SECTION SF-30 BLOCK CONTINUATION SHEET

Replacement of Timber Guide Walls at W.P. Franklin Lock, Structure S-79, Central and Southern Florida Project for Flood Control and Other Purposes, Lee County, Florida

IFB: DACW17-02-B-0007 dated 31 May 2002, Amendment #0001.

SPECIFICATIONS: Specifications for this project have been updated.

a. Asterisks appear before and after the line or lines where revisions have been made to the text on the enclosed revised pages and pertain only to the changes made by this amendment except where the reverse side of a page has been previously amended; however, these can be identified by the amendment number opposite the page number at the bottom of each page.
b. Some specification revisions include additions with underlined text or deletions with line/cross-outs.
c. 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.

1. Section 00010: **Delete** Page 00010-1, and **Insert** new Page 00010-1 (Front of STANDARD FORM 1442).
2. Section 00700: **Delete** Page 00700-12, and **Insert** new Page 00700-12.
3. Section 00800A: **Delete** entire section, and **Insert** new Section 00800A (Wage Determinations).
4. Project Table of Contents: **Delete** entire Project Table of Contents, and **Insert** new Project Table of Contents.
5. Section 01270: **Delete** Page 2, and **Insert** new Page 2.
6. Section 01330: **Delete** entire Appendix A, and **Insert** new Appendix A (Submittal Register).
7. Section 01410: **Delete** Page 13, and **Insert** new Page 13.
8. Section 01411: **Delete** entire section.
9. Section 02457: **Delete** entire section, and **Insert** new Section 02457.
10. Section 06102: **Delete** Pages 1, 2, 7 and 8, and **Insert** new Pages 1, 2, 7 and 8.

DRAWINGS: The following drawing has been revised (see revision block) in this amendment (**Delete** original drawing, and **Insert** new drawing):

1. Drawing 2/4.
2. Drawing 15/1.
3. Drawing 15/2.
4. Drawing 15/3.
5. Drawing 15/4.

SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO. DACW17-02-B-0007	2. TYPE OF SOLICITATION [X] SEALED BID (IFB) [ ] NEGOTIATED *(RFP)*	3. DATE ISSUED 31-May-2002	PAGE OF PAGES 1 OF 118

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

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W32CS513522663	6. PROJECT NO.

7. ISSUED BY CODE DACW17	8. ADDRESS OFFER TO *(If Other Than Item 7)* CODE DACW17
JACKSONVILLE DISTRICT OFFICE U.S. ARMY CORPS OF ENGINEERS P.O. BOX 4970 JACKSONVILLE, FL 32232-0019 TEL: FAX:	BY HAND: DELIVER TO "ISSUED BY" ADDRESS BY MAIL: USAED JACKSONVILLE, PO BOX 4970, ATTN: CESAJ-CT JACKSONVILLE FL 32232-0019 TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALLS)*
	* VICKI V TIPTON *	* 904-232-1146 *

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):*

REPLACEMENT OF TIMBER GUIDE WALLS AT W.P. FRANKLIN LOCK, STRUCTURE S-79, CENTRAL AND SOUTHERN FLORIDA PROJECT FOR FLOOD CONTROL AND OTHER PURPOSES, LEE COUNTY, FLORIDA

DRAWINGS: D.O. FILE #471-38,227, DATED AUGUST 2001, 13 SHEETS PLUS COVER

DESCRIPTION OF WORK: SEE PAGE 00010-3

MAGNITUDE OF CONSTRUCTION IS BETWEEN $1,000,000.00 AND $5,000,000.00

THIS SOLICITATION IS BEING ADVERTISED AS 100% HUBZONE SET-ASIDE. ALL CERTIFIED HUBZONE SMALL 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 FOR INFORMATION.

ALL BIDS MAILED OR HANDCARRIED MUST BE DEPOSITED IN THE BID DEPOSITORY LOCATED IN ROOM 867 PRIOR TO THE TIME SET FOR BID OPENING.

* 11. The Contractor shall begin performance within 30 calendar days and complete it within 270 calendar days after receiving *

[ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. *(See* SECTION 00700 *.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how many calendar days after award in Item 12B.)* [X] YES [ ] NO	12B. CALENDAR DAYS 10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 0 copies to perform the work required are due at the place specified in Item 8 by 14:00:00 *(hour)* local time 7/17/02 *(date)*. If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee [X] is, [ ] is not required.

