local codes and requirements regarding sewage shall be strictly adhered to in the design, such as those of the EPA and, in the case of the State, Chapter 62-620

(Wastewater Facilities) of the FAC. Best Management Practices from the applicable agencies shall also be adhered to in the design.

### 3.1.2 Protection of Land Resources

Prior to the beginning of any construction, the Contractor shall identify all land resources to be preserved or avoided within the Contractor's work area. Materials displaced into uncleared areas shall be removed. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without special permission from the Contracting Officer. The Contractor shall engage a qualified tree surgeon to perform all tree surgery. The Contractor shall be responsible to repair injuries to bark, trunk, branches, and roots of protected trees by dressing, cutting, and painting as specified for Class I Fine Pruning, of the National Arborist Association Pruning Standards for Shade Tree or as per State's Agricultural Extension Agency Guidelines, immediately as occurrences arise. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs.

#### 3.1.2.1 Work Area Limits

Prior to any construction, the Contractor shall mark the areas that are not required to accomplish all work to be performed under this contract. Isolated areas within the general work area which are to be saved and protected shall also be marked or fenced. The Contractor shall protect from damage all existing trees designated to remain. Protection of tree roots shall be provided against noxious materials in solution caused by run-off or spillage. Fires shall be located outside the canopy of protected trees. No materials, trailers, or equipment shall be stored within the drip line of any protected tree. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be visible. The Contractor shall convey to his personnel the purpose of marking and/or protection of all necessary objects.

Markers utilized to delineate the fill site shall be in accordance with United States Coast Guard (USCG) regulations and visible during night construction.

The Contractor shall thoroughly clean all construction equipment and tools at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the U.S. Department of Agriculture (USDA) regarding additional cleaning requirements that may be necessary. In addition, if this contract involves the identification, shipping, storage, testing, or disposal of soils from such a quarantined area, the Contractor agrees to comply with the provisions of ER 1110-1-5 and attachments. The Contractor agrees to assure compliance with this obligation by all subcontractors.

#### 3.1.2.2 Protection of Landscape

Trees and their roots, shrubs, vines, grasses, land forms, and other landscape features indicated and defined on the drawings to be preserved, shall be clearly identified and protected by fencing or any other approved techniques. Native vegetation within clearing and construction area(s) will be flagged by others and protected by the Contractor. Tree protection

fencing shall be placed before excavation or grading is begun and maintained in place until construction is complete. Branches of protected trees, if required, shall be removed to clear for construction and pruning shall subsequently be performed to restore the natural shape of the entire tree. Branches or roots, if required, shall be cut with sharp pruning instruments and not broken or chopped. Protected trees shall be fertilized to compensate for root loss with 6-6-6 as per manufacturer's application direction. Any damage to tree crowns or roots shall be repaired promptly after damage occurs.

a. Trench or Bore Under Trees: Where trenching for utilities is required within tree driplines, the Contractor shall hand dig under and around roots or bore under them. The Contractor shall protect roots from drying and cover exposed roots within an hour of exposure as specified in subparagraph "Excavation for Structures" below. No lateral roots which interfere with new construction shall be cut. Boring is permitted.

b. Excavation for Structures: Where excavating for new construction is required within tree drip lines, the Contractor shall hand excavate to minimize damage to root systems. The Contractor shall use narrow tine pitchforks and comb soil to expose roots. The Contractor shall relocate roots in backfill areas. If large, main lateral roots are encountered that are exposed beyond the excavation limits, the Contractor shall bend and relocate these roots without breaking or girdling. If roots are encountered immediately adjacent to new construction such that relocation is not practical, the Contractor shall saw roots approximately 3" back from the new construction, seal with tree wound dressing, and protect any exposed embankment of roots from drying by covering with straw and black plastic. The Contractor shall irrigate affected areas daily until final grade conditions are established and the exposed roots are backfilled properly for continued plant growth.

c. Replacement: The Contractor shall remove dead or damaged protected trees determined, by the Government, to be incapable of restoration to normal health growth. The Contractor shall replace each removed tree up to 4" caliper with tree of equal specie and size. For each tree removed larger than a 4" caliper, the Contractor shall replace the tree with one 4" caliper tree per 4" caliper increment or fraction thereof.

d. Grade Change: See Section 02300 EARTHWORK for method of handling grade changes at existing trees to be protected during construction.

#### 3.1.2.3 Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Except in instances where the constructed feature obscures borrow areas, quarries, and waste material areas, these areas shall not initially be totally cleared. Clearing of such areas shall progress in reasonably sized increments as needed to use the areas developed as approved by the Contracting Officer.

#### 3.1.2.4 Disturbed Areas

The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

a. Retardation and Control of Runoff: Runoff from the construction site or from storms shall be controlled, retarded, and diverted to protected drainage courses by means of diversion ditches, benches, and by any measures required by area wide plans approved under paragraph 208 of the Clean Water Act.

b. Erosion and Sedimentation Control Devices: The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as directed by the Contracting Officer. Temporary velocity dissipation devices shall be placed along drainage courses so as to provide for non-erosive flows. Temporary erosion and sediment control measures such as berms, dikes, drains, sediment traps, sedimentation basins, grassing, mulching, baled hay or straw, and silt fences shall be maintained until permanent drainage and erosion control facilities are completed and operative. For silt fences, the filter fabric is to be of nylon, polyester, propylene, or ethylene yarn of at least 50 lb/in strength and able to withstand a flow rate of at least 0.3 gal/ft sq/minute. The fabric should contain ultraviolet ray inhibitors and stabilizers and be a minimum of 45 inches in width. The toe of the fence shall be buried at least 8 inches deep to prevent undercutting and shall be secured to posts by suitable staples, tie wire, or hog rings. Posts shall have a cross section of at least 2"x4" and a minimum of 4 foot in length. Fence shall be overlapped to the next post if fabric joints are necessary.

c. Sediment Basins: Sediment from construction areas shall be trapped in temporary or permanent sediment basins in accordance with basin plans shown on the drawings. The basins shall accommodate the runoff of a local 24-hour storm. After each storm, the basins shall be pumped dry and accumulated sediment shall be removed as necessary to maintain basin effectiveness. Overflow shall be controlled by paved weir or by vertical overflow pipe, draining from the surface. The collected topsoil sediment shall be reused for fill on the construction site, and/or conserved (stockpiled) for use at another site(s). The Contractor shall institute effluent quality monitoring programs as required by State and local environmental agencies.

#### 3.1.2.5 Contractor Facilities and Other 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 when approved by the Contracting Officer. Borrow areas shall be managed to minimize erosion and to prevent sediment from entering nearby watercourses, wetlands, or lakes. Spoil areas shall be managed and controlled to limit spoil intrusion into areas designated on the drawings and to prevent erosion of soil or sediment from entering nearby watercourses, wetlands, or lakes. Spoil areas shall be developed in accordance with the grading plan indicated on the drawings. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from despoilment. If there is suspicion that sediment may be unsuitable for disposal at a specified location, the Contractor shall immediately take measures to contain the suspect sediment and notify the Contracting Officer.

#### 3.1.2.6 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination. Solid waste materials shall be hauled to an approved solid waste disposal site ~~designated by the Contracting Officer~~. The Contractor shall comply with Federal, State, and local regulations pertaining to the use of the solid waste disposal site.

#### 3.1.2.7 Fuel, Oil, and Lubricants

Fuel, oil, and lubricants shall be managed so as to prevent spills and evaporation. To prevent spills, fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be 8-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the Contractor shall immediately recover the contaminated ground and dispose of it offsite in an approved area. Petroleum waste generated shall be stored in marked corrosion-resistant containers and recycled or disposed of in accordance with 40 CFR 279, State, and local regulations.

#### 3.1.2.8 Hazardous Waste

Hazardous wastes are defined in 40 CFR 261. The Contractor shall ensure that hazardous wastes are stored and disposed of in accordance with 40 CFR 261 and State and local regulations. The Contractor shall ensure that hazardous wastes are packed, labeled, and transported in accordance with 49 CFR 173 and State and local regulations.

#### 3.1.2.9 Hazardous Materials

The Contractor shall ensure that hazardous materials are labeled, stored, and transported in accordance with 49 CFR 173, State, and local regulations.

#### 3.1.2.10 Disposal of Other Materials

Other materials than previously discussed (Construction and Demolition, vegetative waste, etc.) shall be handled as directed.

### 3.1.3 Preservation and Recovery of Historic, Archeological, and Cultural Resources

#### 3.1.3.1 Applicable Law

A number of Federal laws require protection of cultural resources. Two laws, in particular, can be potentially involved with dredging activities: (1) the National Historic Preservation Act, as amended; and, (2) the Abandoned Shipwreck Act.

#### 3.1.3.2 Known Resources

Known historic, archeological and cultural resources within the Contractor's work area(s) are designated as a "sensitive environmental area" on the contract drawings or other documents. If so designated, the Contractor shall install protection for these resources and shall be responsible for their preservation during the contract's duration. The Contractor shall not distribute maps or other information on these resource

locations except for distribution among the Contractor's staff with a "need to know" technical responsibility for protecting the resources.

#### 3.1.3.3 Inadvertent Discoveries

If, during or other construction activities, the Contractor observes items that may have historic or archeological value, such observations shall be reported immediately to the Contracting Officer so that the appropriate Corps staff may be notified and a determination for what, if any, additional action is needed. Examples of historic, archeological and cultural resources are bones, remains, artifacts, shell, midden, charcoal or other deposits, rocks or coral, evidences of agricultural or other human activity, alignments, and constructed features. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from further removing, or otherwise damaging, such resources.

The possibility of encountering submerged cultural resources is inherent in dredging and snagging operations. Such findings could include shipwrecks, shipwreck debris fields (such as streamed engine parts), prehistoric watercraft (such as log "dugouts"), and other structural features intact or displaced. The materials may be deeply buried in sediment, resting in shallow sediments or above them, or protruding into water. Suspected cultural materials inadvertently gathered from a water-saturated context should be kept moist by re-immersion, spraying, or some other expedient means of wetting until the appropriate Corps staff provide further directives. No interviews or other contact with media shall occur without clear authorization from the Contracting Officer or the appropriate Corps representative.

#### 3.1.3.4 Claims for Downtime due to Inadvertent Discoveries

Upon discovery and subsequent reporting of a possible inadvertent discovery of cultural resources, the Contractor shall seek to continue work well away from, or otherwise protectively avoiding, the area of interest, or in some other manner that strives to continue productive activities in keeping with the contract. Should an inadvertent discovery be of the nature that substantial impact(s) to the work schedule are evident, such delays shall be coordinated with the Contracting Officer. Contract adjustments resulting from compliance with this paragraph shall be determined in accordance with Clause DIFFERING SITE CONDITIONS of Section 00700 CONTRACT CLAUSES.

#### 3.1.4 Protection of Water Resources

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface, ground waters, and wetlands. The Contractor shall plan his operation and perform all work necessary to minimize adverse impact or violation of the water quality standard. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities which are included in this contract. The Contractor's construction methods shall protect wetland and surface water areas from damage due to mechanical grading, erosion, sedimentation and turbid discharges. There shall be no storage or stockpiling of equipment, tools, or materials within wetlands or along the shoreline within the littoral zone unless specifically authorized.

##### 3.1.4.1 Washing and Curing Water

Waste waters directly derived from construction activities shall not be allowed to enter water areas. These waste waters shall be collected and placed in retention ponds where suspended materials can be settled out or the water evaporates so that pollutants are separated from the water. Analysis shall be performed and results reviewed and approved by Corps staff before water in retention ponds is discharged.

#### 3.1.4.2 Cofferdam and Diversion Operations

Construction for dewatering, removal of cofferdams, tailrace excavation, and tunnel closure shall be controlled at all times to limit the impact of water turbidity on the habitat for wildlife and impacts on water quality for downstream use.

#### 3.1.4.3 Monitoring of Water Areas

Monitoring of water areas affected by construction activities shall be the responsibility of the Contractor. All water areas affected by construction activities shall be monitored by the Contractor.

#### 3.1.4.4 Turbidity

The Contractor shall conduct his earthwork and disposal operations in a manner to minimize turbidity and shall conform to all water quality standards as prescribed by Chapter 62-302, FAC, Department of Environmental Protection (FDEP). Surface water quality standards can be obtained from the following web sites:

<http://www.dep.state.fl.us/ogc/documents/rules/shared/62-302.pdf> and  
<http://www.dep.state.fl.us/ogc/documents/rules/shared/62.302t.pdf>.

#### 3.1.4.5 Oil, Fuel, and Hazardous Substance Spill Prevention and Mitigation

The Contractor shall prevent oil, fuel, or other hazardous substances from entering the air, ground, drainage, local bodies of water, or wetlands. This shall be accomplished by design and procedural controls. In the event that a spill occurs despite the design and procedural controls, the following shall occur:

(1) Immediate action shall be taken to contain and cleanup any spill of oil, fuel or other hazardous substance.

(2) Spills shall be immediately reported to the Contracting Officer.

(3) Spill contingency planning shall be strictly in accordance with the criteria of 40 CFR, Part 109.

(4) To control the spread of any potential spill, absorbent materials shall be readily available and capable of absorbing the contents of the single largest tank.

(5) To control the spread of any potential spill, the Contractor shall provide a written certification of commitment of manpower, equipment, and materials required to expeditiously cleanup and dispose of spill materials.

a. Spill Preventive Systems: System design and installation requirements have been discussed at the beginning of this Section.

Temporary or portable tanks shall conform to applicable Federal, State, and local codes and requirements and shall not be placed where they may be affected by storm, flooding, or washout. Diversionary structures for spills shall be put in place in advance where practical. Both spill preventive systems and any deviations from associated requirements must be approved by the Contracting Officer prior to implementation.

b. Liabilities: The Contractor shall be liable in the amounts established in 40 CFR, Part 113 when it can be shown that oil was discharged as a result of willful negligence or willful misconduct. The penalty for failure to report the discharge of oil shall be in accordance with the provision of 33 CFR, Part 153.

### 3.1.5 Protection of Fish and Wildlife Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection shall be listed in the Contractor's Environmental Protection Plan prior to the beginning of construction operation.

#### 3.1.5.1 Endangered Species Protection

The Contractor shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees.

a. Civil and Criminal Penalties: All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act. The Contractor may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.

b. Siltation Barriers: If siltation barriers are used, they shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.

c. Vessel/Boat Operation: All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in the construction area and while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom, and vessels shall follow routes of deep water whenever possible. Boats used to transport personnel shall be shallow-draft vessels, preferably of the light-displacement category, where navigational safety permits. Mooring bumpers shall be placed on all barges, tugs, and similar large vessels wherever and whenever there is a potential for manatees to be crushed between two moored vessels. The bumpers shall provide a minimum stand-off distance of 4 feet.

d. Manatee Sighting: If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50

feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment shall be shut down and all construction activities shall cease within the waterway to ensure protection of the manatee. Construction activities shall not resume until the manatee has departed the project area. If construction activity shall cease, notify the Contracting Officer.

e. Manatee Signs: Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" will be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction. Sample Manatee Caution Signs are appended to the end of this Section.

f. Manatee Sighting Reports: Any collisions with a manatee or sighting of any injured or incapacitated manatee shall be reported immediately to the Corps of Engineers. The order of contact within the Corps of Engineers shall be as follows:

Order of Contact of Corps Personnel for Contractor  
to Report Manatee Death or Injury

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Corps, Inspector	On site	Lodging Location
Mr. John G. Cooper, Area Engineer, South Florida Area Office (CESAJ-CO-W) Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	561-626-5299	To be Provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO-C)	904-232-1010	To be Provided
Mr. Gordon M. Butler, Jr., Chief, Construction-Operations Division (CESAJ-CO)	904-232-1122	To be Provided
	904-232-3765	To be Provided

The Contractor shall also immediately report any collision with and/or injury to a manatee to the Florida Marine Patrol "Manatee Hotline" 1-800-342-5367 as well as the U.S. Fish and Wildlife Service, Vero Beach Field Office at 561-562-3909 for South Florida.

g. Manatee Monitoring (Clamshell Only): During clamshell dredging operations, a dedicated observer will monitor for the presence of manatees. If manatees are present, the observer shall document all activities with the use of a video camera with the capabilities of video taping at night. The video tape shall have date/time signature and record all manatee movements in the construction area and note any reactions to turbidity, sound, and light. The Contractor will forward 3 copies to Chief, Environmental Branch, P.O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of completion of the dredging.

h. Report Submission: The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. The data shall be recorded on forms provided by the Contracting Officer (sample Daily Manatee Reporting Log is appended to the end of this Section). All data in original form shall be forwarded directly to Chief Environmental Branch, P. O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of collection and copies of the data shall be supplied to the Contracting Officer. Following project completion, a report summarizing the above incidents and sightings shall be submitted to the following:

Florida Fish and Wildlife Conservation Commission  
Bureau of Protected Species Management  
620 South Meridian Street  
Tallahassee, Florida 32399-1600

Chief, Environmental Branch  
U.S. Army Corps of Engineers (CESAJ-PD-E)  
P.O. Box 4970  
Jacksonville, Florida 32232-0019

Area Engineer, South Florida Area Office  
U.S. Army Corps of Engineers (CESAJ-CO-W)  
4400 PGA Boulevard - Suite 203  
Palm Beach Gardens, FL 33410

Project Manager, Julie Bishop  
Palm Beach County  
Environmental Resources Management  
3323 Belvedere Road, Bldg. 502  
West Palm Beach, FL 33406

U.S. Fish and Wildlife Service  
1339 20th Street  
Vero Beach, Florida 32961-3559

### 3.1.6 Seagrass Protection Measures

a. The Contractor shall instruct all personnel associated with the project of the presence of seagrasses, especially the Federally-listed threatened Johnson's Seagrass (*Halophlia johnsonii*), and the need to avoid contact with seagrasses.

b. All construction personnel shall be advised that there are civil and criminal penalties for harming or destroying seagrasses, especially Johnson's Seagrass which is protected under the Endangered Species Act of 1973, as amended. The Contractor may be held responsible for any seagrasses harmed or destroyed due to construction activities.

c. The Contractor shall place turbidity curtains between construction activities taking place within 50 feet of known seagrasses or between resources outside 50 feet that may be impacted by siltation/turbidity resulting from construction activities. The turbidity curtains shall be effectively anchored to prevent movement and remain in place until construction activity is completed. The Contractor shall not anchor, stage or maneuver equipment in a manner that will cause any damage to seagrasses. Palm Beach County will mark existing seagrasses within the vicinity of the project. Anchoring or

staging equipment shall avoid these sensitive areas, as well as other seagrasses outside of the project areas. If such activities cannot be done without affecting these sensitive areas, the activities shall cease and the Contracting Officer and Chief, Environmental Branch (904-232-1010) shall be immediately notified (no later than the morning following the next working day if the incident occurs after normal working hours). Any actual or potential incident involving damage to, or disturbance of, seagrasses shall be reported.

### 3.1.7 Protection of Air Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable State air pollution standards in Florida Statute, Chapter 403, Chapters 200 series of the FAC), and all Federal emission and performance laws and standards, including the U.S. Environmental Protection Agency's Ambient Air Quality Standards. Information regarding Florida Statutes can be obtained from the following web sites: <http://www.dep.state.fl.us/ogc/documents/statutes/text/403.doc>; <http://www.dep.state.fl.us/ogc/documents/rules/aiur/62-213.doc>; and, <http://www.dep.state.fl.us/ogc/documents/rules/mainrule.htm>.

#### 3.1.7.1 Particulates

Particulates, such as dust, 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 work areas within or outside the project boundaries free from particulates that would cause air pollution standards to be exceeded or that would cause a hazard or nuisance. The Contractor shall have the necessary equipment and approved methods to control particulates as the work proceeds and before a problem develops.

#### 3.1.7.2 Burning

All burning shall be subject to State and local requirements, including requirements for burn permits and bans during certain conditions such as droughts. Burning on the Island may require an air-curtain incinerator. (Refer to subparagraph "Burning Exotic Vegetation" of Section 02230 CLEARING AND GRUBBING.)

#### 3.1.7.3 Odors

Odors shall be controlled at all times for all construction activities.

### 3.1.8 Protection of Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise.

## 3.2 POSTCONSTRUCTION CLEANUP

The Contractor shall clean up any area(s) used for construction.

## 3.3 PRESERVATION AND RESTORATION OF LANDSCAPE AND MARINE VEGETATION DAMAGES

The Contractor shall restore all landscape features and marine vegetation damaged or destroyed during construction operations outside the limits of the approved work areas. Such restoration shall be a part of the Environmental Protection Plan as defined in subparagraph "Environmental Protection Plan" of paragraph SUBMITTALS above. This work shall be accomplished at the Contractor's expense.

3.4 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed facilities and pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.5 SAMPLE - MANATEE CAUTION SIGNS

See APPENDIX A at the end of this Section (2 pages).

3.6 SAMPLE - DAILY MANATEE REPORTING LOG

See APPENDIX B at the end of this Section (1 page).

3.7 PROJECT ENVIRONMENTAL SUMMARY SHEET

See APPENDIX C at the end of this Section (2 pages).

3.8 CERTIFICATION LETTER ACKNOWLEDGING ALL PERMITS ARE ON FILE

See APPENDIX D at the end of this Section (1 page).

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## SECTION 01451

## CONTRACTOR QUALITY CONTROL

## PART 1 GENERAL

## 1.1 DEFINITIONS

Contractor's Representative (Site Superintendent or Project Manager) - highest level manager located onsite and responsible for site construction and related activities, including quality, safety, environmental protection and production.

Definable Features of Work - Construction task separate and distinct from other tasks and having separate control requirements. A definable feature of work may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. An example for Concrete would be: formwork, placement, finish, curing.

Quality Control System Manager - a person assigned duties to manage Contractor's Quality Control (CQC) system. CQC System Manager shall have written delegated authority sufficient to stop non-conforming work.

Quality Control Staff - persons assigned CQC functions and performing quality control activities. CQC Staff members may be employees of Contractor, subcontractors, testing laboratories, product representatives; however, CQC Staff are working under direction of CQC System Manger.

Safety Officer - employee or competent person trained or having required experience in safety, occupational health and who is assigned overall responsibility to oversee onsite safety.

Safety Specialist - person with specialized training or experience in safety and occupational health for specific items of work.

## 1.2 REFERENCES

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

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 1077	(2002) Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
ASTM D 3666	(2001) Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
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

ENGINEERING REGULATIONS (ER)

ER 1110-1-261 (1999) Quality Assurance of Laboratory Testing Procedures

ER 1180-1-6 (1995) Construction Quality Management

Corps of Engineers publications Internet location site is: <http://www.usace.army.mil/inet/usace-docs/>.

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. Submittals shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Laboratory Qualifications; G|COR

Submit laboratory qualifications as specified in subparagraph "Testing Laboratories" below.

Contractor Quality Control (CQC) Plan; G|COR

Contractor's plan describing proposed Quality Control System including organization and procedures to plan and execute quality control activities.

Letter of Authority

Letter to CQC System Manager signed by an authorized Contractor official which describes responsibilities and delegates sufficient authorities to perform functions of the CQC System Manager, including authority to stop work not in compliance with contract.

SD-07 Certificates

Qualifications; G|COR

Qualifications, and training certificates of safety personnel performing as safety specialists or assisting as Quality Control Staff. Includes first aid and CPR certifications. Refer to paragraph SAFETY OFFICER below.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 GENERAL

Contractor is responsible to plan and execute quality control in accordance with ER 1180-1-6. Establish and maintain an effective quality control system in compliance with the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES. Quality control system consists of plans, procedures, and organization necessary to produce a quality end product that complies with contract. Quality control system shall cover both onsite and offsite activities, and be keyed to definable features of work, construction sequence and schedule. Project Manager/Superintendent is responsible for quality of work and is subject to removal by Contracting Officer for non-compliance with contract quality requirements. Project Manager/Superintendent shall be on site at all times, except as otherwise approved by the Contracting Officer.

### 3.2 QUALITY CONTROL PLAN

Upon receiving Notice of Award, prepare a Quality Control Plan (CQC Plan) specific to project organization, site, and features of work. Describe proposed procedures to implement requirements of Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES. After a Preconstruction Conference, Contracting Officer will schedule a Coordination Meeting (see paragraph COORDINATION MEETING below). Contractor's CQC Plan will be discussed in detail by onsite personnel from Contractor and Contracting Officer. Contracting Officer may accept an "interim CQC Plan" under a "conditional acceptance" for first 30 days of operation when CQC Plan first applicable definable features of work are acceptable. Contractor shall furnish, not later than 30 calendar days after commencement of work, an acceptable overall CQC Plan.

#### 3.2.1 General

Within 20 calendar days after Notice of Award, submit a written CQC Plan for review and acceptance by Contracting Officer. CQC Plan submittal will be reviewed by Contracting Officer and discussed in detail at the Coordination Meeting. See paragraph COORDINATION MEETING below. Fully describe proposed procedures to implement requirements of Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES. CQC Plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. Contracting Officer may accept an "interim CQC Plan" under a "conditional acceptance" for first 30 calendar days of operation when quality control planning for first definable features of work are acceptable. Contractor shall furnish, not later than 30 calendar days after commencement of work, an acceptable overall CQC Plan.

##### 3.2.1.1 CQC Plan Resubmittal

No construction will be allowed to start until an "interim CQC Plan" is "conditionally accepted". When an "interim CQC Plan" is "conditionally accepted", revise and resubmit overall project CQC Plan for Contracting Officer's acceptance. When Contractor is working under an "interim CQC Plan", until Contractor submits an acceptable final CQC Plan, Contracting Officer will retain funds from progress payments in accordance with Clause PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES. When no acceptable CQC Plan is resubmitted within a reasonable time, as determined by Contracting Officer, Contracting Officer may order Contractor to stop work until such time as a CQC Plan is accepted. Such a directed stop work order shall not be considered a suspension of work under Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES. No pay or construction period adjustments will be allowed as a result of a directed stop work order based on Contractor inability to plan quality control in a

manner acceptable to Contracting Officer.

### 3.2.1.2 Failure

Failure to comply with above requirements within time prescribed will be considered a condition endangering contract performance and may be considered grounds for termination of contract in accordance with Clause DEFAULT (FIXED-PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES.

### 3.2.2 Content of CQC Plan

CQC Plan shall cover both onsite and offsite construction activities, including work by subcontractors, fabricators, suppliers, and purchasing agents:

a. Describe Quality Control Organization: Include an Organization Chart with lines of authority and reporting. CQC Staff shall include a CQC System Manager who shall perform his duties in tandem with those of Project Manager/Site Superintendent. For CQC matters, CQC System Manager shall directly report to Contractor other than Project Manager/Site Superintendent. ~~Project Manager/Site Superintendent may also be CQC System Manager.~~

b. Definable Features of Work: Although each section of specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. A definable feature of work list will be agreed upon during the Coordination Meeting.

c. CQC Staff Qualifications: Names, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function. If included, see paragraph LIMITATIONS ON SUBSTITUTIONS FOR CERTAIN POSITIONS AND/OR SUBCONTRACTORS of Section 00800 SPECIAL CONTRACT REQUIREMENTS.

d. Letter of Authority: Copy of Letter of Authority to CQC System Manager. CQC System Manager shall issue letters of direction to other quality control staff describing duties, authorities, and responsibilities.

e. Submittal Control: Procedures for scheduling, reviewing, certifying, and managing submittals, including submittal items from subcontractors, offsite fabricators, suppliers, and purchasing agents. Procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.

f. Testing: Control, verification, and acceptance testing procedures. Provide a list of specific tests. Provide information including test type or testing standard, specification paragraph requiring test, feature of work being tested, test frequency, and identify who (i.e., Contractor, subcontractor, Testing Laboratory) is responsible for each test.

g. Three-Phase Control: Procedures to implement three-phase quality control system. Procedures to plan and document preparatory, initial, and follow-up control phases.

h. Deficiency Tracking: Procedures for tracking construction deficiencies from identification through acceptable corrective action.

Establish procedures that verify deficiencies have been corrected and document correction.

i. Reports and Forms: Reporting procedures, including proposed reporting formats and sample forms.

### 3.2.3 Acceptance of Plan

"Conditional acceptance" of a Contractor's "interim CQC Plan" is required prior to starting construction. Within a specified period after commencement of work, Contractor's overall CQC Plan requires Contracting Officer's acceptance or work is subject to a stop work directive. Contracting Officer's acceptance is conditional and is contingent on satisfactory performance during the construction. Contracting Officer reserves the right to require Contractor to make changes in his CQC Plan and construction operations, including removal of personnel, in order to obtain required contract quality.

### 3.2.4 Notification of Changes

Notify Contracting Officer in writing a minimum of 7 calendar days prior to new proposed personnel or CQC Plan procedure changes. Proposed changes are subject to Contracting Officer acceptance.

## 3.3 COORDINATION MEETING

Refer to Section 01310 ADMINISTRATIVE PROCEDURES. Contracting Officer will schedule a Coordination Meeting where Contractor, CQC Staff, and Contracting Officer will develop a mutual understanding of Contractor's CQC Plan with Contracting Officer's Quality Assurance. CQC Plan will be discussed in detail, including forms for recording CQC operations, control activities, testing, administration of the system for both onsite and offsite work. Contractor's quality control both onsite and offsite, safety and environmental protection and supervision by Quality Control personnel will be discussed. Meeting minutes will be prepared by Contracting Officer and signed by both parties. Minutes will become part of contract files. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings or address deficiencies in CQC system or procedures requiring corrective action.

## 3.4 QUALITY CONTROL ORGANIZATION

### 3.4.1 General

CQC Organization shall have a CQC System Manager and sufficient number of additional qualified personnel to ensure contract quality control for workmanship and materials, including safety and environmental protection compliance. Designate a Safety Officer who shall serve as a member of CQC Staff. Personnel identified in other contract sections as requiring specialized skills to assure work is performed properly shall also be included as part of CQC Organization. Contractor's CQC Staff shall be present onsite during work and shall have authority and responsibility to ensure contract compliance. CQC Staff shall be subject to acceptance by Contracting Officer. Provide office space, filing systems and other resources as necessary to maintain an effective and functional CQC Organization. Complete records of letters, transmitted submittal items, shop drawings, progress schedules, changes to contract drawings, test results, and other project documentation shall be given promptly furnished to CQC Organization by Contractor. CQC Organization shall be responsible

to maintain these documents and records onsite, unless otherwise approved by Contracting Officer.

#### 3.4.2 CQC System Manager

Appoint a CQC System Manager, an individual employed by Contractor, within onsite organization who shall be responsible for CQC management. CQC System Manager shall have authority to act in all CQC matters for Contractor. CQC System Manager shall be an experienced construction person with a minimum of 5 years in related work. In the CQC Plan identify an alternate for CQC System Manager to manage CQC during CQC System Manager's absences. Designated alternate shall be a construction person with a minimum 3 years experience on similar projects and shall meet CQM-C Training requirement below. CQC System Manager or designated alternate shall be onsite during construction. CQC System Manager shall be assigned no other duties.

#### 3.4.3 Safety Officer

Designate an on-site Safety Officer to manage accident prevention program. Safety Officer or assistant shall be on site during all work. The position of Safety Officer shall be a dedicated, full-time position, and the incumbent shall have no other duties. Safety Officer shall report to and work directly for Contractor's on-site top manager (or higher level official) or corporate safety officer. Safety Officer shall be authorized to take immediate steps to correct unsafe and unhealthful conditions. Submit Safety Officer's resume of qualifications and job description with within 20 days after Notice of Award.

##### 3.4.3.1 Safety Officer Qualifications

Safety Officer shall have five years construction site experience on similar projects with experience as site safety specialist or Safety Officer. Safety Officer shall be qualified and have ability to manage on-site Contractor safety program, identify hazards and identify resources necessary to reduce hazards. Must have worked on similar types of projects and completed an OSHA training qualification class of at least 10 hours of classroom instruction. To be credited for satisfying experience requirements, a minimum 50 percent of the time shall have been devoted to safety and occupational health work. First aid work is not creditable.

#### 3.4.4 CQC Personnel

In addition to CQC personnel specified elsewhere in contract, Contractor shall provide as part of CQC Organization specialized personnel to assist CQC System Manager. CQC Staff shall be under direction of CQC System Manager to perform CQC activities. Individuals may be employees of Contractor, Supplier Product Representative or subcontractor employee as needed; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have necessary education and experience in accordance with experience matrix listed herein. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the CQC Plan.

#### Experience Matrix

Area

Qualifications

- |    |                               |  |
|----|-------------------------------|--|
| a. | Surveyor                      | Persons with 3 yrs survey experience currently working under direct supervision of Professional Surveyor and Mapper (PSM). |
| b. | Civil                         | Graduate Civil Engineer with 2 yrs related experience or person with 5 yrs related experience.                             |
| c. | Electrical                    | Graduate Electrical Engineer with 2 yrs related experience or person with 5 yrs related experience.                        |
| d. | Structural                    | Graduate Structural Engineer with 2 yrs experience or person with 5 yrs related experience.                                |
| e. | Environmental/Safety          | Graduate Biologist with 3 yrs related experience.  |
| f. | Submittals                    | Submittal Clerk with 1 yr experience.  |
| g. | Concrete, Pavements and Soils | Materials Technician with 2 yrs experience for the appropriate area.   |

#### 3.4.5 CQM-C Training Requirement

CQC System Manager and alternate shall have completed U.S. Army Corps of Engineers (COE) course "Construction Quality Management For Contractors" within the previous 5 years. A completion certificate from any Corps District or Naval Facilities Command is acceptable. In event proposed CQC System Manager has not completed CQM-C training, Contractor shall take this course within 60 days after Notice of Award. CQM-C is periodically offered by Jacksonville District. Information regarding course can be obtained from the following web site:

<http://www.saj.usace.army.mil/conops/construction> or by contacting Chief, Quality Assurance Section at 904-232-1128.

#### 3.4.6 Professional Surveyor and Mapper (PSM)

Contract requires survey quality control performed by PSM registered in State of Florida. This person shall directly supervise layout and post-construction survey. PMS shall stamp field notes, computations, and other records relating to surveys and layout of work.

#### 3.4.7 Organizational Changes

When CQC Staff changes are needed, revise CQC Organization Chart in CQC Plan to reflect changes and submit changes to Contracting Officer for acceptance.

### 3.5 SUBMITTALS AND DELIVERABLES

Submittals shall be prepared and transmitted as specified in Section 01330 SUBMITTAL PROCEDURES. CQC Organization shall certify submittals comply with contract requirements. Items delivered to Contracting Officer shall be controlled, packaged, transported and stored in a manner to prevent damage or loss. Deliverables including quality control documentation, invoices, correspondence shall be controlled to prevent loss or delays.

### 3.6 CONTROL

Contractor Quality Control is the means by which Contractor ensures construction, including that of subcontractors and suppliers, complies with contract. Conduct Preparatory Phase and Initial Phase meetings for each definable feature of work. (Refer to Section 01310 ADMINISTRATIVE PROCEDURES.) Perform three phases of control for each definable feature of work as follows:

#### 3.6.1 Preparatory Phase

Preparatory Phase shall be performed prior to beginning work on each definable feature of work. Notify Contracting Officer at least 24 hours in advance of beginning preparatory control phase. Ensure proposed plans, activity hazard analyses, permits and submittals, are approved and copies are onsite. Conduct a Preparatory Phase meeting headed by CQC System Manager and attended by Superintendent, other CQC personnel, and foremen responsible for supervising workmanship for definable feature of work. Document Preparatory Phase actions using "Preparatory Phase Checklist" and meeting minutes prepared by CQC System Manager. Sample Preparatory Phase Checklist is appended to the end of this Section. Attach checklist and minutes to Contractor's Quality Control (CQC) Report (sample CQC form appended to the end of this Section). Preparatory Phase actions include:

- a. Review each paragraph of specifications, reference codes, and standards. Review copies of referenced codes and standards applicable to work to be accomplished. Make copies available for use by Contracting Officer personnel and Contractor CQC Staff at Preparatory Phase meeting. Maintain copies available until final acceptance of work.
- b. Review of contract drawings.
- c. Check to assure that all materials and equipment have been tested, submitted, and approved.
- d. Review provisions that have been made to provide required control inspection and testing.
- e. Examine work area to assure required preliminary work is complete and in compliance with contract.
- f. Inspect materials, equipment, and sample work to assure that they are on hand, conform to approved or information only submittal items, and are properly stored.
- g. Review of activity hazard analysis to assure safety requirements are met.
- h. Discuss procedures for controlling quality of the work including preventing repetitive deficiencies. Document construction tolerances

and workmanship standards for that feature of work.

i. Check to ensure that portion of plan for work to be performed has been accepted by Contracting Officer.

j. Discuss initial control phase.

### 3.6.2 Initial Phase

Notify Contracting Officer at least 24 hours in advance of beginning the Initial Phase. Initial Phase is workmanship oriented and shall be accomplished at the beginning of physical work on a definable feature of work. CQC Staff, testing personnel, foremen, workers shall attend an "Initial Phase Meeting" conducted by CQC System Manager. Exact location of Initial Phase actions shall be indicated for future reference and comparison with follow-up phases. Document "Initial Phase Meeting" using an Initial Phase Checklist and minutes prepared by CQC System Manager. Sample Initial Phase Checklist is appended to the end of this Section. Attach checklist and minutes to Contractor's Quality Control (CQC) Report (sample CQC form appended to the end of this Section). Initial Phase actions include:

a. Check preliminary work to ensure that it complies with contract. Review minutes of 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 contract 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 activity analysis with each worker.

f. Initial Phase shall be repeated for new crews working onsite, and when contract workmanship quality standards are not being met.

### 3.6.3 Follow-up Phase

Follow-up Phase consists of daily checks performed to assure quality control activities, including testing, to provide continued compliance with contract requirements, until feature of work is complete. Record inspection and check results in CQC documentation. Complete follow-up checks and inspections and correct deficiencies prior to starting features of work which may be affected by deficient work. No non-conforming work shall be concealed to build upon.

### 3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on same definable features of work when: quality of on-going work is unacceptable; there are changes in applicable CQC Staff, production supervision or work crews; work on a definable feature is resumed after a period of inactivity; or, when other problems develop.

### 3.7 TESTS

#### 3.7.1 Testing Procedure

Perform specified or required tests to verify that control measures are adequate and provide an end product conforming to contract. When requested, Contractor shall furnish Contracting Officer duplicate samples of test specimens for possible testing by Contracting Officer. Testing includes operation and acceptance tests when specified. 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

Contractor may establish an onsite testing lab at project site or subcontract testing to commercial labs. Contracting Officer reserves right to inspect and validate Contractor's labs and testing equipment. Contractor's proposed material testing labs, water testing chemistry labs, environmental testing labs require Contracting Officer approval. Submit lab qualifications including:

- a. Laboratory name, address, point of contact and phone number.
- b. Experience and background of technical personnel in resume format.
- c. Provide most recent external inspection report.

##### 3.7.2.1 Material Testing Laboratory

Contract requires Contractor material testing lab to be validated by Corps of Engineers in accordance with ER 1110-1-261. A list of currently Corps validated material laboratories is available at: <http://www.wes.army.mil/SL/MTC/ValStatesTbl.htm>. If proposed labs are not currently Corps of Engineers validated, submit name, address and phone number to Contracting Officer at Preconstruction Conference to arrange Corps of Engineers validation. Contracting Officer may approve a material testing lab by audit of inspection reports by Concrete and Cement Reference

Laboratory (CCRL), AASHTO Materials Reference Laboratory (ARML).

### 3.7.2.2 Water and Wastewater Chemistry Laboratories

Contract requires Contractor lab performing water, sediment, and other samples for chemical analysis to be validated by Corps of Engineers in accordance with ER 1110-1-261. If proposed lab is not currently Corps of Engineers validated, submit name, address and phone number to Contracting Officer at Preconstruction Conference to arrange Corps of Engineers validation. Contracting Officer may approve water testing laboratory by audit of submitted lab qualifications describing capabilities and chemical quality control program or by inspection and validation by Corps of Engineers Waterways Experimental Station, Chemical Quality Assurance Branch.

### 3.7.2.3 Laboratory Inspections for Validation or Certification

Contracting Officer reserves right to inspect lab equipment and personnel qualifications in proposed labs for compliance with standards specified in contract specifications. Inspection will include checking lab technician's testing procedures and techniques. Labs used for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM C 1077, ASTM D 3666, ASTM D 3740, and ASTM E 329. Labs for water testing will be inspected to assure capability to perform contract tests in accordance with testing standards listed in Appendix A of ER 1110-1-261. Validation process requires lab response to deficiency correction within 30 days after receiving inspection report.

### 3.7.2.4 Reinspection Cost

If Contractor's selected lab fails Contracting Officer inspection, Contractor will be charged \$3,000.00 to reimburse Contracting Officer for costs to reinspect or inspect a different lab. Charge will be deducted from contract amount due Contractor.

### 3.7.3 Onsite Laboratory

Contracting Officer reserves the right to use Contractor's onsite testing lab and equipment to make quality assurance tests, check Contractor's testing procedures, techniques, and test results at no additional cost to the Contracting Officer.

### 3.7.4 Samples for Contracting Officer Testing

Costs incidental to obtaining and transporting samples and materials for Contracting Officer testing are Contractor's responsibility. Samples of materials for test verification and acceptance testing by Contracting Officer shall be delivered to lab designated by Contracting Officer. Contractor shall coordinate obtaining specific samples and delivery location with Contracting Officer. Routine soil, concrete, asphalt testing is usually done within Florida. Special construction products or components are usually sent to a Corps of Engineers lab located in Vicksburg, Mississippi or Champaign, Illinois. Jacksonville District chemical analysis, rock petrographic, metallurgy samples are usually sent to Atlanta, Georgia or Jacksonville, Florida for testing.

## 3.8 COMPLETION INSPECTIONS

### 3.8.1 Punch-Out Inspection

Near end of project, or phase of work established for beneficial occupancy, Contractor shall conduct a "Punch-Out Inspection" jointly inspecting completed work with subcontractors. Contractors shall develop a "punch list" of work which does not conform to contract. Provide punch list to Contracting Officer. Punch list shall include estimated date by which deficiencies will be corrected. Contractor shall make a second inspection to ensure deficiencies have been corrected. Once this is accomplished, notify Contracting Officer that work is ready for Contracting Officer Pre-Final Inspection.

### 3.8.2 Pre-Final Inspection

Contracting Officer will jointly perform a "Pre-Final Inspection" with Contractor to verify work is complete and ready for acceptance or occupancy. New punch list items may be developed as a result of Pre-Final Inspection. Contractor shall ensure items on this punch list have been corrected before notifying Contracting Officer to schedule a Final Inspection with Owner. Items on a Pre-Final punch list shall be corrected in a timely manner. Complete inspections and correct any deficiencies within construction period for completion of work or for a particular phase of work when contract has separate completion dates.

### 3.8.3 Final Acceptance Inspection

Contractor, Project Manager/Superintendent, CQC System Manager shall attend Final Inspection. Contracting Officer, and additional persons including, but not limited to, those from Sponsor, User, Customer, or Owner, and other agencies may also attend. Final Inspection will be scheduled by Contracting Officer based upon results of the Pre-Final Inspection and Contractor's notification. Notify Contracting Officer at least 14 days prior to Final Inspection. Include a statement assuring deficiencies will be corrected and work will be acceptable by date proposed for Final Inspection. Contractor's failure to correct deficiencies and have work complete for Final Inspection will be cause for Contracting Officer to deduct from Contractor for Contracting Officer's additional reinspection cost from contract payment in accordance with Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES.