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

D. Offers providing less than 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

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 debars 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 270 calendar days after * the date the contractor receives the notice to proceed. 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 $1,249.00 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)

General Decision Number FL020032

General Decision Number **FL020032**
Superseded General Decision No. FL010032
State: **Florida**
Construction Type:
HEAVY
County(ies):
BROWARD LEE ST LUCIE
COLLIER MARTIN
DADE PALM BEACH
HEAVY CONSTRUCTION PROJECTS (Excluding Sewer & Water Lines)
Modification Number Publication Date
0 03/01/2002
1 03/29/2002
2 05/10/2002
3 06/07/2002

COUNTY(ies):
BROWARD LEE ST LUCIE
COLLIER MARTIN
DADE PALM BEACH

CARP1026D 01/01/2002

	Rates	Fringes
PILEDRIVERMEN	19.00	5.70

ELEC0323C 09/05/1993

	Rates	Fringes
MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
ELECTRICIANS	15.88	21.5%

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* ELEC0349B 06/01/2002

	Rates	Fringes
DADE COUNTY		
ELECTRICIANS:		
Electrical contracts including materials that are less than $2,000,000	20.50	4.30+8%
Electrical contracts including materials that are $2,000,000 and over	22.96	4.30+8%

ELEC0728A 09/01/2001

	Rates	Fringes
BROWARD AND COLLIER COUNTIES		
ELECTRICIANS	22.96	3%+6.18

ELEC0915B 12/01/2000

	Rates	Fringes
LEE COUNTY		
ELECTRICIANS	20.09	27%+.25

ENGI0487B 10/01/2001

	Rates	Fringes
DADE COUNTY		
POWER EQUIPMENT OPERATORS:		
Backhoes, Bulldozers	18.30	3.40

Cranes	21.88	3.40
Oilers	16.15	3.40

ENGI0487C 07/01/2001

	Rates	Fringes
BROWARD, COLLIER, LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
POWER EQUIPMENT OPERATRORS:		
All Tower Cranes and all Cranes with boom length 150 ft and over	21.64	5.50
Cranes with boom length less than 150 ft, Backhoes, and Bulldozers	20.92	5.50
Oilers	17.69	5.50

PLUM0630A 01/01/2002

	Rates	Fringes
LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
PIPEFITTERS	25.91	5.66

PLUM0725B 01/16/2001

	Rates	Fringes
BROWARD AND DADE COUNTIES		
PIPEFITTERS	23.10	5.90

SUFL2016A 01/26/1990

	Rates	Fringes
CARPENTERS	12.71	2.71
CEMENT MASONS	10.50	
LABORERS	5.72	
POWER EQUIPMENT OPERATORS:		
Loaders	11.25	2.55

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

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

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

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

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

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

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

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

END OF GENERAL DECISION

PROJECT TABLE OF CONTENTS

-- End of Project Table of Contents --

SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.

1.2 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. 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.

1.2.1 Mobilization and Demobilization (Line Item 0001)

1.2.1.1 Payment

Payment will be made for all costs associated with mobilization and demobilization. See clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (FAR 252.236-7004) of Section 00700 CONTACT CLAUSES.

1.2.2 Environmental Protection (Line Item 0002)

1.2.2.1 Payment

Payment will be made for all costs associated with environmental protection~~,~~ and endangered species monitoring~~ and turbidity monitoring~~. See Section 01410 ~~ENVORONMENT~~ ENVIRONMENT PROTECTION~~, and Section 01411 TURBIDITY MONITORING~~.