## 3.9 DOCUMENTATION

Contractor shall maintain records for each construction day documenting quality control activities that have been performed. Records shall include testing record, work of subcontractors and suppliers. A CQC report with supporting attachments shall be prepared daily on an acceptable form that includes the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. 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. (Refer to Section 01320 PROJECT SCHEDULE.)
- d. Testing and control activities performed with results and references to specifications or drawings requirements. Identify control phase (Preparatory, Initial, Follow-up). List deficiencies noted, along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications or 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 or received and conflicts in plans or specifications.

j. Contractor's verification statement.

Describe trades working on the project; number of personnel working; weather conditions encountered; and delays encountered. Records shall cover both conforming and deficient work and shall include a statement that equipment and materials incorporated into work and workmanship comply with contract. Original and one copy of these records shall be furnished to Contracting Officer daily within 24 hours after the date covered by report.

No CQC daily report is required for days on which no work is performed; however, next report shall document weather during those days and note possible effects on restarting work. Submit a report for a minimum every 7 days of no work and on the last day of a no work period. All contract calendar days shall be accounted for. CQC System Manager or Alternate shall sign and date reports. CQC System Manager's reports shall include copies of test reports, phase checklists, meeting minutes, inspector notes, and copies of reports prepared by other quality control personnel.

### 3.10 NOTIFICATION OF NONCOMPLIANCE

Contracting Officer will notify Contractor of noncompliance with contract requirements. Take corrective action immediately after receipt of noncompliance notification. Contractor personnel notified at work site is sufficient for the purpose of Contractor notification. If Contractor fails to comply promptly, Contracting Officer may issue an order stopping all or part of work until satisfactory corrective action has been taken. Such stop orders shall not be made a basis of a Contractor's claim for time extension or other damages.

### 3.11 SAMPLE FORMS

Sample forms are appended at the end of this Section. Forms are available for Contractor use at the following web sites:  
<http://www.saj.usace.army.mil/conops/construction> and  
<http://www.usace.army.mil/inet/usace-docs/>.

### 3.12 SAMPLE - PREPARATORY AND INITIAL PHASE CHECKLISTS

See APPENDIX A at the end of this Section (5 pages).

### 3.13 SAMPLE - CONTRACTOR'S QUALITY CONTROL (CQC) REPORT

See APPENDIX B at the end of this Section (4 pages).

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## SECTION 02220

## DEMOLITION

## PART 1 GENERAL

## 1.1 REFERENCES

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

## ENGINEERING MANUALS (EM)

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

## 1.2 GENERAL REQUIREMENTS

The work includes demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. Rubbish and debris shall be removed from Government property daily, unless otherwise directed, to avoid accumulation at the demolition site. Materials that cannot be removed daily shall be stored in areas specified by the Contracting Officer. In the interest of occupational safety and health, the work shall be performed in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections. In the interest of conservation, salvage shall be pursued to the maximum extent possible; salvaged items and materials shall be disposed of as specified.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "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

## Work Plan; G|COR

The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, including procedures and methods to provide necessary supports, lateral bracing and shoring when required, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations in accordance with EM 385-1-1.

## Notice of Barge Mobilization; G|COR

Prior to commencement of work, the Contractor shall be responsible for submitting a schematic illustrating the methodology, access points, placement and stabilization of barges within each project area. Placement of an earthen berm between the shoreline and barge, below MHW is prohibited. The drawings and methodology is subject to approval by the Contracting Officer prior to barge mobilization.

#### 1.4 AVAILABILITY OF WORK AREAS

Areas in which the work is to be accomplished will be available in accordance with schedules provided by the Contracting Officer.

#### PART 2 PRODUCTS (NOT APPLICABLE)

#### PART 3 EXECUTION

##### 3.1 EXISTING STRUCTURES

Existing structures indicated shall be removed to grade. Sidewalks, curbs, gutters and street light bases shall be removed as indicated.

##### 3.2 UTILITIES

Disconnection of utility services, with related meters and equipment, are specified in Sections 02510 WATER DISTRIBUTION SYSTEM and 16524 EXTERIOR LIGHTING. Existing utilities shall be removed as indicated. When utility lines are encountered that are not indicated on the drawings, the Contracting Officer shall be notified prior to further work in that area.

##### 3.3 FILLING

Holes and other hazardous openings shall be filled in accordance with Section 02300 EARTHWORK.

##### 3.4 DISPOSITION OF MATERIAL

Title to material and equipment to be demolished, except Government salvage and historical items, is vested in the Contractor upon receipt of Notice to Proceed. The Government will not be responsible for the condition, loss or damage to such property after Notice to Proceed.

###### 3.4.1 Salvageable Items and Material

Contractor shall salvage items and material to the maximum extent possible.

###### 3.4.1.1 Material Salvaged for the Contractor

Material salvaged for the Contractor shall be stored as approved by the Contracting Officer and shall be removed from Government property before completion of the contract. Material salvaged for the Contractor shall not be sold on the site.

###### 3.4.1.2 Items Salvaged for the Government

Salvaged items to remain the property of the Government shall be removed in a manner to prevent damage, and packed or crated to protect the items from damage while in storage or during shipment. Items damaged during removal or storage shall be repaired or replaced to match existing items.

Containers shall be properly identified as to contents. The following items reserved as property of the Government shall be delivered to the areas designated:

a. Granite armor rock from existing breakwater and concrete pavers on existing pathway within the limits of Reef and Lagoon Site shall be relocated and used in new breakwater structures and paver pathway, respectively, on southeast Peanut Island.

b. Concrete pavers within the limits of the Tidal Pond area (W Peanut) shall be relocated and used in new paver pathway on West Peanut Island.

#### 3.4.2 Unsalvageable Material

Concrete and masonry, except concrete permitted to remain in place, may be disposed of offsite or in the Fill area.

a. The shoreline of the Lake Worth Wetland Restoration (Fill) Site has existing concrete, seawall and rock materials, which shall be removed down to Elevation 0 foot, NGVD, and may be placed within the Fill area, and covered with a minimum of 4 feet of fill material to the specified lines and grades in the Fill area. Appended to the end of this Section are photographs which illustrate typical shoreline materials. Rock and concrete abutting existing mangroves, which cannot be removed without damage to the mangroves, may remain in place, upon approval of the Contracting Officer. Shoreline materials may be removed only from within acceptance sections that the Contractor is currently filling and/or surveying for acceptance (3 sections maximum at any one time).

b. Rock and concrete materials encountered during construction on Peanut Island shall be removed from the island, and ~~may be transported~~ and placed within the Lake Worth Wetland Restoration Fill area in a manner that does not prohibit achievement of specified lines and grades in the Fill area.

#### 3.5 CLEAN UP

Debris and rubbish shall be removed from basement and similar excavations. Debris shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

#### 3.6 PAVEMENTS

Existing pavements designated for removal shall be saw cut and removed in accordance with the details shown on the drawings and to the limits and depths indicated on the drawings.

#### 3.7 TYPICAL SHORELINE MATERIALS

See APPENDIX A at the end of this Section (3 pages).

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## SECTION 02230

## CLEARING AND GRUBBING

## PART 1 GENERAL

## 1.1 REFERENCES

The publication listed below forms a part of this specification to the extent referenced. The publication is referred to in the text by basic designation only.

## ENGINEERING MANUALS (EM)

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

## 1.2 DEFINITIONS

## 1.2.1 Selective Clearing

Selective Clearing shall consist of the trimming, and cutting of non-native trees and other vegetation into sections for chipping or disposal, including down timber, snags, brush, and rubbish occurring in the areas to be selectively cleared; while protecting native vegetation. Includes down timber along the shoreline above and below mean water level. Trees to be removed shall be grubbed, unless extraction of root system will cause harm to native trees to remain. If non-native tree cannot be grubbed without harming native trees, the non-native tree shall be cut level with the ground with the roots left in place (may include hand clearing). All cut stumps shall be treated with herbicide by others.

## 1.2.2 Clearing and Grubbing

Clearing and Grubbing shall consist of the felling, trimming, and cutting of trees and other vegetation into sections for chipping or disposal, including down timber, snags, brush, and rubbish, obstructions interfering with excavation and installation of new construction, occurring in the areas to be cleared and grubbed. Includes the removal and disposal of grass, weeds, stumps, roots larger than 3 inches in diameter, and matted roots from the designated clearing and grubbing areas. Includes down timber along the shoreline above and below mean water level.

## 1.2.3 Chipping

Chipping shall consist of cutting and chipping cleared vegetation into landscape mulch to be used within the Maritime Hammock area on Peanut Island only.

## 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

## Site Clearing Work Plans; G|COR

A Site Clearing Work Plan is required for the Peanut Island and Lake Worth Wetland Restoration (Fill) Sites. The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, including procedures for protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection of utility services. The work plan shall indicate methodology for disposal of cleared vegetation by chipping, burning, or offsite disposal. The work plan shall indicate methodology for preventing runoff, erosion or airborne distribution of unprotected soils. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations in accordance with EM 385-1-1.

## SD-07 Certificates

## Notice of Intent to Clear and Burn Vegetation; G|COR

Prior to commencement of burning vegetation on the Island, the Contractor shall be responsible for securing and abiding by all conditions of a Palm Beach County Burn Permit, which shall be secured by arranging a site survey inspection with Florida Health and Rehabilitative Services (HRS) at 561-355-3070 with results submitted to Palm Beach County Fire and Rescue for permit issuance. Verification of the receipt of required burn permits shall be provided to the Contracting Officer within 5 days of the commencement of burning operations. A copy of the permit shall be provided to the Contracting Officer. Permission to burn may require the Contractor to use an air curtain incinerator.

## PART 2 PRODUCTS

## 2.1 CHARACTERISTICS OF MATERIALS

## 2.1.1 Chipped Material (Mulch)

The vegetation to be cleared on Peanut Island and Lake Worth Wetland Restoration (Fill) Sites consists primarily of Australian pine (*Casurina spp*) as well as other exotic plant species. Tree/plant material on Peanut Island shall be chipped into landscape mulch and temporarily stockpiled for distribution within designated upland areas (Maritime Hammock) of the Island. Ninety percent of the resulting chips shall be equally distributed in size ranges from 1 inch by 1 inch by 1 inch (1"x1"x1") up to 4 inches by 1 inch by 1 inch (4"x1"x1").

## 2.2 HERBICIDE

Herbicide treatment of cut stumps shall be conducted by others.

## PART 3 EXECUTION

## 3.1 SELECTIVE CLEARING

All non-native trees, stumps, roots, brush, and other non-native vegetation in areas to be cleared shall be grubbed unless grubbing will cause damage

to surrounding native vegetation or facilities. If a non-native tree cannot be grubbed, the non-native tree shall be cut off flush with or below the original ground surface. Cut surfaces of non-native trees shall be treated with herbicide, by others, as discussed in subparagraph "Chemical Treatment of Cut Stumps" below.

Native trees within the clearing 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 as necessary to remove non-native vegetation.

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 on native vegetation shall be painted with an approved tree-wound paint. 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. All cut stumps of non-native vegetation shall be treated with herbicide by others.

### 3.1.1 Hand Clearing

Clearing non-native vegetation and/or debris near or amongst existing native vegetation, facilities, or utilities shall be completed by hand methods, if necessary, to prevent damage to native vegetation, facilities, or utilities. If the removal of non-native tree roots might damage or uproot existing native vegetation, facilities, or utilities, the Contractor shall cut the non-native tree into manageable sections, starting from the top, until reaching the stump, which shall be cut flush level with the ground, rather than pulling out the root system.

### 3.1.2 Chemical Treatment of Cut Stumps

All non-native cut stumps shall be treated with an approved herbicide, by others.

## 3.2 CLEARING AND GRUBBING

Material to be cleared and grubbed, together with logs and other organic or metallic debris not suitable for foundation purposes, 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 grubbed and in areas indicated as construction areas under this contract, such as areas for buildings, and areas to be paved. Depressions made by grubbing shall be filled with suitable material and compacted to make the surface conform to the original adjacent surface of the ground.

## 3.3 UTILITIES

Locations of existing utilities shown in the plans are approximate. The Contractor shall verify location, size, type, etc., of each utility to assure compliance with the improvements shown in the contract plans. The Contractor shall be responsible to determine the exact location of all utilities prior to construction. Utilities shall be located and marked in the field. The Contractor shall protect the utilities from damage. The Contractor shall notify the Contracting Officer immediately of damage to or an encounter with an unknown existing utility. The Contractor shall be responsible for the repairs of damage to any existing utility that is indicated or made known to the Contractor prior to start of clearing and grubbing operations. When utilities, which are to be removed are encountered within the area of operations, the Contractor shall notify the Contracting Officer in ample time to minimize interruption of the service.

### 3.4 DISPOSAL OF CLEARED MATERIALS

#### 3.4.1 Chipping Vegetation-Peanut Island

A suitable quantity of vegetation cleared from Peanut Island shall be chipped and left on site for distribution as mulch, to a depth of 6 inches within the 6.1 acre Maritime Hammock project area. Chipped vegetation quantities, beyond what is necessary to mulch the Maritime Hammock, may be stockpiled on the Island, for use by Palm Beach County Parks.

#### 3.4.2 Cleared Vegetation Removal

##### 3.4.2.1 Peanut Island

All cleared (includes selective clearing and clearing and grubbing) vegetation that is unsuitable for chipping or in excess of material necessary to chip and mulch the Maritime Hammock must be removed from the Island and disposed of at an appropriate upland site. The material may be burned upon acquisition of proper burn permits. Excess satisfactory material, over what is necessary for mulching the maritime hammock, may be chipped and stockpiled (to a maximum of 2,500 cubic yards) in the maritime hammock on the north end of the Island for use by Palm Beach County Parks.

##### 3.4.2.2 Lake Worth Wetland Restoration (Fill) Site

~~All cleared vegetation must be removed offsite and disposed of at an appropriate upland site. Material may not be chipped or burned on the Lake Worth Wetland Restoration site. Material may be taken and disposed of on Peanut Island as directed in the subparagraph "Peanut Island" above or another approved upland site at the Contractor's expense.~~

#### 3.4.3 Burning Exotic Vegetation

Tree stump and plant material that is too large to chip, or in excess of what is needed to chip and mulch the Maritime Hammock, may be incinerated on Peanut Island with the acquisition of proper burn permits, which may require the Contractor to use an air curtain incinerator. The Contractor shall be responsible for securing and abiding by all conditions of a Palm Beach County Burn Permit. Verification of the receipt of required burn permits shall be provided to the Contracting Officer within 5 days of the commencement of burning operations.

### 3.5 EQUIPMENT, MATERIAL STORAGE, AND MAINTENANCE

The Contractor shall store all construction equipment and materials well landward of the high tide area and within the designated project area. The Contractor shall not adversely impact existing native vegetation. All maintenance of equipment, including but not limited to refueling, filter changes, replacement of hydraulic lines, etc., will be performed in a manner so as not to contaminate soils, water quality, or natural resources.

The Contractor shall install a containment pan under each fuel tank that is temporarily stored at the project site (refer to subparagraph "Fuel, Oil, and Lubricants" of subparagraph "Protection of Land Resources" of paragraph PROTECTION OF ENVIRONMENTAL RESOURCES of Section 01355 ENVIRONMENTAL PROTECTION).

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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 ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS  
(AASHTO)

- AASHTO T 99 (1994) Moisture-Density Relations of Soils Using a 2.5 kg (5.5 lb) Rammer and a 305 mm (12 in.) Drop
- AASHTO T 180 (1997) Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and an 457 mm (18-in) Drop
- AASHTO T 224 (1996) Correction for Coarse Particles in the Soil Compaction Test

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM C 136 (2001) Sieve Analysis of Fine and Coarse Aggregates
- ASTM D 422 (1963; R 1998) Particle-Size Analysis of Soils
- ASTM D 1140 (1997) Amount of Material in Soils Finer than the No. 200 (75-micrometer) Sieve
- ASTM D 1556 (2000) Density and Unit Weight of Soil in Place by the Sand-Cone Method
- ASTM D 1557 (2000) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>))
- ASTM D 2167 (1994) Density and Unit Weight of Soil in Place by the Rubber Balloon Method
- ASTM D 2487 (2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- ASTM D 2922 (2001) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)

ASTM D 2937	(1994) Density of Soil in Place by the Drive-Cylinder Method
ASTM D 3017	(2001) Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 4318	(2000) Liquid Limit, Plastic Limit, and Plasticity Index of Soils

## 1.2 DEFINITIONS

### 1.2.1 Satisfactory Materials

Satisfactory materials shall comprise any materials classified by ASTM D 2487 as GW, GP, GM, GP-GM, GW-GM, GC, GP-GC, GM-GC, SW, SP, SM, and SP-SM. Satisfactory materials for grading shall be comprised of stones less than 1 inch, except for fill material for pavements which shall be comprised of stones less than 3 inches in any dimension and, except for fill material taken to the dredged hole fill site (Lake Worth Wetland Restoration), which may be comprised of stones of any size, any dimension.

### 1.2.2 Unsatisfactory Materials

Materials which do not comply with the requirements for satisfactory materials are unsatisfactory. Unsatisfactory materials also include man-made fills; trash; refuse; backfills from previous construction; and material classified as satisfactory which contains root and other organic matter or frozen material. The Contracting Officer shall be notified of any contaminated materials.

### 1.2.3 Cohesionless and Cohesive Materials

Cohesionless materials include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic. Testing required for classifying materials shall be in accordance with ASTM D 4318, ASTM C 136, ASTM D 422, and ASTM D 1140.

### 1.2.4 Degree of Compaction

Degree of compaction required, except as noted in the second sentence, is expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557 abbreviated as a percent of laboratory maximum density. Since ASTM D 1557 applies only to soils that have 30 percent or less by weight of their particles retained on the 3/4 inch sieve, the degree of compaction for material having more than 30 percent by weight of their particles retained on the 3/4 inch sieve shall be expressed as a percentage of the maximum density in accordance with AASHTO T 180 Method D and corrected with AASHTO T 224. To maintain the same percentage of coarse material, the "remove and replace" procedure as described in the NOTE 8 in Paragraph 7.2 of AASHTO T 180 shall be used.

## 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

Site Excavation Plan; G|COR

The Site Excavation Plan shall include the methods and equipment which the Contractor will use to excavate and designate the Island access sites to be used. The Contractor shall not begin transport of the material from Peanut Island until the Contracting Officer has approved the Site Excavation Plan, which shall include the following:

- a. Earthwork
- b. Procedure and location for disposal of unused satisfactory material.
- c. Advance notice on the opening of excavation. Advance notice on shoulder construction for rigid pavements. Any rock encountered shall be taken to the dredged hole fill site.

SD-06 Test Reports

Testing; G|COR

Within 24 hours of conclusion of physical tests, 8 copies of test results, including calibration curves and results of calibration tests.

SD-07 Certificates

Testing; G|COR

Qualifications of the commercial testing laboratory or Contractor's testing facilities.

1.4 SUBSURFACE DATA

Subsurface soil boring logs are appended to the end of Section 01000 GENERAL REQUIREMENTS (refer to Volume 2 of 2 of the specifications).

1.5 CLASSIFICATION OF EXCAVATION

No consideration will be given to the nature of the materials, and all excavation will be designated as unclassified excavation.

1.6 BLASTING

Blasting will not be permitted.

1.7 UTILIZATION OF EXCAVATED MATERIALS

1.7.1 Satisfactory Materials

Satisfactory material removed from excavations shall be taken to the dredged hole fill site (Lake Worth Wetland Restoration) or used, insofar as practicable, in the construction of fills, levees, embankments, subgrades, shoulders, bedding (as backfill), and for similar purposes. No

satisfactory excavated material shall be wasted. Coarse rock from excavations shall be taken to the dredged hole fill site (Lake Worth Wetland Restoration). No excavated material shall be disposed of to obstruct the flow of any stream, endanger a partly finished structure, impair the efficiency or appearance of any structure, or be detrimental to the completed work in any way.

#### 1.7.2 Unsatisfactory Materials

Unsatisfactory materials removed from excavations shall be removed offsite (from Peanut Island), and taken to a disposal site provided by and at the expense of the Contractor and approved by the COR. Materials containing organics may be utilized in Maritime Hammock planting area, placed to the lines and grades specified in the plans. Contractor may chip or burn (with acquisition of burn permit) organic material such as roots.

### PART 2 PRODUCTS

#### 2.1 SATISFACTORY FILL MATERIAL

Satisfactory fill material shall be any material on the Peanut Island construction site which is consistent with sediments represented in Volume 2 of the specifications and is free of roots, logs, and other objectionable debris. Rock boulders and scattered rocks collected within the project limits will be acceptable as fill. Refer to Sections 02320 FILLING AND LAKE WORTH WETLAND RESTORATION (FILL) and 02330 LEVEE CONSTRUCTION for additional information.

#### 2.2 UNSATISFACTORY FILL MATERIAL

Unsatisfactory material shall be any material on the Peanut Island construction site which contains man-made fills; trash; refuse; backfills from previous construction; and material classified as satisfactory which contains root and other organic matter.

### PART 3 EXECUTION

#### 3.1 DELETED

#### 3.2 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 conformity with the typical sections shown and the tolerances specified in paragraph FINISHING. Satisfactory excavated materials shall be transported to and placed in fill or embankment within the limits of the work. Unsatisfactory materials encountered within the limits of the work shall be excavated below grade and replaced with satisfactory materials as directed. Such excavated material and the satisfactory material ordered as replacement shall be included in excavation. Surplus satisfactory excavated material not required for fill or embankment shall be disposed of in areas approved for surplus material storage or designated waste areas. Unsatisfactory excavated material (with the exception of materials containing organics) shall be removed offsite (from Peanut Island) and taken to a disposal area provided by and at the expense of the Contractor, and approved by the COR. Materials containing organics may be utilized in Marine Hammock planting

area, placed to the lines and grades specified in the plans. During construction, excavation and fill shall be performed in a manner and sequence that will provide proper drainage at all times. Material required for fill or embankment in excess of that produced by excavation within the grading limits shall be excavated from other approved areas selected by the Contractor as specified.

### 3.2.1 Pre-Excavation Surveys

The Contractor shall survey the project area, delineate project features, and place rough and fine grade stakes.

### 3.2.2 Tidal Pond/Channels and Mangrove Protection

The Contractor shall stake the alignment of the tidal pond and tidal channels to be constructed within the footprint of the existing mangrove system (west side of Island). The alignment shall be approved by the Contracting Officer prior to pond/channel construction. The Contractor shall take proper precautions to avoid damage to existing mangroves and shall be responsible for replacement of vegetation or paying fines that result from harming wetland vegetation outside the footprint of the designated tidal channels. Tidal channel alignment, elevations and side slopes are shown in the drawings. Tidal channel alignment may be field adjusted by the Contracting Officer.

### 3.2.3 Cable/Utility Crossings

The Contractor shall be responsible for verifying the locations and depths of all utility crossings and take precautions against damages which might result from his operations, especially the sinking of dredge spuds and/or anchors into the Lake Worth Lagoon bottom. If any damage occurs as a result of his operations, the Contractor will be required to suspend operations until the damage is repaired and approved by the Contracting Officer. Costs of such repairs and downtime of the construction operations shall be at the Contractor's expense.

### 3.2.4 Bench Marks and Project Stakes

Maintain bench marks, monuments, project alignment stakes, grade stakes and other reference points. Reestablish if disturbed or destroyed, at Contractor's expense.

### 3.2.5 Temporary Haul Road

Temporary haul roads may be constructed and maintained as required. Haul roads shall be maintained until sufficient fill materials have been placed to support truck traffic. Haul road area shall be excavated and replaced with compacted fill. The existing Park pathway may not be used as a haul road.

### 3.2.6 Noise Control

All hauling and excavating/filling equipment shall be equipped with satisfactory mufflers or other noise abatement devices. The Contractor shall conduct his operations so as to comply with all Federal, State and local laws pertaining to noise.

### 3.2.7 Temporary Project Containment for Wetland Project Features

It is the responsibility of the Contractor to prevent tidal connection to wetland project areas during construction of wetland features by utilization of earthen plugs to be left in place until final wetland elevations have been established and approved by the Contracting Officer. The Contractor shall achieve tidal connection by removing earthen plugs within the inlets to the wetland project areas during a slack low and incoming tide only and while properly containing turbidities.

### 3.2.8 Temporary Stockpile of Wet Dredged Material

Dredged material generated from the creation of the wetland systems shall be temporarily stockpiled and contained in a bermed upland area to decant, prior to removal from the Island. Wet dredged material shall not be placed directly on barges.

### 3.2.9 Turbidity Control at the Island

The Contractor shall supply and utilize turbidity curtains while making connection between the new wetland system and tidal waters and at any time during the course of the project where there is a potential for water quality violations. The turbidity curtains shall remain in place until turbidities have subsided to background level. The Contractor shall effectively anchor the turbidity curtain and take precautions to insure that seagrasses are not damaged. The Contractor shall follow turbidity standards as outlined in Section 01411 TURBIDITY AND DISPOSAL (FILL) MONITORING. The Contractor shall retrieve the turbidity curtains as part of site restoration.

### 3.2.10 Tidal Gauge Placement and Monitoring

The Contractor shall establish two graduated tidal staff gauges (based on NGVD), one within the new tidal pond/lagoon system (west) and one within the new reef/lagoon system (southeast) to ascertain tidal flow into the system and fluctuations with regard to project elevations.

### 3.2.11 Ditches, Gutters, and Channel Changes

Excavation of ditches, gutters, and channel changes shall be accomplished by cutting accurately to the cross sections, grades, and elevations shown. Ditches and gutters shall not be excavated below grades shown. Excessive open ditch or gutter excavation shall be backfilled with satisfactory, thoroughly compacted, material or with suitable stone or cobble to grades shown. Material excavated shall be disposed of as shown or as directed, except that in no case shall material be deposited less than 4 feet from the edge of a ditch. The Contractor shall maintain excavations free from detrimental quantities of leaves, brush, sticks, trash, and other debris until final acceptance of the work.

### 3.2.12 Drainage Structures

Excavations shall be made to the lines, grades, and elevations shown, or as directed. Trenches and foundation pits shall be of sufficient size to permit the placement and removal of forms for the full length and width of structure footings and foundations as shown. Rock or other hard foundation material shall be cleaned of loose debris and cut to a firm, level, stepped, or serrated surface. Loose disintegrated rock and thin strata shall be removed. When concrete or masonry is to be placed in an excavated area, the bottom of the excavation shall not be disturbed. Excavation to the final grade level shall not be made until just before the concrete or

masonry is to be placed. Where pile foundations are to be used, the excavation of each pit shall be stopped at an elevation 1 foot above the base of the footing, as specified, before piles are driven. After the pile driving has been completed, loose and displaced material shall be removed and excavation completed, leaving a smooth, solid, undisturbed surface to receive the concrete or masonry.

### 3.3 OPENING AND DRAINAGE OF EXCAVATION

The Contractor shall notify the Contracting Officer sufficiently in advance of the opening of any excavation or borrow pit to permit elevations and measurements of the undisturbed ground surface to be taken. Except as otherwise permitted, excavation areas shall be excavated providing adequate drainage. Overburden and other spoil material shall be transported to designated spoil areas or otherwise disposed of as directed. The Contractor shall ensure that excavation of any area, or dumping of spoil material results in minimum detrimental effects on natural environmental conditions.

### 3.4 GRADING AREAS

Where indicated, work will be divided into grading areas within which satisfactory excavated material shall be placed in embankments, fills, and required backfills. The Contractor shall not haul satisfactory material excavated in one grading area to another grading area except when so directed in writing.

### 3.5 BACKFILL

Backfill adjacent to any and all types of structures shall be placed and compacted to at least 90 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless materials to prevent wedging action or eccentric loading upon or against the structure. Ground surface on which backfill is to be placed shall be prepared as specified in paragraph PREPARATION OF GROUND SURFACE FOR EMBANKMENTS. Compaction requirements for backfill materials shall also conform to the applicable portions of paragraphs PREPARATION OF GROUND SURFACE FOR EMBANKMENTS, EMBANKMENTS, and SUBGRADE PREPARATION, and Sections 02630 STORM-DRAINAGE SYSTEM and 02316 EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITIES SYSTEMS. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

### 3.6 PREPARATION OF GROUND SURFACE FOR EMBANKMENTS

Ground surface on which fill is to be placed shall be stripped of live, dead, or decayed vegetation, rubbish, debris, and other unsatisfactory material; plowed, disked, or otherwise broken up to a depth of 24 inches; pulverized; moistened or aerated as necessary; thoroughly mixed; and compacted to at least 90 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless materials. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment. The prepared ground surface shall be scarified and moistened or aerated as required just prior to placement of embankment materials to assure adequate bond between embankment material and the prepared ground surface.

### 3.6 EARTH EMBANKMENTS

Earth embankments shall be constructed from satisfactory materials free of organic or frozen material and rocks with any dimension greater than 3 inches. The material shall be placed in successive horizontal layers of loose material not more than 9 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 at least 90 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless materials. Compaction requirements for the upper portion of earth embankments forming subgrade for pavements shall be identical with those requirements specified in paragraph SUBGRADE PREPARATION. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

### 3.7 SUBGRADE PREPARATION

#### 3.7.1 Construction

Subgrade shall be shaped to line, grade, and cross section, and compacted as specified. This operation shall include plowing, disking, and any moistening or aerating required to obtain specified compaction. Soft or otherwise unsatisfactory material shall be removed and replaced with satisfactory excavated material or other approved material as directed. Rock encountered in the cut section shall be excavated to a depth of 6 inches below finished grade for the subgrade. Low areas resulting from removal of unsatisfactory material or excavation of rock shall be brought up to required grade with satisfactory materials, and the entire subgrade shall be shaped to line, grade, and cross section and compacted as specified. The elevation of the finish subgrade shall not vary more than 0.01 foot from the established grade and cross section.

#### 3.7.2 Compaction

Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment. Except for paved areas and railroads, each layer of the embankment shall be compacted to at least 98 percent of laboratory maximum density.

##### 3.7.2.1 Subgrade for Pavements

Subgrade for pavements shall be compacted to at least 98 percentage laboratory maximum density for the depth below the surface of the pavement shown. When more than one soil classification is present in the subgrade, the top 6 inches of subgrade shall be scarified, windrowed, thoroughly blended, reshaped, and compacted.

##### 3.7.2.2 Subgrade for Shoulders

Subgrade for shoulders shall be compacted to at least 98 percentage laboratory maximum density for the full depth of the shoulder.

### 3.8 SHOULDER CONSTRUCTION

Shoulders shall be constructed of satisfactory excavated material or as

otherwise shown or specified. Shoulders shall be constructed as soon as possible after adjacent paving is complete, but in the case of rigid pavements, shoulders shall not be constructed until permission of the Contracting Officer has been obtained. The entire shoulder area shall be compacted to at least the percentage of maximum density as specified in paragraph SUBGRADE PREPARATION above, for specific ranges of depth below the surface of the shoulder. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment. Shoulder construction shall be done in proper sequence in such a manner that adjacent ditches will be drained effectively and that no damage of any kind is done to the adjacent completed pavement. The completed shoulders shall be true to alignment and grade and shaped to drain in conformity with the cross section shown.

### 3.9 FINISHING

The surface of excavations, embankments, and subgrades shall be finished to a smooth and compact surface in accordance with the lines, grades, and cross sections or elevations shown. The degree of finish for graded areas shall be within 0.5 foot of the grades and elevations indicated except that the degree of finish for subgrades shall be specified in paragraph SUBGRADE PREPARATION. Gutters and ditches shall be finished in a manner that will result in effective drainage. The surface of areas to be turfed shall be finished to a smoothness suitable for the application of turfing materials.

### 3.10 PLACING TOPSOIL

On areas to receive topsoil, the compacted subgrade soil shall be scarified to a 2 inch depth for bonding of topsoil with subsoil. Topsoil then shall be spread evenly to a thickness of 6 inches and graded to the elevations and slopes shown. Topsoil shall not be spread when frozen or excessively wet or dry. Material required for topsoil in excess of that produced by excavation within the grading limits shall be obtained from offsite areas or areas indicated.

### 3.11 TESTING

Testing shall be performed by an approved commercial testing laboratory or by the Contractor subject to approval. If the Contractor elects to establish testing facilities, no work requiring testing will be permitted until the Contractor's facilities have been inspected and approved by the Contracting Officer. Field in-place density shall be determined in accordance with ASTM D 1556 (sand cone method), ASTM D 2167 (rubber balloon method), ASTM D 2937 (drive cylinder method) as applicable. When ASTM D 2922 is used, the calibration curves shall be checked and adjusted using only the sand cone method as described in ASTM D 1556. ASTM D 2922 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 gauges shall also be checked along with density calibration checks as described in ASTM D 3017; the calibration checks of both the density and moisture gauges shall be made at the beginning of a job on each different type of material encountered and at intervals as directed by the Contracting Officer. ASTM D 2937, Drive Cylinder Method shall be used only for soft, fine-grained, cohesive soils. When test results indicate, as determined by the Contracting Officer, that compaction is not as specified, the material shall be removed, replaced and 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.

#### 3.11.1 Fill and Backfill Material Gradation

One test per 500 cubic yards stockpiled or in-place source material. Gradation of fill and backfill material shall be determined in accordance with ASTM C 136 for conformance with ASTM D 2487 gradation limits. ASTM D 1140 shall be used for material finer than No. 200 sieve.

#### 3.11.2 In-Place Densities

a. One test per 5,000 square feet, or fraction thereof, of each lift of fill or backfill areas compacted by other than hand-operated machines.

b. One test per 5,000 square feet, or fraction thereof, of each lift of fill or backfill areas compacted by hand-operated machines.

c. One test per 500 linear feet, or fraction thereof, of each lift of embankment or backfill for roads.

#### 3.11.3 Check Tests on In-Place Densities

If ASTM D 2922 is used, in-place densities shall be checked by ASTM D 1556 as follows:

a. One check test per lift for each 5,000 square feet, or fraction thereof, of each lift of fill or backfill compacted by other than hand-operated machines.

b. One check test per lift for each 5,000 square feet, of fill or backfill areas compacted by hand-operated machines.

c. One check test per lift for each 500 linear feet, or fraction thereof, of embankment or backfill for roads.

#### 3.11.4 Moisture Contents

In the stockpile, excavation, or borrow areas, a minimum of two tests per day per type of material or source of material being placed during stable weather conditions shall be performed. During unstable weather, tests shall be made as dictated by local conditions and approved by the Contracting Officer.

#### 3.11.5 Optimum Moisture and Laboratory Maximum Density

Tests shall be made for each type material or source of material to determine the optimum moisture and laboratory maximum density values. One representative test per 500 cubic yards of fill and backfill, or when any change in material occurs which may affect the optimum moisture content or laboratory maximum density.

#### 3.11.6 Tolerance Tests for Subgrades

Continuous checks on the degree of finish specified in paragraph SUBGRADE PREPARATION shall be made during construction of the subgrades.

### 3.12 SUBGRADE AND EMBANKMENT PROTECTION

During construction, embankments and excavations shall be kept shaped and drained. Ditches and drains along subgrade shall be maintained to drain effectively at all times. 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 ballast, subbase, base, or pavement is placed. The storage or stockpiling of materials on the finished subgrade will not be permitted. No subbase, base course, ballast, or pavement shall be laid until the subgrade has been checked and approved, and in no case shall subbase, base, surfacing, pavement, or ballast be placed on a muddy, spongy, or frozen subgrade.

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## SECTION 02330

## LEVEE CONSTRUCTION

## 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 1998) Particle-Size Analysis of Soils
ASTM D 698	(1991; R 1998) Laboratory Compaction Characteristics of Soil Using Standard Effort 12,400 ft-lb/cu. ft.
ASTM D 1556	(2000) Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 1557	(2000) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft <sup>3</sup> (2,700 kN-m/m <sup>3</sup> ))
ASTM D 2216	(1998) Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D 2487	(2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2922	(2001) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 3017	(2001) Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 4253	(1993; R 1996) Maximum Index Density and Unit Weight of Soils Using a Vibratory Table
ASTM D 4254	(1991; R 1996) Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density
ASTM D 4318	(2000) Liquid Limit, Plastic Limit, and Plasticity Index of Soils

## ENGINEERING MANUALS (EM)

EM 385-1-1	(1996) Safety and Health Requirements Manual
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EM 1110-1-1000	(1993) Photogrammetric Mapping
EM 1110-1-1002	(1990) Survey Markers and Monumentation
EM 1110-1-1003	(1996) NAVSTAR Global Positioning System Surveying
EM 1110-1-1004	(1994) Deformation Monitoring and Control Surveying
EM 1110-1-2909	(1998; Chg 2) Geospatial Data and Systems
EM 1110-2-1003	(1994) Hydrographic Surveying

## 1.2 DEFINITIONS

### 1.2.1 Clearing

See Section 02230 CLEARING AND GRUBBING.

### 1.2.2 Grubbing

See Section 02230 CLEARING AND GRUBBING.

### 1.2.3 Satisfactory Materials

Satisfactory materials shall consist of materials classified in accordance with ASTM D 2487 as GW, GP, GM, GP-GM, GC, GP-GC, SW, SP, SP-SM, SM, SM-SC, SC, ML, ML-CL, CL, CL-ML, free from: roots and other organic matter; contamination from hazardous, toxic or radiological substances; trash, debris; and frozen materials. Not all satisfactory materials can be used in levee. Only the satisfactory materials stated above, meeting the additional or modified requirements of paragraph TYPES OF FILL MATERIALS, can be used for levee construction.

### 1.2.4 Unsatisfactory Materials

Unsatisfactory materials shall not be used in any levee or other required fill. Unsatisfactory materials include all other materials that are not defined above as satisfactory materials.

### 1.2.5 Embankment

The terms "levee" or "embankment" as used in these specifications are defined as the earth and rock fill portions of the levee structure or other fills related to the levee structure. All rock used in the construction of the levee shall be less than 3 inches in diameter.

### 1.2.6 Backfill

Backfill as used in this Section is defined as that fill material which cannot be placed around or adjacent to a structure until the structure is completed or until a specified time interval has elapsed after completion.

### 1.2.7 Excavation

Excavation shall consist of removal of material to the lines and grades shown on the drawings, or as otherwise directed or approved by the Contracting Officer and as described in paragraph EXCAVATION. See Section

02316 EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITIES SYSTEMS.

#### 1.2.8 Classification of Soils

Materials used to construct the embankments and for backfills shall be classified in accordance with ASTM D 2487.

##### 1.2.8.1 Cohesionless and Cohesive Materials

Cohesionless materials shall include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic.

#### 1.2.9 Degree of Compaction

##### 1.2.9.1 Cohesive Material

Degree of compaction shall be expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 698 and ASTM D 1557, abbreviated hereinafter as percent laboratory maximum density.

##### 1.2.9.2 Cohesionless Material

Degree of compaction shall be expressed as a percentage of the relative density in accordance with ASTM D 4253 and ASTM D 4254.

#### 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

###### Shoring, Sheeting, and Bracing Plan; G|COR

Submit a detailed shoring, sheeting and bracing plan 60 days prior to the beginning of any excavation so supported. The Plan for shoring, sheeting and bracing shall be prepared and certified by licensed professional engineer. The Plan shall include drawings and design computations of the proposed shoring, sheeting, and bracing, and documentation, showing details of the coordination and approval of shoring, sheeting, and bracing by the applicable parties. Approval of the detailed Plan shall be obtained from the Contracting Officer prior to starting the work. If necessary, the Plan shall be modified as required to meet field conditions, and the modifications shall be approved prior to use.

###### Excavation Plan; G|COR

Submit a written excavation plan ~~60 days prior to the beginning of any excavation~~ at the Preconstruction Conference. Approval of the detailed Plan shall be obtained from the Contracting Officer prior to starting the work. If necessary, the Plan shall be modified as required to meet field conditions, and the modifications shall be approved prior to use. As a minimum, the

Plan shall contain, the following:

a. Proposed methods for preventing interference with, or damage to, existing underground or overhead utility lines, trees designated to remain and other man-made facilities or natural features designated to remain within or adjacent to the construction rights-of-way.

b. Provision for coordinating the work with other contractors working in the construction rights-of-way or on facilities crossing or adjacent to this work.

c. The proposed methods for controlling surface and ground water in the borrow areas and required excavations.

d. Stockpiling plan for embankment material before it is transported to the project site showing locations, stockpile heights, slopes, limits, and drainage around the stockpile areas.

e. A complete listing of equipment used for excavation and to transport the excavated material.

f. The Contractor's proposed sequence of work for excavating the borrow areas with plan and cross sectional views showing starting and final work locations and clearing, grubbing and stripping limits.

g. The Contractor's proposals for conserving arable land and for making optimum use of available borrow, including the Contractor's proposed methods for grading the bottom of the borrow areas after completing use of the borrow areas.

h. The Contractor's proposed road pattern, and plan for implementing dust control measures.

Plan of Operations; G|COR

Thirty (30) days prior to commencement of haul road construction or placing embankment and backfill whichever is earlier, the Contractor shall submit for approval a Plan of Operations for accomplishing all embankment and backfill construction and for the location and construction of haul roads. This Plan shall include, but not be limited to, the Contractor's proposed sequence of construction for embankment and backfill items, and methods and types of equipment to be utilized for all embankment and backfill operations, including transporting, placing, and compaction. This plan shall also include the names and addresses of the commercial testing labs/engineering firms which will perform the soil testing and inspection and describe how all required soils testing will be performed.

Compliance Survey

Submit a copy of the records of each compliance survey the next work day following the survey.

SD-02 Shop Drawings

Contractor-Furnished Rights-of-Way for Drainage

If private property is to be used for drainage, submit written evidence that the right-of-way has been obtained from the property owner for drainage on his property. Written evidence shall consist of an authenticated copy of the easement under which the Contractor acquired the property rights and access thereto, prepared and executed in accordance with applicable State and local requirements.

#### SD-07 Certificates

Nuclear Density; G|COR

Nuclear density testing equipment shall be used in accordance with ASTM D 2922 and ASTM D 3017. In addition, the following condition shall apply:

a. Prior to using the nuclear density testing equipment on the site, the Contractor shall submit to the Contracting Officer a certification that the operator has completed a training course approved by the nuclear density testing equipment manufacturer, the most recent data sheet from the manufacturer's calibration, and a copy of the most recent statistical check of the standard count precision.

b. The nuclear density testing equipment shall be capable of extending a probe a minimum of 6 inches down into a hole.

#### 1.4 SURVEYS

a. Surveys to verify that the dimensions, slopes, lines and grades conform to those shown on the drawings shall be the responsibility of the Contractor. All surveys that are to be utilized for payment are the responsibility of the Contractor and shall be performed under the direction of a Professional Surveyor registered in the State of Florida. Surveys shall be performed in accordance EM 1110-1-1000, EM 1110-1-1002, EM 1110-1-1003, EM 1110-1-1004, EM 1110-1-2909, and EM 1110-2-1003.

b. All horizontal coordinates shall be based on North American Datum (NAD) 27, Florida State Plane Coordinate System East Zone. All elevations shall be based on the National Geodetic Vertical Datum (NGVD) 1929. The Contractor shall use the project benchmarks established near the construction sites as shown in the contract plans and the control monument descriptions appended to the end of Section 01000 GENERAL REQUIREMENTS.

c. As a condition precedent to substantial completion, the Contractor is responsible for providing the Government record drawings depicting constructed conditions. Record Drawings of the project shall include the following information:

(1) Horizontal location and vertical elevations at 200 foot intervals of the levee, perimeter swale, basin.

(2) Vertical elevations for the levee perimeter road and stubs, levee crest road, and boardwalks. Grade elevations shall be shown at the location of each proposed elevation provided in the contract plans.

(3) Horizontal location and vertical elevations of all drainage pipes.

(4) Horizontal and vertical dimensions of water control structures including flumes, weir crest and invert elevations.

d. All hard copy survey documents submitted to the Contracting Officer shall be signed and sealed by a Professional Surveyor registered in the State of Florida. All electronic documents submitted to the County shall be in ASCII and AutoCad format. Each drawing shall be a separate DWG file.

#### 1.5 SYSTEM DESCRIPTION

The work covered by this section consists of furnishing all equipment, labor, materials, and incidentals, and performing all operations necessary for the clearing, grubbing, and stripping of the areas specified herein or indicated on the drawings, and for the removal and disposal of cleared, grubbed, and stripped materials, and refilling of holes resulting from grubbing excavation of borrow areas and for all other excavations incidental to the construction of levees and structures as specified and shown; foundation preparation and the construction of levee embankments, including new levee, enlargement of existing levee, backfill of inspection trenches, cutoff trenches, berms, road crossings, backfill at drainage structures, and other incidental earthwork as may be necessary to complete the levee as specified herein and as shown on the drawings. All work under this Section shall comply with the requirements of EM 385-1-1.

#### 1.6 GENERAL CONDITIONS

##### 1.6.1 Lines and Grades

The embankment and backfill shall be constructed to the lines, grades, and cross sections indicated on the drawings, unless otherwise directed by the Contracting Officer. The Government reserves the right to increase or decrease the foundation widths and embankment slopes or to make such other changes in the embankment or backfill sections as may be deemed necessary to produce a safe structure. Changes in quantities resulting from such revisions will not constitute justification for change in contract unit prices, except as provided for in Clause VARIATIONS IN ESTIMATED QUANTITIES of Section 00700 CONTRACT CLAUSES. The end slopes and side slopes of partial fill sections shall not be steeper than 1 vertical on 3 horizontal, unless otherwise shown on the drawings.

##### 1.6.2 Conduct of the Work

The Contractor shall maintain and protect the embankment and backfill in a satisfactory condition at all times until final completion and acceptance of all work under the contract. If, in the opinion of the Contracting Officer, the hauling equipment causes horizontal shear planes or slicken sides, rutting, quaking, heaving, cracking, or excessive deformation of the embankment or backfill, the Contractor shall limit the type, load, or travel speed of the hauling equipment on the embankment or backfill. The Contractor may be required to remove, at his own expense, any embankment material placed outside of prescribed slope lines. Any approved embankment or backfill material which is lost in transit or rendered unsuitable after being placed in the embankment or backfill and before final acceptance of the work shall be replaced by the Contractor in a satisfactory manner and no additional payment will be made therefore. The Contractor shall

excavate and remove from the embankment or backfill any material which is unsatisfactory and shall also dispose of such material and refill the excavated area as directed, all at no cost to the Government.

#### 1.6.3 Materials

Materials for embankment and backfill construction will be obtained from required excavation. Materials obtained from required excavation which meet or which can be processed to meet the requirements for each embankment material, or any other material required for this project, as specified herein, may be utilized in the embankment or as backfill. All roots, limbs, and wood fragments, and rocks in excess of 3 inches in diameter shall be removed from embankment materials. Materials containing sod, other organic or perishable material, trash, debris, and frozen materials shall not be used in the embankment.

#### 1.6.4 Haul Roads

Haul roads shall be located and constructed as approved by the Contracting Officer. Prior to the commencement of construction the Contractor shall submit for approval a site plan detailing the location of all haul roads within the project limits. Haul roads between the borrow site and the levee embankment shall be located within the limits approved by the Contracting Officer. The limits of the borrow haul road shall be clearly marked in the field using construction fencing or similar methods approved by the Contracting Officer. Areas on each side of the borrow haul road corridor shall not be disturbed. Haul roads shall be constructed to maintain the intended traffic, be free draining, and be maintained in good condition throughout the contract period. Any haul road which crosses any creek or drainage channel shall be constructed, and maintained by the Contractor so as to not flood either upstream areas by restricting stream flows or flood downstream areas by the release of any stored water in the event that the crossing fails for any cause. Haul roads constructed during the contract duration shall be removed after work is completed and the impacted area restored to its preconstruction conditions. The Contractor shall plow and/or scarify or otherwise loosen all access and haul roads other than existing roads to a minimum of 6 inches deep and the surface shall be left in a smooth condition. All haul roads within the right-of-way that will remain as public thoroughfares after construction shall be cleaned daily and maintained in the preconstruction condition. All costs associated with these haul roads shall be considered as a subsidiary obligation of the Contractor.

#### 1.6.5 Ramps and Crossings

Ramps and crossings shall be constructed only by adding material to the levee crown and slopes. Ramps shall have a 20-foot crown width, a grade not to exceed 5 percent, and 1 vertical on 20 horizontal side slopes.

#### 1.6.6 Stockpiling

Any onsite stockpiling of embankment materials shall be in accordance with subparagraph "Stockpiles" of Section 02316 EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITIES SYSTEMS. No payment will be made for such stockpiling nor for the reloading and hauling of these materials to their final position.

#### 1.6.7 Slides and Foundation Failures

When sliding occurs in any part of the embankment and backfills prescribed in this Section after they have been placed, but prior to final acceptance of all work under the contract, the Contractor shall repair the slide as directed by the Contracting Officer. When the slide is caused through the fault of the Contractor, the repair shall be made at no additional cost to the Government. When the slide is not the fault of the Contractor, an equitable adjustment in the contract price shall be made pursuant to the Clause CHANGES of Section 00700 CONTRACT CLAUSES to cover the cost of the repairs.

#### 1.6.8 Protection of Existing Man-Made Facilities and Natural Features

Embankment construction shall be conducted in such a manner as to avoid damage to trees left standing and trees outside the embankment areas, existing buildings, man-made facilities and natural features, with due regard to the safety of employees and others, and in compliance with EM 385-1-1.

#### 1.6.9 Drainage

The Contractor shall not block or restrict the flow in a natural drain, existing culvert, ditch or channel at any time without obtaining prior written approval from the Contracting Officer. This approval shall not relieve the Contractor from responsibility for any damage caused by his operation. Surface water shall be directed away from excavations and construction sites so as to prevent erosion and undermining of foundations.

Diversion ditches, dikes, and grading shall be provided and maintained as necessary during construction. Excavated slopes and backfill surfaces shall be protected to prevent erosion and sloughing. Excavation shall be performed so that the site and the area immediately surrounding the site and affecting operations at the site shall be continually and effectively drained.

### 1.7 REGULATORY REQUIREMENTS

The State statutory and regulatory requirements listed below form a part of this specification to the extent referenced.

### 1.8 PROJECT SITE CONDITIONS

#### 1.8.1 Protection of Cultural and Natural Resources

All work and Contractor operations shall comply with the requirements of Section 01355 ENVIRONMENTAL PROTECTION and with the requirements of this Section.

#### 1.8.2 Protection of Existing Man-Made Facilities and Natural Features

Trees within the clearing area shall be felled in such a manner as to avoid damage to trees left standing and trees outside the clearing area, existing buildings, man-made facilities and natural features, with due regard to the safety of employees and others, and in compliance with EM 385-1-1. Excavation shall be conducted in such a manner as to avoid damage to trees left standing and trees outside the clearing and excavation area, existing buildings, man-made facilities and natural features, with due regard to the safety of employees and others, and in compliance with EM 385-1-1. Existing utility lines that are shown on the drawings or the locations of which are made known to the Contractor prior to excavation and that are to be retained shall be protected from damage during excavation. When utility

lines that are to be removed are encountered within the area of operations, the Contractor shall notify the applicable utility companies in sufficient time for measures to be taken to prevent interruption of the services.

### 1.8.3 Subsurface Data

See boring logs and laboratory data appended to the end of Section 01000 GENERAL REQUIREMENTS (refer to Volume 2 of 2 of the Specifications).

### 1.9 MERCHANTABLE TIMBER

Merchantable timber remaining within the areas to be cleared on or after the date of award of this contract may be disposed of as the Contractor sees fit, as long as such merchantable timber is either removed from the rights-of-way or is satisfactorily disposed of in accordance with the paragraphs DISPOSITION OF CLEARED, GRUBBED, AND STRIPPED MATERIAL and DISPOSITION OF EXCAVATED MATERIAL and the Contractor complies with all applicable State and local regulations and laws.

### 1.10 SEQUENCE OF WORK

All clearing and grubbing work shall be completed at least 300 feet in advance of embankment construction. In locations where work on drainage structures is performed prior to embankment construction, all clearing and grubbing shall be completed for the structure at least 100 feet on each side of the structure, measured along the levee centerline and 100 feet perpendicular to the structure. If regrowth of vegetation or trees occurs after clearing and grubbing and before placement of embankment, the Contractor will be required to clear and grub again prior to embankment construction.

## PART 2 PRODUCTS

### 2.1 HAUL ROAD MATERIALS

#### 2.1.1 Types of Fill Materials

##### 2.1.1.1 Select Fill

Select fill embankment material shall be obtained from required excavation. The select fill material shall consist of satisfactory materials classified in accordance with ASTM D 2487 and as specified in subparagraph "Satisfactory Materials" above.

##### 2.1.1.2 Bedding

See Section 02380 STONE PROTECTION.

##### 2.1.1.3 Topsoil

See Section 02935 REVEGETATION.

## PART 3 EXECUTION

### 3.1 CLEARING

See Section 02230 CLEARING AND GRUBBING.

### 3.2 GRUBBING

See Section 02230 CLEARING AND GRUBBING.

### 3.2.1 Filling of Holes

All holes caused by grubbing operations and removal of pipes and drains, excluding holes in borrow areas, shall be filled with satisfactory material as specified in subparagraph "Select Fill" above. This material shall be placed in 12-inch layers to the elevation of the adjacent ground surface and each layer compacted to a density at least equal to that of the adjoining undisturbed material.

### 3.3 DISPOSITION OF CLEARED AND GRUBBED MATERIAL

See Section 02230 CLEARING AND GRUBBING.

#### 3.3.1 Burning

See Section 02230 CLEARING AND GRUBBING.

#### 3.3.2 Chipping

See Section 02230 CLEARING AND GRUBBING.

#### 3.3.3 Removal from Site of Work

See Section 02230 CLEARING AND GRUBBING.

### 3.4 SHORING, SHEETING, AND BRACING

Shoring, sheeting, and bracing shall be installed where required for the protection of existing natural features and man-made facilities, for the safety of workers and the public, in compliance with EM 385-1-1, and to insure the integrity of the embankment. Shoring, sheeting and bracing shall not be used in lieu of the required excavation slopes. Shoring, sheeting, and bracing shall be adequately designed and properly installed to withstand anticipated loads. Shoring, sheeting and bracing shall be planned and designed by a registered professional engineer. The Contractor shall submit a plan for shoring, sheeting, and bracing in accordance with paragraph SUBMITTALS. All shoring, sheeting and bracing shall be removed as embankment and backfill operations progress.

### 3.5 DEWATERING AND DIVERSION

Surface and groundwater control shall be accomplished in coordination with the required excavation and embankment construction. Surface and/or groundwater control may necessitate the use of temporary diversion ditches, cofferdams and/or dewatering by the use of pumping. Methods for care of surface water and for controlling the surface and groundwater levels shall be subject to approval of the Contracting Officer.

### 3.6 EXCAVATION

Excavation shall consist of removal of material in preparing the foundations to the lines and grades shown on the drawings, removal of material from ditches and channels to the lines and grades shown on the drawings, removal of objectionable materials and obtaining required fill materials from the borrow areas. Blasting will not be permitted. Over excavation shall be backfilled to grade with similar over excavated

material or satisfactory material and compacted to a density of at least that of the surrounding material.

### 3.6.1 Over Excavation

#### 3.6.1.1 Outside Limits of Levee Foundations or Structures

Over excavation outside the limits of the foundations of levees or structures shall be backfilled to grade with similar over excavated material or satisfactory material and compacted to a density of at least that of the surrounding material.

#### 3.6.1.2 Within Limits of Levee Foundations or Structures

Over excavation within the limits of the foundations of levees or structures shall be backfilled to grade in accordance with paragraph PREPARATION OF FOUNDATION, PARTIAL FILL SURFACES AND ABUTMENTS.

### 3.6.2 Structures

Excavations for structures shall conform to the dimensions and elevations indicated for each structure and footing, except as specified hereinafter, and shall include trenching for utility and foundation drainage systems to a point 10 feet beyond each structure and all work incidental thereto. Excavation shall extend a sufficient distance from walls and footings to allow for placing and removal of forms. Satisfactory material removed below the depths indicated without specific direction of the Contracting Officer shall be replaced at no additional cost to the Government and filled in accordance with paragraph OVER EXCAVATION. Over excavation below required invert elevations or bottoms of footings shall be backfilled with lean concrete at no additional cost to the Government. No footings shall be constructed on unsatisfactory material as determined by the Contracting Officer. Excessively wet and/or soft material in subgrades resulting from water ponding in footing excavations shall be removed and replaced with satisfactory material compacted to the density of the surrounding undisturbed material.

### 3.6.3 Channels

Channels shall be excavated at the locations and to the lines and grades shown on the drawings and in accordance with paragraph TOLERANCES.

### 3.6.4 Ditches

Drainage ditches shall be excavated at the locations and to the lines and grades shown on the drawings and in accordance with paragraph TOLERANCES.

### 3.6.5 Slopes and Surcharges

Temporary excavation slopes for any channel, structure excavation, or other required excavation shall not be steeper than the specified finished slope or the specified construction slope, as applicable, and subject to the approval of the Contracting Officer. This may be accomplished by benching the temporary slope so that the average slope is not steeper than the specified slope. In addition, no temporary, permanent, or construction slope shall be surcharged with excavated or stockpiled material or with heavy construction equipment which would have the same effect as the surcharge material. The toe of stockpiled material shall be maintained a minimum distance back from the top of the finished excavation equal to the

depth of the excavation. The maximum height of such stockpile without causing instability of the excavation slope shall be determined by the Contractor. Any slide or other adverse conditions caused by failure of the Contractor to maintain these conditions shall be considered the responsibility of the Contractor and remedial measures shall be at the Contractor's expense.

#### 3.6.6 Borrow Areas

Borrow areas shall be excavated to the extent necessary to obtain satisfactory material within the lines and grades as shown on the drawings.

When the material necessary for the construction of the embankment and berms cannot be obtained from adjacent borrow areas, it shall be obtained from other Government-furnished borrow areas. The permissible depth(s) in the borrow areas are indicated on the drawings. Any excavation below the depths and slopes specified herein or shown on the drawings shall be backfilled by the Contractor, at the Contractor's expense, to the specified permissible excavation line, with satisfactory material as specified by the Contracting Officer to a density of at least that of the surrounding material. Borrow areas shall be drained and kept dry during excavation. Where possible, unsatisfactory materials in borrow areas shall not be removed.

#### 3.6.7 Existing Levees and Spoil Banks

The existing spoil bank between Station 25+00 and Station 31+00, adjacent to the Port of Palm Beach Spoil Area, and the existing spoil area between Station 10+00 and Station 16+00, adjacent to the Palm Beach County Parks parcel, shall be incorporated into the proposed levee as shown on the drawings.

#### 3.6.8 Utilities

Excavations for pipe beds shall be shaped to fit the contour of the pipe over a width of not less than 0.6 of the pipe diameter, or as shown on the drawings.

#### 3.6.9 Riprap and Bedding

Excavations for riprap and bedding shall be performed at the locations and to the lines and grades shown.

#### 3.7 TOLERANCES

A tolerance of 0.2 foot above or below the prescribed grade will be allowed in the excavation for channels, ditches, inspection trenches, cutoff trenches, and excavations for riprap and bedding.

All embankments and backfills shall be constructed to the grades, lines, and cross-sections shown on the drawings. At all points a tolerance of 0.5 foot above or below the prescribed grade will be permitted in the final dressing, provided that any excess material is so distributed that the crown of the levee drains and that there are no abrupt humps or depressions in any surfaces.

#### 3.8 SLIDES

In case sliding occurs in any part of the excavations prescribed in this Section after they have been excavated, but prior to final acceptance of

all work under the contract, the Contractor shall repair the slide as directed by the Contracting Officer. In case the slide is caused through the fault of the Contractor, it shall be repaired at no cost to the Government. In case the slide is due to no fault of the Contractor, an equitable adjustment in the contract price will be made for the repairs in accordance with the Clause CHANGES of Section 00700 CONTRACT CLAUSES.

### 3.9 SURFACE DRAINAGE OF COMPLETED AREAS

The finished embankment areas shall be graded to the lines and grades shown on the drawings. The surface shall be free from sharp ridges, gullies, potholes, sinkholes, and any other surface irregularities. A tolerance of 0.5 foot above or below the prescribed grade will be allowed provided that the surface drains in the direction as indicated on the drawings.

### 3.10 MAINTENANCE OF WORK

#### 3.10.1 Debris Removal

The Contractor shall maintain all ditch and channel excavations free from leaves, brush, sticks, trash, and other debris until final acceptance of all work under the contract at no additional cost to the Government.

#### 3.10.2 Sediment Removal

Prior to final acceptance of all work under this contract, the removal of sediments from ditch or channel excavations shall be required to restore design grade and section at no additional cost to the Government.

### 3.11 DISPOSITION OF EXCAVATED MATERIALS

#### 3.11.1 Satisfactory Materials

Satisfactory excavated material shall be incorporated in the appropriate zones of the embankment. Satisfactory material shall consist of material as defined in subparagraph "Satisfactory Materials" of paragraph DEFINITIONS above. When direct placement is not practicable, satisfactory material from the excavation shall be stockpiled for subsequent use in parts of the work for which it is specified herein and/or as indicated on the drawings. Satisfactory materials in excess of the quantity necessary to construct backfills and embankments shall be disposed of at the Lake Worth Wetland Restoration (Fill) site.

#### 3.11.2 Unsatisfactory Materials

Excavated material deemed unsatisfactory for levee construction shall be disposed of as described in subparagraph "Unsatisfactory Materials" of Section 02300 EARTHWORK.

### 3.12 PREPARATION OF FOUNDATION, PARTIAL FILL SURFACES AND ABUTMENTS

#### 3.12.1 Earth

After excavation (as described in paragraph EXCAVATION) or stripping (as described in subparagraph "Clearing, Grubbing and Stripping" of paragraph FIELD QUALITY CONTROL) of the embankment foundation to the extent indicated or otherwise required, the sides of stump holes, test pits, and other similar cavities or depressions shall be broken down so as to flatten out the slopes, and the sides of the cut or hole shall be scarified to provide

bond between the foundation material and the fill. Unless otherwise directed, each depression shall be filled with the same material type that is to be placed immediately above the foundation. The fill shall be placed in layers, moistened, and compacted in accordance with the applicable provisions of paragraphs PLACEMENT AND SPREADING, MOISTURE CONTROL, and COMPACTION for the specific material type. Materials which cannot be compacted by roller equipment because of inadequate clearances shall be compacted with power tampers in accordance with the paragraph COMPACTION for the specific material type. After filling of depressions and immediately prior to placement of compacted fill in any section of the embankment, the foundation of such section shall be loosened thoroughly by scarifying, plowing, disking or harrowing to a minimum depth of 6 inches, and the moisture content shall be adjusted to the amount specified in paragraph MOISTURE CONTROL for the appropriate type of material. After removal of roots or other debris turned up in the process of loosening, the entire surface of the embankment foundation area shall be compacted by complete coverages of the compaction equipment as specified for the appropriate type of fill. Immediately prior to placement of compacted fill on or against the surfaces of any partial fill section, all soft or loose material, all material containing cracks or gullies, and all material that does not conform with the specified zoning of the embankment shall be removed. The remaining surface of the partial fill shall be loosened by scarifying, plowing, disking or harrowing to a minimum depth of 6 inches, and the moisture content shall be adjusted as specified in paragraph MOISTURE CONTROL for the appropriate type of material. The surface of the partial fill section upon which fill is to be placed shall then be compacted as hereinafter specified for the appropriate type of fill. No separate payment will be made for loosening and rolling the foundation area, the abutment area, or the surfaces of partial fill sections, but the entire cost thereof shall be included in the applicable contract price for fill.

### 3.12.2 Rock Foundation

All rock surfaces upon which or against which embankment materials are to be placed shall be excavated (as described in paragraph EXCAVATION) or stripped (as described in subparagraph "Clearing, Grubbing and Stripping" of paragraph FIELD QUALITY CONTROL). Prior to the placement of embankment material upon or against a rock surface, all open joints and cracks in that surface shall be filled with mortar to the depths cleaned. Those portions of such rock surfaces where, in the opinion of the Contracting Officer, the compaction of the embankment materials cannot be accomplished satisfactorily with power tampers or other specified compaction equipment, shall be filled with mortar or concrete as directed to the extent necessary to permit satisfactory use of the compaction equipment. In no case shall a thin coat of mortar be left on smooth, intact rock surfaces. Large rock overhangs and protrusions shall be removed and rock surfaces shall be laid back to a slope no steeper than 4V on 1H by the use of pre-splitting or line drilling techniques in such a manner as to minimize damage to the underlying rock, or the spaces beneath overhangs and around protrusions shall be filled with tamped concrete so that satisfactory compaction of embankment materials can be accomplished. Rock surfaces shall not be more than 2 feet in height, and benches of sufficient width shall be provided as necessary so that the average slope of any rock face is not steeper than 4V on 1H. Mortar and concrete, including forming as necessary, shall conform with the applicable provisions of Section 03300 CAST-IN-PLACE CONCRETE.

### 3.12.3 Benching

Benching into existing levee embankment and abutments is required in order to place and compact the material in horizontal layers. The vertical face cut into the existing embankment or abutment resulting from the benching operation shall not exceed 12 inches in height.

### 3.13 TEST FILL STRIPS

#### 3.13.1 General

Before beginning embankment construction, the Contractor shall construct test strip(s) for fill materials to demonstrate that the equipment and compaction procedure will achieve the moisture-dry density relationship as specified. The test strips may be incorporated as part of the final embankment, if the fills meet the requirements of the specifications. The test strips shall be constructed using materials from the borrow sources which have been approved by the Contracting Officer. Each test strip shall be of sufficient size to allow compaction equipment to achieve normal operating speed over a 50-foot length. The test strip shall be a minimum of 2 times wider than the compaction equipment. Each test strip shall be constructed with a minimum of 4 lifts. Prior to the construction of the test strips, the foundation (subgrade) shall be proof rolled as specified in subparagraph "Earth" of paragraph PREPARATION OF FOUNDATION, PARTIAL FILL SURFACES AND ABUTMENTS above and an 8-inch-thick subbase layer installed. The subbase layer shall consist of the same material to be used in the test strip and shall be spread and compacted to the same requirements. The test strips shall be constructed in accordance with the applicable provisions of paragraphs PLACEMENT AND SPREADING, MOISTURE CONTROL, and COMPACTION for the specific material type. The fill material shall be placed and spread in layers in accordance with the applicable provisions of paragraph PLACEMENT AND SPREADING for the specific material type. Each layer of the fill shall be compacted with a minimum of 4 complete coverages using the specified compaction equipment, and as many additional coverages as may be required to achieve the specified density. Even if the results from the test strips show that the required densities can be obtained with less than 4 coverages by the compaction equipment, the Contractor shall still be required to compact the impervious and random fills with a minimum of 4 complete coverages. If the use of the proposed compaction equipment causes shearing of the fill, laminations in the fill, or results in inadequate compaction, the Contracting Officer may direct that such roller be removed from the fill and that another appropriate tamping roller be used.

#### 3.13.2 Testing and Reporting Requirements for Test Strips

Prior to construction of the test strips, the Contractor shall perform 1 laboratory compaction test for each type of material used in test strips. The compaction tests shall be performed in accordance with the requirements specified in subparagraph "Materials Testing" of paragraph FIELD QUALITY CONTROL. Test results shall be submitted to the Contracting Officer before construction of the test strips. After placement and spreading of the fill in the test strip, but prior to compaction, five samples shall be obtained from each lift for moisture content determination in accordance with ASTM D 2216. After compaction of the fill, a minimum of 5 in-place nuclear density and moisture content tests (in accordance with ASTM D 2922 and ASTM D 3017, respectively) and 1 sand cone density test (in accordance with ASTM D 1556) shall be performed on each lift. One sample shall be obtained from each test strip for classification testing as specified in subparagraph "Materials Testing" of paragraph FIELD QUALITY CONTROL. All testing and sampling locations shall be determined by the Contracting Officer. The

Contractor's QC personnel shall monitor and document construction and testing of the test strips. Documentation shall include weather conditions, soil type, spreading and compaction equipment type, lift thickness, number of coverages, moisture content, dry density, and a plan showing approximate location of sampling and testing. Documentation of the test strip construction procedures and results of all testing shall be provided to the Contracting Officer. Full scale embankment construction shall not commence until the equipment and placement methods are approved by the Contracting Officer.

### 3.14 PLACEMENT AND SPREADING

#### 3.14.1 General

Prior to beginning embankment placement on the levee foundation the Contractor shall notify the Contracting Officer that the foundation is ready to receive fill. No fill shall be placed on any part of the embankment foundation until such areas have been inspected and given final approval by the Contracting Officer.

##### 3.14.1.1 Gradation and Distribution

The gradation and distribution of materials throughout each zone of the levee shall be such that the embankment will be free from lenses, pockets, streaks, and layers of material differing substantially in texture or gradation from surrounding material of the same class. If lenses, pockets, or layers of materials differing substantially in texture or gradation from surrounding material occur in the spread material, the layer shall be mixed by harrowing or any other approved method to blend the materials. During the placing and spreading process, the Contractor shall maintain at all times a force of workers adequate to remove all roots, debris, and oversize stone from all embankment materials. All stones and rock fragments larger than 3 inches in any dimension shall be removed from the fill. No fill shall be placed upon a frozen surface, nor shall snow, ice, or frozen earth be incorporated in the embankment.

##### 3.14.1.2 Foundations and Partial Embankment Fills

The foundations and all partial embankment receiving fills shall be kept thoroughly drained. Placing operations will be such as to avoid mixing of materials from adjacent sections as much as practicable.

##### 3.14.1.3 Equipment Traffic

Equipment traffic on any embankment zone shall be routed to distribute the compactive effort as much as practicable. Ruts formed in the surface of any layer of spread material will be filled before that material is compacted. If, in the opinion of the Contracting officer, the compacted surface of any layer of material is too smooth to bond properly with the succeeding layer, the surface shall be loosened by scarifying or other approved methods before material from the succeeding layer is placed.

##### 3.14.2 Placement of Embankment and Backfill Against Structures

No embankment or backfill shall be placed on or against concrete less than 7 days after placement or 70 percent of the design strength, without prior approval of the Contracting Officer. Crawler-type tractors, vibratory equipment and other similar compaction equipment shall not be used within 4 feet of any completed or partially completed structure. Compaction within

4 feet of completed or partially completed structures shall be accomplished by the use of mechanical hand tampers, vibrating plates, or other approved methods and equipment. The Contractor shall ensure that compaction operations do not damage any existing utilities. Any damage caused by the Contractor's operation shall be repaired at the Contractor's expense.

#### 3.14.3 Select Fill

The Contractor may construct the Levee concurrent with the Lake Worth Wetland Restoration (Fill) Project. The Contractor is responsible for allocating adequate quantities of acceptable select fill for the completion of the Levee to the line and grades shown on the plans.

The dike and fill shall be constructed to the lines, grades, and cross sections indicated on the drawings. Prior to placement of the fill material, the surface of the previously compacted lift shall be thoroughly scarified to a depth of 2 inches and moistened as required for bonding to overlying material. Embankment materials shall be thoroughly mixed and spread by bulldozers or other approved means in approximately horizontal layers not to exceed 1 foot in thickness. In order to obtain a thorough mixture of embankment materials, the material shall be disked or harrowed.

Layers should be started full out to the slope stakes and shall be carried substantially horizontal and parallel to the levee centerline with sufficient crown or slope to provide satisfactory drainage during construction.

#### 3.14.4 Uncompacted Fill

Uncompacted fill shall be placed in approximately horizontal layers not exceeding 12 inches in thickness. The layers shall be uniformly spread, distributed, and otherwise manipulated during placement to such an extent that individual loads of material deposited on the fill will not remain intact, and large, open voids in the fill will be eliminated. Lifts shall not be placed in a manner which causes shrinkage cracks and open voids from developing in previously placed lifts. Layers shall be started full out to the slope stakes and shall be carried in lifts approximately horizontal and parallel to the centerline with sufficient crown or slope to provide satisfactory drainage during construction. The materials shall be placed or spread in layers, the first layer not more than 12 inches in thickness and the succeeding layers not more than 12 inches in thickness prior to compaction. Compaction other than that obtained by the controlled movement of the hauling and spreading equipment over the area will not be required.

### 3.15 MOISTURE CONTROL

#### 3.15.1 General

The materials in each layer of the fill shall contain the amount of moisture, within the limits specified below or as directed by the Contracting Officer, necessary to obtain the required compaction. Material that is not within the specified moisture content limits after compaction shall be reworked to obtain the specified moisture content, regardless of density.

##### 3.15.1.1 Insufficient Moisture for Suitable Bond

If the top or contact surfaces of a partial fill section become too dry to permit suitable bond between these surfaces and the additional fill to be

placed thereon, the Contractor shall loosen the dried materials by scarifying or disking to such depths as may be directed by the Contracting Officer, shall dampen the loosened material to an acceptable moisture content, and shall compact this layer in accordance with the applicable requirements of paragraph COMPACTION.

#### 3.15.1.2 Excessive Moisture for Suitable Bond

If the top or contact surfaces of a partial fill section become too wet to permit suitable bond between these surfaces and the additional fill to be placed thereon, the wet material shall be scarified and permitted to dry, assisted by disking or harrowing, if necessary, to such depths as may be directed by the contracting officer. The material shall be dried to an acceptable moisture content, and shall be compacted in accordance with the applicable requirements of paragraph COMPACTION.

#### 3.15.1.3 Drying Wet Materials

Material that is too wet shall be spread on the embankment and permitted to dry or be dried in the borrow area prior to bringing to the levee embankment. The material shall be assisted by disking or harrowing, if necessary, until the moisture content is reduced to an amount within the specified limits.

#### 3.15.1.4 Increasing Moisture in Dry Material

The moisture content of material that is too dry, will be adjusted in the borrow area prior to bringing to the levee embankment. The Contractor will add water to the fill material and by harrowing, or other approved methods, work the moisture into the material until a uniform distribution of moisture within the specified limits is obtained. Water applied on a layer of fill on the levee embankment shall be accurately controlled in amount so that free water will not appear on the surface during or subsequent to rolling. Should too much water be added to any part of the embankment, the rolling on that section of the embankment shall be delayed until the moisture content of the materials is reduced to an amount within the specified limits. If it is impracticable to obtain the specified moisture content by wetting or drying the material on the fill, the Contractor may be required to pre-wet or dry back the material at the source of excavation or in the borrow area.

#### 3.15.2 Select Fill

The moisture content after compaction shall be within the limits of 2 percentage points above optimum to 2 percentage point below optimum moisture content as determined by ASTM D 698.

#### 3.15.3 Uncompacted Fill

Uncompacted fill will be placed at their in-situ water content. The moisture content shall be controlled such that hauling, spreading, and compacting equipment can operate with normal procedure without excessive rutting of the fill.

### 3.16 COMPACTION

#### 3.16.1 Compaction of Select Fill

After a layer of material has been dumped and spread, it shall be harrowed

to break up and blend the fill materials and to obtain uniform moisture distribution. Harrowing shall be performed with a heavy disk plow, or other approved harrow, to the full depth of the layer. If one pass of the harrow does not accomplish the breaking up and blending of the materials, additional passes of the harrow shall be required, but in no case will more than three passes of the harrow on any one layer be required for this purpose. When the moisture content and the condition of the layer are satisfactory, the lift shall be compacted to a minimum of 95 percent of the maximum dry density as determined by the Contractor in accordance with ASTM D 698 with not less than six complete coverages of an approved tamping roller or four complete coverages of an approved 50-ton rubber-tired roller traversing in a direction parallel to the axis of the levee or not less than of eight overlapping passes of an eight ton vibratory roller in 2 perpendicular directions. In areas which are not accessible by roller, the fill shall be placed in layers not more than 4 inches in uncompacted depth and compacted with an approved hand operated compactor to a density equal to that obtained in other areas which are accessible to rollers. Dumping, spreading, sprinkling, and compacting may be performed at the same time at different points along a section when there is sufficient area to permit these operations to proceed simultaneously. Compaction equipment shall be operated such that the strip being traversed by the roller shall overlap the rolled adjacent strip by not less than 3 feet.

#### 3.16.2 Compaction of Uncompacted Fill

No compaction other than that obtained by the controlled movement of the hauling equipment over the area of the fill is required. Equipment shall be routed so as to prevent excessive rutting of the fill surface.

#### 3.16.3 Compaction Adjacent to Structures and Utilities

Heavy equipment for spreading and compacting fill shall not be operated within 4 feet of structures or utilities, except as otherwise specified herein. Material within 4 feet shall be compacted using appropriate hand operated compactors specified herein.

### 3.17 FIELD QUALITY CONTROL

#### 3.17.1 Clearing, Grubbing, and Stripping

See Section 02330 CLEARING AND GRUBBING.

#### 3.17.2 Excavation

The Contractor shall establish and maintain quality control for excavation operations to assure compliance with contract requirements, and maintain records of the Contractor's quality control for all construction operations including but not limited to the following:

- a. Lines, grades and tolerances
- b. Segregation of materials
- c. Disposal and/or stockpiling of materials
- d. Unsatisfactory materials
- e. Conditions that may induce seepage or weaken the foundation or embankment

f. Stability of excavations

Records of inspections and tests, as well as the records of corrective actions taken, shall be furnished to the Government in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

3.17.3 Embankment

3.17.3.1 General

As a part of the Contractor Quality Control (CQC) system required by Section 01451 CONTRACTOR QUALITY CONTROL, the Contractor shall establish and maintain field quality control for foundation preparation, embankment and backfill operations to assure compliance with contract requirements and maintain detailed records of field quality control for all operations including but not limited to the following:

a. Earthwork Equipment: Type, size, number of units and suitability for construction of the prescribed work.

b. Foundation Preparation: Methods of preparing the foundations in advance of embankment and backfill construction and methods for providing drainage of the foundation and partially completed fills.

3.17.3.2 Materials Testing

The Contractor shall perform sufficient testing to insure that the fill is being constructed as specified. The testing program specified below shall be considered the minimum acceptable frequency of testing. This does not relieve the Contractor from the responsibility of performing additional testing, if required to ensure compliance with these specifications.

a. Soil Classification Tests: Soil classification tests shall be performed in accordance with ASTM D 2487. One initial classification test shall be required for each different classification of material to be utilized as embankment fill or backfill. As prescribed in ASTM D 2487, grain size analyses in accordance with ASTM D 422 and Atterberg limits in accordance with ASTM D 4318 shall be performed on each different classification. The Contractor shall submit additional tests for every 10,000 cubic yards of embankment or backfill material. Soil classification tests shall be performed on foundation material as required to determine the acceptability of the in-situ soils. Additional tests will be required if noticeable changes in the material occur.

b. Cohesionless Material Testing:

(1) Compaction Tests: Prior to placing any fill material in the dike, compaction curves shall be established on representative samples of the material obtained from the borrow area. All laboratory tests shall be performed in accordance with applicable sections of ASTM D 1557 and ASTM D 2216. The finer grained soils, with 15 percent or more of the particles by weight passing the No. 200 sieve, shall be controlled by 5-point compaction curves and Atterberg limits. Sandy, free-draining soils with less than 15 percent passing the No. 200 sieve shall be controlled by a 1-point compaction test. A minimum of five 5-point compaction curves shall be developed on samples of the finer grained soils. Another

5-point compaction curve shall be established whenever a different type of material is encountered during fill operations or every fifteen thousand (15,000) cubic yards of fill placed. A minimum of five 5-point compaction tests shall be performed on samples of the sandy, free draining materials. The samples shall be oven dried prior to compacting. The maximum dry density to be used in determining percent compaction of the sandy materials shall be taken as the average of the five 1-point densities.

(2) In-Place Density Tests: Once fill placement commences, field density tests shall be performed on every 5,000 cubic yards of compacted fill placed or a minimum of 2 tests per day. Horizontal locations shall be randomly staggered in the fill. Field density tests shall be performed in accordance with applicable sections of ASTM D 1556. At each location for field density tests within 1 foot of the density hole soil samples shall be obtained for the following identification testing to be performed in a laboratory: 1-point compaction, Atterberg limits (plastic soils), grain size analysis and moisture content. The 1-point compaction test on the finer grained soils shall be used to determine the optimum moisture content and maximum dry weight density from the family of 5-point curves. The 1-point compaction test shall be compacted on the dry side of optimum, within 2 percent of the optimum water content for the material being tested. The sample for the 1-point compaction test for the sandy materials less than 15 percent passing the No. 200 sieve shall be oven dried prior to compacting. The density value obtained from this test shall be averaged with the previous 1-point density values and this average value used as the maximum dry density for computing percent compaction.

c. Verification Testing: A duplicate sample for the first laboratory tests of each type (i.e., compaction, grain size, Atterberg limits) performed on the contract shall be submitted to the Government for verification testing. Thereafter, duplicate samples shall be submitted for 10 percent of the additional construction control tests. Sampling and shipping shall be at the Contractor's expense, and testing will be at the Government's expense. Sample shall be sent to the destination determined by the Contracting Officer.

d. Additional Testing: The Contracting Officer may request additional tests if there is reason to doubt the adequacy of the compaction, or special compaction procedures are being used, or materials change or if the Contracting Officer determines that the Contractor's testing is inadequate or the Contractor is concentrating backfill and fill operations in a relatively small area.

### 3.17.3.3 Materials

Suitability of materials for use in embankment and backfill.

### 3.17.3.4 Fill Placement

Layout, maintaining existing drainage, moisture control, thickness of layers, removal of oversized material, spreading and compaction for embankment and backfill.

### 3.17.3.5 Grade and Cross Section

Surveys to verify that the dimensions, slopes, lines and grades conform to those shown on the drawings shall be the responsibility of the Contractor. All surveys that are to be utilized for payment shall be performed under the direction of a Professional Surveyor registered in the State of Florida. Surveys shall be performed in accordance with EM 1110-1-1000, EM 1110-1-1002, EM 1110-1-1003, EM 1110-1-1004, EM 1110-1-2909, and EM 1110-2-1003. All coordinates shall be in reference to the Florida State Plane Coordinate System East Zone, North American Datum 1983 (1990 Adjustment).

All hard copy survey documents submitted to the County shall be signed and sealed by a Professional Surveyor registered in the State of Florida. All electronic documents submitted to the County shall be in ASCII and AutoCad format. Each drawing shall be a separate DWG file.

#### 3.17.3.6 Testing by the Government

During the life of this contract, the Contracting Officer or its contractors will perform quality assurance tests. The Contractor shall make available to the Contracting Officer or its contractors the equipment to perform these tests.

#### 3.17.3.7 Reporting

The Contractor shall furnish the inspection records and all material testing results, the quantity of fill placed, as well as the records of corrective action taken, in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

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SECTION 02373

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## SECTION 02373

## SEPARATION/FILTRATION GEOTEXTILE (FILTER FABRIC)

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of the 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 3786	(1987) Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Tester Method
ASTM D 4355	(1999) Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
ASTM D 4491	(1999) Water Permeability of Geotextiles by Permittivity
ASTM D 4533	(1991; R 1996) Trapezoid Tearing Strength of Geotextiles
ASTM D 4632	(1991; R 1997) Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(1999) Determining Apparent Opening Size of a Geotextile
ASTM D 4833	(1988; R 1996e1) Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
ASTM D 4873	(1997) Identification, Storage, and Handling of Geosynthetic Rolls

## 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-07 Certificates

Geotextile; G|COR

A minimum of 14 days prior to scheduled use, manufacturer's certificate of compliance stating that the geotextile meets the

requirements of this Section. This submittal shall include copies of manufacturer's quality control test results. For needle punched geotextiles, the manufacturer shall also certify that the geotextile has been continuously inspected using permanent on-line full-width metal detectors and does not contain any needles which could damage other geosynthetic layers. The certificate of compliance shall be attested to by a person having legal authority to bind the geotextile manufacturer.

#### SD-08 Manufacturer's Instructions

##### Manufacturing Quality Control Sampling and Testing; G|COR

A minimum of 14 days prior to scheduled use, manufacturer's quality control manual including instructions for geotextile storage, handling, installation, seaming, and repair.

### 1.3 DELIVERY, STORAGE AND HANDLING

Delivery, storage, and handling of geotextile shall be in accordance with ASTM D 4873.

#### 1.3.1 Delivery

The Contracting Officer will be present during delivery and unloading of the geotextile. Rolls shall be packaged in an opaque, waterproof, protective plastic wrapping. The plastic wrapping shall not be removed until deployment. Geotextile or plastic wrapping damaged during storage or handling shall be repaired or replaced, as directed. Each roll shall be labeled with the manufacturer's name, geotextile type, roll number, roll dimensions (length, width, gross weight), and date manufactured.

#### 1.3.2 Storage

Geotextile rolls shall be protected from becoming saturated. Rolls shall either be elevated off the ground or placed on a sacrificial sheet of plastic. The geotextile rolls shall also be protected from the following: construction equipment, ultraviolet radiation, chemicals, sparks and flames, temperatures in excess of 160 degrees F, and any other environmental condition that may damage the physical properties of the geotextile.

#### 1.3.3 Handling

Geotextile rolls shall be handled and unloaded with load carrying straps, a fork lift with a stinger bar, or an axial bar assembly. Rolls shall not be dragged along the ground, lifted by one end, or dropped to the ground.

## PART 2 PRODUCTS

### 2.1 RAW MATERIALS

#### 2.1.1 Geotextile

Geotextile shall be a nonwoven pervious sheet of polymeric material and shall consist of long-chain synthetic polymers composed of at least 95 percent by weight polyolefins, polyesters, polypropylene, or polyamides. The use of woven slit film geotextiles (i.e., geotextiles made from yarns of a flat, tape-like character) will not be allowed. Stabilizers and/or

inhibitors shall be added to the base polymer, as needed, to make the filaments resistant to deterioration by ultraviolet light, oxidation, and heat exposure. Regrind material, which consists of edge trimmings and other scraps that have never reached the consumer, may be used to produce the geotextile. Post-consumer recycled material may also be used. Geotextile shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other, including the selvages. Geotextiles and factory seams shall meet the requirements specified in Table 1. Where applicable, Table 1 property values represent minimum average roll values (MARV) in the weakest principal direction. Values for AOS represent average roll values. A woven geotextile, meeting the values in Table 1 below, may be used in lieu of specified non-woven geotextile.

TABLE 1. GEOTEXTILE PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TEST VALUE
Apparent Opening Size (U.S. Sieve)	ASTM D 4751	0.425 mm Max 0.35 mm Min
Permittivity, sec-1	ASTM D 4491	0.5
Puncture, lbs.	ASTM D 4833	80
Grab Tensile, lbs.	ASTM D 4632	180
Trapezoidal Tear, lbs.	ASTM D 4533	50
Burst Strength, psi	ASTM D 3786	290
Ultraviolet Stability (percent strength retained at 500 hours)	ASTM D 4355	50

### PART 3 EXECUTION

#### 3.1 INSTALLATION

##### 3.1.1 Subgrade Preparation

The geotextile will be placed on existing materials at the site. The surface underlying the geotextile shall be smooth and free of ruts or protrusions which could damage the geotextile.

##### 3.1.2 Placement

The Contractor shall request the presence of the Contracting Officer during handling and installation. Geotextile rolls which are damaged or contain imperfections shall be repaired or replaced as directed. The geotextile shall be laid flat and smooth so that it is in direct contact with the subgrade. The geotextile shall also be free of tensile stresses, folds, and wrinkles.

### 3.2 SEAMS

#### 3.2.1 Overlap Seams

Geotextile panels shall be continuously overlapped a minimum of 12 inches. The Contractor has the option of field sewing instead of overlapping.

#### 3.2.2 Sewn Seams

If the Contractor elects to perform field sewing, seams shall be continuously sewn. A flat seam with one row of a two-thread chain stitch shall be used unless otherwise recommended by the manufacturer. Thread material shall be selected as recommended by the manufacturer. The minimum distance from the geotextile edge to the stitch line nearest to that edge shall be 3 inches unless otherwise recommended by the manufacturer. The thread at the end of each seam run shall be tied off to prevent unraveling.

Seams shall be on the top side of the geotextile to allow inspection. Skipped stitches or discontinuities shall be sewn with an extra line of stitching with a minimum of 18 inches of overlap.

### 3.3 PROTECTION

The geotextile shall be protected during installation from clogging, tears, and other damage. Damaged geotextile shall be repaired or replaced as directed. Adequate ballast (e.g., sand bags) shall be used to prevent uplift by wind.

### 3.4 REPAIRS

Geotextile damaged during attachment or installation shall be repaired by placing a patch of the same type of geotextile which extends a minimum of 12 inches beyond the edge of the damage or defect. Patches shall be continuously fastened using a sewn seam or other approved method. The machine direction of the patch shall be aligned with the machine direction of the geotextile being repaired. Geotextile which cannot be repaired shall be replaced.

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## SECTION 02380

## STONE 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.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 88	(1999a) Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 127	(2001) Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
ASTM C 136	(2001) Sieve Analysis of Fine and Coarse Aggregates
ASTM C 295	(1998) Guide for Petrographic Examination of Aggregates for Concrete
ASTM C 535	(1996) Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM D 1429	(1995) Specific Gravity of Water and Brine
ASTM D 3370	(1995a) Sampling Water from Closed Conduits
ASTM D 5313	(1992; R 1997) Evaluation of Durability of Rock for Erosion Control Under Wetting and Drying Conditions

FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)

<u>FDOT</u>	<u>(2000) Standard Specifications for Road and Bridge Construction</u>
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## NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

NIST HB 44	(1997) NIST Handbook 44: Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices
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## 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

Armor; G|COR  
Bedding Material; G|COR  
Core Material; G|COR

Submit the source for materials.

Gaging Table Data; G|COR

Submit stone hauling vessel gaging tables.

SD-04 Samples

Stone; G|COR

Submit suitable stone samples prior to delivery of any such material to the worksite.

SD-06 Test Reports

Gradation Test; G|COR

Submit the gradation tests using the GRADATION TEST DATA SHEET appended to the end of this Section for stone.

Bulk Specific Gravity; G|COR

At least 120 calendar days in advance of shipment of stone to the work site, submit a copy of bulk specific gravity test results for each gradation range of stone proposed to be furnished. The information shall be furnished prior to preparation of pre-production demonstration stockpiles.

SD-07 Certificates

Armor Stone; G|COR  
Bedding Stone; G|COR  
Core Material; G|COR

Submit certificates of compliance attesting that the materials meet specification requirements.

Weigh Scale Certification; G|COR

Submit a copy of the certification from the regulation agency attesting to the scale's accuracy.

Certified Weight Scale Tickets; G|COR

Submit a copy of each certified weight scale ticket 1 working day after weighing.

1.3 DESIGN REQUIREMENTS

1.3.1 Factors Used for Converting In-Place Volume to Weights

The following factors were used in converting the in-place volume to the quantities shown in the Bidding Schedule.

STONE MATERIAL	BULK SPECIFIC GRAVITY (SSD)	PERCENT VOIDS	CUBIC YARD OF VOLUME PER TON INCLUDING COMPENSATION FOR VOIDS (For Excess Quantity Calculations)
Bedding	2.08	25	0.74
Type A Armor	2.64	25	0.54
Type B Armor	2.24	25	0.69
Type C Armor	2.24	25	0.69
Core Material	Varies	25	0.75

#### 1.3.1.1 Revision of Bidding Schedule Quantities

The estimated quantities of stone listed in Section 00010 were computed on the basis of stone having a percentage of voids and a bulk specific gravity (saturated surface dry (SSD) basis) as shown in the above table based on water having a unit weight of 62.4 pounds per cubic foot. When the bulk specific gravity (SSD) of the stone to be used in the work is other than that shown in the above table, the estimated quantities will be revised by multiplying them by the fraction which results when the bulk specific gravity (SSD) of the stone furnished is divided by the value shown in the above table for each respective stone gradation. Revision for the percentage of voids will likewise be made. The Contracting Officer will issue a modification to the contract in accordance with the Clause CHANGES of Section 00700 CONTRACT CLAUSES to adjust the estimated quantities in Section 00010. The revised quantities will then be the quantities from which the allowable 15 percent variation in estimated quantity, for payment purposes, will be determined as defined in Clause VARIATIONS IN ESTIMATED QUANTITIES of Section 00700 CONTRACT CLAUSES.

#### 1.4 GOVERNMENT TESTING AND STUDIES

##### 1.4.1 Stone

##### 1.4.1.1 General

All stone shall be durable material as approved by the Contracting Officer. The Contractor shall show that an adequate quantity of material is available from the proposed source. Stone shall be of a suitable quality to ensure permanence in the structure and in the climate in which it is to be used. It shall be free from cracks, blast fractures, bedding, seams and other defects that would tend to increase its deterioration from natural causes. If, by visual examination, it is determined that 10 percent or more of the stone produced contains hairline cracks, then all stone produced by the means and measures which caused the fractures shall be rejected. A hairline crack that is defined as being detrimental shall have a minimum width of 4 mil and shall be continuous for one-third the dimension of at least two sides of the stone. The stone shall be clean and reasonably free from soil, quarry fines, and shall contain no refuse.

##### 1.4.1.2 Sources

Stone may be furnished from any source designated by the Contractor and accepted by the Contracting Officer, subject to the conditions herein stated. Satisfactory stone quality records on other work may be acceptable

provided the tests were conducted within 2 years of the proposed start of stone placement and the stone is to be mined from the same portion of the quarry. Stone quality records shall show testing of the stone that meets the qualities in paragraph EVALUATION TESTING OF STONE below. If no such records are available, the Government will conduct tests to assure the acceptability of the stone.

a. Selection of Source: The Contractor shall designate in writing only one source or one combination of sources from which he proposes to furnish stone. It is the Contractor's responsibility to determine that the stone source or combination of sources selected is capable of providing the quality, quantities and gradation needed and at the rate needed to maintain the scheduled progress of the work. Samples for acceptance testing shall be tested in accordance with paragraph EVALUATION TESTING OF STONE below. If a source for stone so designated by the Contractor is not accepted for use by the Contracting Officer, testing of other sources shall be performed at no additional cost to the Government.

b. Acceptance of Materials: Acceptance of a source of stone is not to be construed as acceptance of all material from that source. The right is reserved to reject materials from certain localized areas, zones, strata, or channels, when such materials are unsuitable for stone as determined by the Contracting Officer. The Contracting Officer also reserves the right to reject individual units of produced specified materials in stockpiles at the quarry, all transfer points, and at the project construction site when such materials are determined to be unsuitable. During the course of the work, the stone may be tested by the Government, if the Contracting Officer determines that testing is necessary. If such tests are determined necessary, the testing will be done in the Government's testing laboratory or commercial laboratory selected by the Government. This additional sampling and testing shall be performed at the Contractor's expense when test results indicate that the materials do not meet specified requirements. When test results indicate that materials meet specified requirements, an equitable adjustment in the contract price will be made for the sampling and testing. Any material rejected shall be removed or disposed of as specified and at the Contractor's expense.

c. Samples: Samples of stone shall be taken by a representative of the quarry under the supervision of the Contracting Officer for testing and acceptance prior to delivery of any stone from each source to the site of the work. Samples shall consist of at least 3 pieces of stone, roughly cubical in shape and 12 inches in the least dimension. Samples shall be taken from each unit that will be used in the production of the required stone. If different sources are proposed for each gradation of stone, samples shall be collected from each source as specified above. The samples shall be shipped at the Contractor's expense to a ~~commercial~~ material testing laboratory within Florida or Georgia designated by the Government at least 65 days before the production stone leaves the quarry. The Contracting Officer shall be notified to arrange for testing at least 75 days before the production stone leaves the quarry.

#### 1.5 CONSTRUCTION TOLERANCES

The finished surface and stone layer thickness shall not deviate from the lines and grades shown by more than the tolerances listed below. Tolerances are measured perpendicular to the indicated neatlines. Extreme

limits of the tolerances given shall not be continuous in any direction for more than five (5) times the nominal stone dimension nor for an area greater than 1000 square feet of the structure surface.

NEATLINE TOLERANCES

MATERIAL	ABOVE NEATLINE inches	BELOW NEATLINE inches
Bedding	6	6
Armor	18	12
Core	6	6

The intention is that the work shall be built generally to the required elevations, slope and grade and that the outer surfaces shall be even and present a neat appearance. Placed material not meeting these limits shall be removed or reworked as directed by the Contracting Officer. Payment will not be made for excess material which the Contracting Officer permits to remain in place.

PART 2 PRODUCTS

2.1 BEDDING STONE

Bedding stone shall be composed of tough, durable particles, adequately free from thin, flat and elongated pieces, and shall contain no organic matter nor soft, friable particles in quantities considered objectionable by the Contracting Officer. All stones shall be roughly angular in shape, with the least dimension of any stone no less than one-third of its greater dimension. All stones shall have density of not less than 130 pounds per cubic foot (saturated, surface dry). Gradation shall conform to the following requirements:

Bedding Stone Gradation

Stone Weight (lbs)	Percent by Weight Less than
20	100
5	40-65
1	0-10

The bedding material shall be well-graded between the limits shown. At least one test shall be performed on each 1,000 tons to be delivered to the project site in accordance with paragraph EVALUATION TESTING OF STONE.

2.2 ARMOR STONE

2.2.1 Type A Armor Stone

Armor stone shall be graded as shown below. Armor stone shall be hard, close grained, free of cracks, seams or other imperfections which might adversely affect its durability when exposed to weathering and wave action of the inlet environment. All stones shall be roughly angular in shape, with the least dimension of any stone no less than one-third of its greater dimension. Flat stones will not be accepted. All stones shall have density of not less than 165 pounds per cubic foot (saturated, surface dry). The inclusion of objectionable quantities of dirt, sand, clay and rock fines will not be permitted.

## Armor Stone Gradation

Stone Weight (tons)	Percent by Weight Passing
3.0	100
2.5	90
2	40-65
1.5	0-10

## 2.2.2 Type B Armor Stone

Armor stone shall be graded as shown below. Armor stone shall be hard, close grained, free of cracks, seams or other imperfections which might adversely affect its durability when exposed to weathering and wave action of the inlet environment. All stones shall be roughly angular in shape, with the least dimension of any stone no less than one-third of its greater dimension. Flat stones will not be accepted. All stones shall have density of not less than 140 pounds per cubic foot (saturated, surface dry). The inclusion of objectionable quantities of dirt, sand, clay and rock fines will not be permitted.

## Armor Stone Gradation

Stone Weight (tons)	Percent by Weight Passing
1.5	100
1.0	90
0.75	40-65
0.6	0-10

## 2.2.3 Type C Armor Stone

Armor stone shall be graded as shown below. Armor stone shall be hard, close grained, free of cracks, seams or other imperfections which might adversely affect its durability when exposed to weathering and wave action of the inlet environment. All stones shall be roughly angular in shape, with the least dimension of any stone no less than one-third of its greater dimension. Flat stones will not be accepted. All stones shall have density of not less than 140 pounds per cubic foot (saturated, surface dry). The inclusion of objectionable quantities of dirt, sand, clay and rock fines will not be permitted.

Armor Stone Gradation

Stone Weight (tons)	Percent by Weight Passing
0.5	100
0.4	90
0.25	40-65
0.2	0-10

2.2.4 Core Material

The stone furnished for core stone shall be free of fines and be well graded (or stone meeting FDOT RBS 530-2.3) with stone diameters ranging in size between 2 inches and 12 inches. All stones shall have a density of not less than 130 pounds per cubic foot (saturated, surface dry).

2.3 EVALUATION TESTING OF STONE

2.3.1 Evaluation Testing of Stone

The tests to which the stone shall be subjected will include unit weight, absorption, sulfate soundness, abrasion, ~~freezing and thawing~~, wetting and drying, and petrographic analysis in order to demonstrate that the stone is of a satisfactory quality. Stone shall meet the following requirements:

STONE ACCEPTANCE CRITERIA

Test	ASTM	STONE TYPE: Armor <u>Type A</u>	Bedding and Core Material Stone
Unit Weight	ASTM C 127	<del>140 pcf</del> or 165 pcf (as indicated in Section 2.2)	130 pcf <u>140 pcf (Type B and C Armor)</u>
Absorption	ASTM C 127	Less than 1 percent loss	Less than <del>8</del> <u>5</u> percent loss
Sulfate Soundness	ASTM C 88 15 cycles <u>for</u> (magnesium sulfate) <u>5 cycles for</u> <u>limestone</u>	Less than 5 percent loss	Less than 12 percent loss
LA Abrasion	ASTM C 535 1000 rev.	Less than <del>20</del> <u>30</u> percent loss	Less than 45 percent loss
Wetting and Drying	ASTM D 5313 30 cycles	Less than 1 percent loss	Less than <del>8</del> <u>12</u> percent loss
Petrography	ASTM C 295	Fresh, interlocking crystalline, no clay minerals, and no soluble minerals <u>(granite)</u> .	

2.3.2 Stone Quality Testing During Construction

The Contractor shall submit on a weekly basis, for all material delivered

during the week, a certification that the material meets all the requirements of the contract specifications. During the course of the work, the stone may be tested by the Government, if the Contracting Officer determines that testing is necessary. If such tests are determined necessary, the testing will be done in the Government's testing laboratory. The Contractor will be required to obtain, under the supervision of the Contracting Officer, samples of at least 5 pieces of armor stone and 100 pounds of bedding, and deliver them at his own expense to the Government approved testing laboratory in the State of Florida. This additional sampling and testing shall be performed at the Contractor's expense when test results indicate that the materials do not meet specified requirements. When test results indicate that materials meet specified requirements, an equitable adjustment in the contract price will be made for the sampling and testing. Any material rejected shall be removed or disposed of at the Contractor's expense. Stone of suitable quality shall be furnished and placed at no additional cost to the Government. All stone will be subject to inspection during loading at the source and at the site of the work prior to placement.

### 2.3.3 Gradation Test

a. The Contractor shall perform a gradation test or tests on each stone gradation at the quarry. The samples shall be taken by the Contractor in the presence of the Contracting Officer. The Contractor shall notify the Contracting Officer not less than 3 days in advance of each test. In the event of unavailability of the Contracting Office, the Contractor shall perform the tests and certify to the Contracting Officer that the stone shipped complies with the specifications. The gradation tests shall be reported using the GRADATION TEST DATA SHEET or ENG FORM 2087, appended to the end of this Section. The sample shall be collected in a random manner which will provide a sample which accurately reflects the actual gradation arriving at the jobsite. Failure of the test on the initial gradation sample and on an additional sample will be considered cause for rejection of the quarry and/or quarry process, and all stone represented by the failed tests shall be set aside and not incorporated into the work. Any additional tests required because of the failure of an initial test sample will not be considered as one of the other required tests. If collected by the truckload, each truckload shall be representative of the gradation requirements.

b. The weight of the individual pieces of armor stone, representing the minimum, maximum and 50 percent greater than sizes for the specified armor stone gradation, shall be printed on each stone and be placed in a location adjacent to the work site in order to provide a basis for visual comparison during placement of the armor stone. These stones shall be used as the last order of work. The Contracting Officer may direct additional testing of the stone at the project site if the stone appears, by visual inspection, to be out of gradation. The additional tests shall be performed on random loads or stockpiled material selected by the Contracting Officer. The Contracting Officer may direct this testing under the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES. The Contractor shall provide all necessary screens, scales and other equipment, and operating personnel, and shall grade the sample. The quantity selected for testing shall be of the more representative appearing material. The minimum sample size and the number of tests required shall be as follows:

<u>Gradation</u>	<u>Minimum Sample Weight</u>	<u>Number of Tests</u>
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Armor Stone	250 tons	2 min.
Bedding Stone	50 tons	1 per 500 tons

#### 2.3.4 Drop Test

A drop test provides an immediate evaluation of the durability of very large armor stone during handling of the stone, including placement into a structure. For comparability, the test stone(s) shall be dropped from a bucket or by other means from a height of not less than half the average diameter of the stone onto a rigid surface or second stone of comparable size. Dumping from a truck is not acceptable. The stone shall be examined carefully before as well as after the completion of the test. Failure criteria is the development of new cracks, opening of old cracks, and the loss of piece from the surface of the stone. Each stone shall be dropped a total of five times for evaluation purposes with examination after each drop. The Contractor shall provide all necessary equipment and operating personnel to help perform the testing.

#### 2.3.5 Stone Stockpile

Storage areas designated on the drawings may be used for stockpiling of stone with approval of the Contracting Officer. If the Contractor elects to provide offsite stockpiling areas, the Contracting Officer shall be notified by the Contractor of all such areas. After being stockpiled, any stone which has become contaminated with soil or refuse shall not be put into the work unless the contaminating material has been removed from the stone prior to placement.

### PART 3 EXECUTION

#### 3.1 BASE PREPARATION

Areas on which geotextile are to be placed shall be inspected by the Contractor prior to placement of any materials. Debris or displaced stones from any existing structure(s) that are within the limits of the geotextile shall be moved prior to placement. Debris shall become the property of the Contractor and shall be removed and disposed of by the Contractor. All materials shall be properly disposed of in accordance with the requirements of Section 01355 ENVIRONMENTAL PROTECTION, including any applicable local requirements. If displaced stone meets the armor stone specifications for any of the types of armor protection, it may be revised.

There will be no measurement and payment for the debris or stone removal and all costs will be considered incidental to the contract.

#### 3.2 LIMITATIONS OF PLACEMENT PROCEDURES

Stone construction in advance of completed permanent protection except as specified herein shall be at the Contractor's risk. The Contractor shall keep the Contracting Officer informed as to any and all situations that may result in a possible interruption of work.

##### 3.2.1 Interruptions

If the Government can anticipate that the stone construction will be interrupted for more than 4 continuous days, including weekends and holidays, the Contractor may be required to complete the placement of armor stone and provide protection of the exposed ends prior to the start of the interruption. The above-required protection for the exposed ends of the

jetty shall consist of the same type of armor stone. All material used for protecting the exposed ends shall be removed after the need therefor has ended and shall be appropriately incorporated into the required permanent construction. All materials which are removed and placed in the permanent construction, in accordance with the provisions of this Section, will be measured and paid for only once. When temporary protection of exposed ends of construction in progress is ordered or directed by the Contracting Officer, an equitable adjustment will be made for the work of temporarily placing and removing the stone materials. The Government has no obligation to order that exposed ends be protected. If the Government takes no action to have exposed ends protected, then the provisions of subparagraph "Material Placement in Advance" below shall apply.

### 3.2.2 Material Placement in Advance

The coastal structures shall not be constructed more than 50 feet in advance of completed placement of the armor stone. In the event an unprotected section of any length unsurveyed is left during a nonwork period or is left unprotected for a period longer than four continuous days and is damaged or causes damage to a completed section, the damaged portion(s) shall be replaced or reshaped as approved by the Contracting Officer at no additional cost to the Government.

### 3.2.3 Placement Control

The Contractor shall be responsible for control of the placement of stone in the dikes, and he shall furnish, operate, and maintain necessary equipment and furnish all necessary material and supplies. At all times when stone placement from floating plant is underway, the means by which the Contractor positions his plant, equipment, and stone supply barges must function accurately and consistently. The Contractor's plant and equipment shall have a dragline or backhoe capable of being mobile on the spud barge and the flexibility to perform stone placement by the drag-off method. The kick-off method for stone placement shall not be used unless approved by the Contracting Officer. Whatever the method employed, it must permit the Contractor and the Government inspector readily to determine the exact position of the stone-placing operation. The Contractor shall not place anchors for the purpose of holding floating plant in place over existing or partially completed stone work.

#### 3.2.3.1 Alignment Control

The method of alignment control shall be either a manned transit or laser or either colored or polarized light beams, or any other method demonstrated to be practicable and sufficiently precise and reliable as approved by the Contracting Officer.

#### 3.2.3.2 Distance Control

The method of distance control for floating plant engaged in the subaqueous placement of stone shall be either wire distance wheel or another equally accurate measuring device as approved by the Contracting Officer.

#### 3.2.3.3 Depth Finder

An electronic recording depth finder, approved by the Contracting Officer, in writing, shall be provided during the construction of the coastal structures. The depth finder shall have a recording scroll not less than 6 inches wide with a scale of not more than 10 feet of depth to the inch.

The depth finder shall be capable of obtaining accurate profiles and cross-sections during construction of the jetty and shall be used to monitor anticipated and actual scour and as an aid in the control of stone placement. The Contractor shall furnish and maintain an adequate stock of recording paper for the depth finder.

#### 3.2.3.4 Nonpermitted Devices

The use of buoys and piles of stone placed above the water surface as placement control devices will not be permitted. The use of bank targets for alignment control will not be permitted for work distances of more than 400 feet without prior approval, in writing, by the Contracting Officer.

#### 3.3 PLACEMENT OF GEOTEXTILE

The geotextile shall be installed to the lines and grades as indicated on the contract drawings. Placement shall begin at the bottom of the area to be covered and continue up slope. Subsequent loads of material shall be placed against previously placed material in such a manner as to ensure a relatively homogenous mass. Placement shall be as specified in Section 02373 SEPARATION/FILTRATION GEOTEXTILE (FILTER FABRIC).

#### 3.4 PLACEMENT OF BEDDING LAYER

Bedding stone shall be spread uniformly on the geotextile to the lines and grades as indicated on the contract drawings and in such manner as to avoid damage to the geotextile. Placement shall begin at the bottom of the area to be covered and continue up slope. Subsequent loads of material shall be placed against previously placed material in such a manner as to ensure a relatively homogenous mass. Placing of bedding stone by methods which tend to segregate the particle sizes within the layer will not be permitted. Any damage to the surface of the geotextile during placement of bedding stone shall be repaired before proceeding with the work. Compaction of bedding material will not be required, but shall be finished to present an adequately even surface, free from mounds or windrows.

#### 3.5 PLACEMENT OF CORE MATERIAL

Core material shall be spread uniformly on the bedding stone to the lines and grades as indicated on the contract drawings. Placement shall begin at the bottom of the area to be covered and continue up slope. Subsequent loads of material shall be placed against previously placed material in such a manner as to ensure a relatively homogenous mass. Any damage to the surface of the bedding stone during placement of core material shall be repaired before proceeding with the work. Compaction of core material will not be required, but shall be finished to present an adequately even surface, free from mounds or windrows.

#### 3.6 PLACEMENT OF ARMOR STONE

Stone shall be placed in the locations and at the thickness shown without deviating from the lines and grade shown, including allowance for tolerances. Final shaping of the slope shall be performed concurrently with the initial placement of the stone. The largest 10 percent of armor stones shall be placed at the toe of breakwater, jetty, groin, and revetment slopes, as indicated graphically in the plans. Remaining stones shall be randomly selected and set in contact with each other so that the interstices between adjacent stones shall be as small as the character of the stone will permit. The face of stone having the largest area shall be

placed against the surface of the underlying material. Placement shall begin at the bottom of the slope. Stones shall be placed in a manner to avoid displacing underlying materials or placing undue impact force on underlying material that would cause the breaking of stones. Unless otherwise specified, stone shall not be dropped from a height greater than two feet. The equipment used in placing the stone shall be suitable for handling materials of the sizes required including the ability to place the stone over its final position before release and if necessary pick up and reposition the stone. Dragline buckets and skips shall not be used in placement. Moving stone by drifting or manipulating down the slope will not be permitted. The finished work shall be a well distributed mass, free of pockets of either smaller or larger stone, having a minimum of voids and with the maximum of interlocking of stones. It should be anticipated that rehandling of individual stones after initial placement will be required to achieve the above requirements.

### 3.6.1 Chinking of Armor Stone

Following placement of the cap stones, the remaining spaces between individual stones shall be filled with pieces of smaller stone obtained from the required stone gradation materials being supplied for this contract. The spaces between cap stones shall be filled with selected stones of the maximum size which will fit in each remaining space. At the elevation of the upper horizontal surface of the cap stones, the stones used for chinking shall be placed with their elongated dimension in a vertical direction and forced into place in the spaces between stones such that they become firmly wedged in place.

### 3.6.2 Slides

In the event of the sliding or failure of any part of the structure during its construction, or after its completion, but prior to its acceptance, the Contractor shall, upon written order of the Contracting Officer, cut out and remove the slide from the structure and then rebuild that portion of the structure with new materials or reuse the displaced materials for rebuilding if deemed appropriate. The Contracting Officer shall determine the nature and cause of the slide. In case the slide is caused through fault of the Contractor, the foregoing operations shall be performed without cost to the Government.

## 3.7 SURVEYS

The Contractor shall establish and maintain quality control for all work performed at the job site under this section to assure compliance with contract requirements. He shall maintain records of his quality control tests, inspections and corrective actions. Quality control measures shall cover all construction operations including, but not limited to, the placement of all materials to the slope and grade lines shown and in accordance with this Section.

### 3.7.1 Check Surveys

Surveys made by the Contractor are required on each material placed for determining that the materials are acceptably placed in the work. The Contractor shall make checks as the work progresses to verify lines, grades and thicknesses established for completed work. At least 1 check survey as specified below shall be made by the Contractor for each 25-foot section as shown as practicable after completion. Following placement of each type of material, the cross section of each step of the work shall be approved by

the Contracting Officer before proceeding with the next step of the work. Approval of cross sections based upon check surveys shall not constitute final acceptance of the work. Cross sections shall be taken by the Contractor on lines 25 feet apart, measured along the structure reference line, with readings at 5-foot intervals and at breaks along the lines. However, other cross section spacing and reading intervals may be used if determined appropriate by the Contracting Officer. Additional elevations and soundings shall be taken as the Contracting Officer may deem necessary or advisable. The surveys shall be conducted in the presence of an authorized representative of the Contracting Officer, unless this requirement is waived by the Contracting Officer.

a. Above Water: The elevation of stone above the water surface shall be determined by the use of a leveling instrument and a rod having a base 12 inches in diameter. If approved by the Contracting Officer other means may also be used.

b. Below Water: For portions of the work that are under water, sounding surveys shall be performed either by means of a sounding pole or a sounding basket weighing about 8-1/2 pounds, each of which has a base measuring 12 inches in diameter.

c. Gage Board: The gage shall be checked prior to any survey. The Contractor shall install a gage board at the project site.

d. Electronic Depth Recorder Method: When using an electronic depth recorder the following procedures shall be used:

(1) The depth recorder shall be calibrated and adjusted for the gage, with check bar, at least 6 times within a normal 8-hour work day.

(2) Normal calibration times shall be at the beginning of the work day, mid-morning, close of morning's work, start of afternoon's work, mid-afternoon, and the end of the day.

(3) Further calibrations shall be performed whenever there is any malfunction within the depth recorder or transducer which might affect the soundings, a major gage change, or change in water temperature due to industrial discharge or other causes.

(4) The check bar shall be set at approximately the deepest sounding in the area to be sounded.

(5) The depth recorder shall be calibrated to read at low water datum.

(6) When checking the calibration at mid-morning, end of morning, mid-afternoon and end of work, the same setting used for the previous calibration shall be used.

(7) If the calibration check does not agree with the previous calibration, the depth recorder shall be calibrated to the proper setting.

(8) Under no circumstances shall the setting of the depth recorder be changed between calibrations.

e. Electronic Depth Recorder: The survey depth recorder used must

be a standard model acceptable to the Contracting Officer using a sounding chart that can be read directly to the nearest foot and estimated to the nearest 0.1 of a foot. Accuracy shall be better than 1/2 of 1 percent.

f. Tagline Method of Horizontal Location Along Station: If a tagline is used with a depth recorder, the soundings shall be marked with a fix every 5 feet.

g. Predetermined Transit Angle Method or Ranges Method: The interval between predetermined angles or ranges along a sounding line shall not exceed 200 feet along the entire length of the sounding line. No predetermined angle shall form an intersection with the sounding line of less than 45 degrees.

h. Speed of the Sounding Boat: When sounding, the speed of the sounding boat shall be as constant as possible, preferably between 180 and 220 feet per minute.

i. Checking Gage: The gage shall be checked prior to each calibration and recorded on the sounding chart or in the field notes.

### 3.8 GRADATION TEST DATA SHEET

See APPENDIX A at the end of this Section (1 page).

-- End of Section --

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DIVISION 02 - SITE WORK

SECTION 02491

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## SECTION 02491

## PIER TIMBERWORK

## 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 the basic designation only.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 123	(2001) Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A 153	(2001) Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A 325	(2002) Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
<u>ASTM D 635</u>	<u>(2002) Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position</u>
<u>ASTM E 84</u>	<u>(2002) Standard Test Method for Surface Burning Characteristics of Building Materials</u>

## AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C2	(1992) Lumber, Timbers, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes
AWPA C18	(1999) Pressure Treated Materials in Marine Construction
AWPA M4	(2001) Care of Preservative-Treated Wood Products
AWPA M6	(1991) Brands Used on Forest Products

## 1.2 SUBMITTALS

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 Clause SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION of Section 00700 CONTRACT CLAUSES they are considered to be "shop drawings."

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

Connectors; G|COR  
Nails; G|COR  
Bolts; G|COR  
Ladders; G|COR  
Structural Timber; G|COR

SD-06 Test Reports

Delivery Inspection List; G|COR

Field inspect and submit a verification list of each treated timber member and each strapped bundle of treated lumber indicating the working and lettering of the quality control markings, the species and the condition of the wood. Do not incorporate materials damaged in transport from plant to site.

Timber Preservative Inspection; G|COR

Submit the inspection report of an independent inspection agency, for approval by the Contracting Officer, that offered products complying with applicable AWPA Standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee.

1.3 DELIVERY AND STORAGE

Open-stack timber and lumber material on skids at least 12 inches above ground, in a manner that will prevent warping and allow shedding of water. Close-stack treated timber and lumber material in a manner that will prevent long timbers or preframed material from sagging or becoming crooked. Keep ground under and within 5 feet of such piles free of weeds, rubbish, and combustible materials. Protect materials from weather. Handle treated timber with ropes or chain slings without dropping, breaking outer fibers, bruising, or penetrating surface with tools. Do not use cant dogs, peaveys, hooks, or pike poles. Protect timber and hardware from damage.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Lumber and Timbers (Solid Sawn)

a. Provide solid sawn lumber and timbers of stress-rated Southern Pine with the following stress ratings:

$F_b = 1,200$  psi (Extreme Fiber Bending/Single Member); (1,450 psi as indicated for observation platform)  
 $F_t = 500$  psi (Tension Parallel to Grain)  
 $F_v = 90$  psi (Horizontal Shear)  
 $E = 1,500,000$  (Modulus of Elasticity)  
(Properties when moisture content exceeds 19 percent)

Materials shall be identified by the grade mark of a recognized association or independent inspection agency using the specific grading requirements of an association recognized as covering the species used. The association or independent inspection agency shall be certified by the Board of Review, American Lumber Standards Committee, to grade the species used.

b. The following are the requirements for timber and lumber:

Joists: No. 2 Rough Sawn  
Stringers: No. 1, S4S  
Decking and Railing: No. 1, S4S  
Cross Bracing: No. 2, Rough Sawn

#### 2.1.2 Preservative Treatment

Fabricate lumber and timbers before preservative treatment. Each piece of treated lumber or timber shall be branded, by the producer, in accordance with AWWA M6. Treat wood to be used in contact with salt water or salt water splash in accordance with AWWA C2 and AWWA C18 with Chromated Copper Arsenate (CCA), with the following retention:

Joists:	0.60 pcf
Stringers:	0.60 pcf
Decking and Railing:	0.40 pcf (see Note below)
Cross Bracing	2.50 pcf

Note: Decking shall be treated with a preservative solution that contains a hydrocarbon wax/oil emulsion water repellent system stabilized with ethoxylated nonylphenol surfactants. The average particle size of the emulsion should range from 350-400 nm and the treated sapwood should contain a minimum of 0.22 (pcf) water repellent solids.

#### 2.1.3 Hardware

Bolts with necessary nuts and washers, timber connectors, drift pins, dowels, nails, screws, spikes and other fastenings.

a. Threaded Rods: Shall be stainless steel (Class 1, 316 alloy) for marine applications. Size(s) indicated on plans.

b. Nails: Shall be stainless steel or bronze ring shank. Size indicated on plans.

c. Connectors: Provide timber connectors as indicated in the contract plans. Connectors shall be 316 stainless steel Simpson or equivalent rated for the criteria provided in the plans. Provide appropriate steel connectors (galvanized in accordance with ASTM A 123) for applicable portions of observation deck hardware where stainless steel is not practical.

d. Bolts: For the observation deck, provide bolts and nuts that conform to ASTM A 325. Hardware shall be hot-dipped galvanized in accordance with ASTM A 153.

#### 2.1.4 Fiberglass Grating ~~IFE Decking~~

~~a. Provide clear all Heart Grade S4S E4E RL 8-18 for the dimensions~~

~~indicated on the plans.~~

~~b. Store material out of direct sunlight to allow for stabilization and acclimation to the installation environment.~~

Grating shall be Duradek Series I-6000 1.5" as manufactured by Strongwell-Chatfield Division (brand name or equal). The bearing bars shall be spaced at 1.5 inches on center. Resin shall be fire retardant vinyl ester meeting the requirements of Class 1 rating of 25 or less per ASTM E 84, and meets the self extinguishing requirements of ASTM D 635. Color shall be gray. Resin shall be UV inhibited, and the composite shall include a veil on all exposed surfaces. Panels shall be assembled into the sizes ordered using a 3-piece pultruded cross rod system. The cross rods shall consist of a center core wedge and 2 spacer bars that are notched at each bearing bar so that each bearing bar is both mechanically locked and bonded to the wedge of each bearing bar. The spacer bars shall be continually bonded to the center core wedge. The cross rods shall be spaced a maximum of 6 inches in the panel. The top of panels shall be covered with a bonded grit anti-skid surface.

#### 2.1.5 Ladders

"Lifting Ladder" type for ladder shall be International Dock Products or equivalent.

##### Source Supplier:

International Dock Products  
3101 SW 25th Street, Bay 100  
Pembroke Park, FL 33009

### PART 3 EXECUTION

#### 3.1 CONSTRUCTION

Cut, bevel, and face timbers prior to plant preservative treatment.

##### 3.1.1 Framing

Cut and frame lumber and timber so that joints will fit over contact surface. Secure timbers and piles in alignment. Open joints are unacceptable. Shimming is not allowed. Bore holes for drift pins and dowels with a bit 1/16-inch less in diameter than the pin or dowel. Bore holes for truss rods or bolts with a bit 1/16-inch larger in diameter than rod or bolt. Bore holes for lag screws in two parts. Make lead hole for shank the same diameter as shank. Make lead hole for the threaded portion approximately two-thirds of the shank diameter. Bore holes in small timbers for boat or wire spikes with a bit of the same diameter or smallest dimension of the spike to prevent splitting. Counterbore for countersinking wherever smooth faces are indicated or specified.

##### 3.1.2 Fastening

Vertical bolts shall have nuts on the lower end. Where bolts are used to fasten timber to timber, timber to concrete, or timber to steel, bolt members together when they are installed and retighten immediately prior to final acceptance of contract. Provide bolts having sufficient additional threading to provide at least 3/8-inch per foot thickness of timber for future retightening.

3.1.3 [Enter Appropriate Subpart Title Here]~~3.1.3 IPE Decking~~

~~Install boards as indicated on plans. Allow 1/16 inch gap between deck boards. Use premium carbide tipped saw blades for smooth cuts. Pre drill a pilot hole and countersink stainless steel screws as fasteners.~~

3.2 FIELD TREATMENT

3.2.1 Timberwork

Field treat cuts, bevels, notches, refacing and abrasions made in the field in treated piles or timbers in accordance with AWPA M4. Trim cuts and abrasions before field treatment.

3.2.2 [Enter Appropriate Subpart Title Here]~~3.2.2 IPE Decking~~

~~Seal ends immediately after cutting using a clear aqueous wax end sealer. Apply a penetrating oil based sealer to boards during installation in accordance with supplier recommendations to allow for natural weathering to a silver gray appearance.~~

3.2.3 Galvanized Surfaces

Repair and recoat zinc coating which has been field or shop cut, burned by welding, abraded, or otherwise damaged to such an extent as to expose the base metal. Thoroughly clean the damaged area by wire brushing and remove traces of welding flux and loose or cracked zinc coating prior to painting.

Paint cleaned area with two coats of zinc oxide-zinc dust paint. Compound paint with a suitable vehicle in a ratio of one part zinc oxide to four parts zinc dust by weight.

-- End of Section --

**APPENDIX A VEGETATION TABLE**

<b>ZONE</b>	<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>	<b>PLANTING AREA/#</b>	<b>MIN. SIZE</b>	<b>TOTAL NUMBER</b>
<b>DUNE/LEVEE</b>	Sea Oats	<i>Uniola paniculata</i>	LV/20,000 RLd/2,700 TPd/800	4"plug	23,500
	Saltmeadow Cordgrass	<i>Spartina patens</i>	LV/20,000 RLd/2,700 TPd/800	2"liner	23,500
Note: LW	Seashore Paspalum	<i>Paspalum vaginatum</i>	LV/20,000 RLd/2,700 TPd/800 LW/7,230	2"liner	30,730
	Seashore Dropseed	<i>Sporobolus virginicus</i>	LV/20,000	2" liner	20,000
	Sea Oxeye	<i>Borrchia frutescens</i>	LV/5,000 TPd/400	4" cone	5,400
	Dune Sunflower	<i>Helianthus debilis</i>	LV/5,000 RLd/1,360 TPd/400	4" cone	6,760
	Railroad Vine	<i>Ipomoea pes-caprae</i>	LV/5,000 RLd/1,360 TPd/400	2" liner	6,760
	Sea Lavender	<i>Limonium Carolinian.</i>	RLd/1,360	18"	1,360
	Beach Morning Glory	<i>Ipomoea imperati</i>	RLd/1,360 TPd/400	18"	1,760
<b>TOTAL DUNE/LEVEE</b>					<b>119,470</b>
<b>PALMS</b>	<b>Cabbage Palm</b>	<i>Sabal palmetto</i>	MH/250 RL/228 TP/80	8'-12'	<b>558</b>
<b>PALMS</b>	<b>Coconut Palm Maypan</b>	<i>Cocos nucifera</i>	RL/63 TP/14	10'-12'	<b>77</b>
<b>10'-12' SPECIES</b>	Sea Grape	<i>Coccoloba uvifera</i>	RL/29	10'-12'	29
	Pigeon Plum	<i>Coccoloba diversifolia</i>	MH/250 RL/9	10'-12'	259
	Green Buttonwood	<i>Conocarpus erectus</i>	RL/16 TP/16	10'- 12'	32
	Gumbo Limbo	<i>Bursea simaruba</i>	MH/250 RL/22	10'-12'	272
	Satin Leaf	<i>Chrysophy. oliviforme</i>	RL/9	10'-12'	9
	Strangler Fig	<i>Ficus aurea</i>	MH/200 RL/3	10'-12'	203
<b>TOTAL 10'-12'</b>					<b>804</b>
<b>8'-10' SPECIES</b>	Sea Grape	<i>Coccoloba uvifera</i>	MH/250 TP/12	8'- 10'	262
	Satin Leaf	<i>Chrysophy. oliviforme</i>	MH/250	8'-10'	250
	Green Buttonwood	<i>Conocarpus erectus</i>	MH/250	8'- 10'	250
	Paradise Tree	<i>Simarouba glauca</i>	MH/200	8'-10'	200
<b>TOTAL 8'-10'</b>					<b>962</b>

<b>6'-8' SPECIES</b>	Mastic	<i>Sideroxylon foetidiss</i>	MH/100	6'-8'	100
	Lancewood	<i>Ocotea coriacea</i>	MH/100	6'-8'	100
<b>TOTAL 6'-8'</b>					<b>200</b>
<b>24"-36" SPECIES</b>	Sea Grape	<i>Coccoloba uvifera</i>	MHs/600 TPs/250	24"-36"	850
	Saw palmetto	<i>Serenoa repens</i>	MH/200 MHs/600 RLs/225 TPs/250	24"-36"	1,275
	Florida Privet	<i>Forestiera segregata</i>	MH/200	24"-36"	200
	White Indigo Berry	<i>Randia aculeate</i>	MH/200	24"-36"	200
	Cocoplum	<i>Chrysoblanus icaco-gr</i>	MH/200 MHs/600 RLs/225 TPs/250	24"-36"	1,275
	Marlberry	<i>Ardisia escalanioides</i>	MH/200	24"-30"	200
	Blolly	<i>Guarpira bicolor</i>	MH/200	24"-36"	200
	Coffee	<i>Psychotria nervosa</i>	MH/200	24"-30"	200
	Myrsine	<i>Myrsine guianensis</i>	MH/200	24"-30"	200
	Firebush	<i>Hamelia patens</i>	MH/200	24"-30"	200
	Spanish Stopper	<i>Eugenia foetida</i>	MH/200	24"-30"	200
	White Stopper	<i>Eugenia axillaries</i>	MH/200	24"-30"	200
	Lantana	<i>Lantana involucrate</i>	RL/225	1g	225
<b>TOTAL 24"-36"</b>					<b>5,425</b>
<b>ESTUARINE</b>	Smooth Cordgrass	<i>Spartina alterniflora</i>	RLe/870 TPe/4,000 LW/15,640	4" plug	<b>20,510</b>
<b>Note:LW</b>					
<b>SOD</b>	Sod	St. Augustine Grass	RL-sod	SY	<b>4,840</b>
<b>Note:LW</b>	Sod	419 Bermuda	LW-sod	SY	<b>21,780</b>

LV = LEVEE  
 MH = MARITIME HAMMOCK  
 TP = TIDAL POND  
 RL = REEF/LAGOON  
 LW = LAKE WORTH WETLAND RESTORATION  
 s = STRAND  
 d = DUNE  
e = ESTUARINE

See Landscape sheets for planting areas and spacing.