1.2.3 Demolition (Line Item 0003)

1.2.3.1 Payment

Payment will be made all costs associated with operations necessary for demolition of the four (4) guidewall structures, dismantling and demolition

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION

Replacement of Timber Guide Walls, W.P. Franklin Lock

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	CLASSIFICATION	GOVT OR A/E REVW	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	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 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)
		01000	SD-01 Preconstruction Submittals															
			Contractor-Furnished Equipment	1.11	FIO													
			Letter Appointing Superintendent	1.23.1	FIO													
			Power of Attorney and Certified	1.23.1	FIO													
			Copy of Resolution for local representatives															
			Certificate of Insurance	1.23.1	FIO													
			Affirmative Action Plan	1.23.1	FIO													
			Drug-Free Workplace	1.23.1	FIO													
			List of Subcontractors	1.23.1	FIO													
			Accident Prevention Plan	1.23.1	FIO													
			Critical Lift Plan Operation	1.23.1	FIO													
			Hazard Communication Program	1.23.1	FIO													
			Confined Space Entry Plan	1.23.1	FIO													
			Hurricane and Severe Storm Plan	1.22	FIO													
			Hurricane and Severe Storm Plan	1.23.1	FIO													
			Diving Plan	1.23.1	FIO													
			Quality Control Plan	1.23.1	FIO													
			Manufacturer's Literature for	1.23.1	FIO													
			Equipped Boat, Trailer, and Hand-Held Radios															
			Completed Electronic Submittal Register	1.23.1	FIO													
			Progress Charts	1.23.1	FIO													
			Environmental Protection Plan	1.23.1	FIO													
			Traffic Control Plan	1.23.1	FIO													

SUBMITTAL REGISTER

CONTRACT NO.

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Replacement of Timber Guide Walls, W.P. Franklin Lock

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							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		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)	
		01000	SD-02 Shop Drawings															
			As-Built Shop Drawings	1.7.5	FIO													
			As-Built Contract Drawings	1.7.6	FIO													
			Electronic As-Built Files	1.7.7	FIO													
			Working As-Built Drawings	1.7.1	G EN													
			Construction Drawings	1.8	G COR													
			SD-08 Manufacturer's Instructions															
			Equipment Operating Instructions and Parts Identification	1.10	G COR													
			SD-09 Manufacturer's Field Reports															
			Hurricane and Severe Storm Plan	1.22	G COR													
			Hurricane and Severe Storm Plan	1.23.1	G COR													
		01410	SD-01 Preconstruction Submittals															
			Bird Nesting Monitoring Qualifications		G COR													
			Environmental Protection Plan	1.8	G COR													
			SD-11 Closeout Submittals															
			Project Environmental Summary Sheet	3.10	FIO													
			Logs/Final Summary Report		FIO													
			Logs/Summary of Monitoring		FIO													
			Final Comprehensive Report	3.1.6.4	FIO													
		01780	SD-02 Shop Drawings															
			As-Built Drawings	1.2.1	G EN													
			SD-03 Product Data															

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION: Replacement of Timber Guide Walls, W.P. Franklin Lock

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	CLASSIFICATION	GOVT A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					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	MAILED TO CONTR/ DATE RCD FRM APPR AUTH	
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01780	As-Built Record of Equipment and Materials	1.2.2	G EN													
			Warranty Management	1.3	G EN													
			Final Cleaning	1.5	G COR													
		02220	SD-03 Product Data															
			Work Plan		G COR													
		02457	SD-02 Shop Drawings															
			Installation	3.1	FIO													
			Pile Driving	3.1.2	FIO													
			SD-03 Product Data															
			Pile Driving Equipment	3.2	FIO													
		06100	SD-02 Shop Drawings															
			Nailers and Nailing Strips		G EN													
			SD-07 Certificates															
			Grading and Marking	2.1.1	G EN													
		06102	SD-02 Shop Drawings															
			Wales, splices and walkway supports		G EN													
			SD-03 Product Data															
			Catalog number of each size lumber member		G EN													
			SD-04 Samples															
			Color Schedule	2.5.2	G EN													
			SD-06 Test Reports															
			Delivery Inspection Report		FIO													
			SD-07 Certificates															

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION
Replacement of Timber Guide Walls, W.P. Franklin Lock

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	CLASSIFICATION	GOVT A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					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	MAILED TO CONTR/ DATE RCD FRM APPR AUTH	
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		06102	Structural plastic and fiberglass reinforced plastic (FRP) lumber	1.4.1	G EN													
		16120	SD-03 Product Data															
			Installation Instructions	2.2	G EN													
		16528	SD-02 Shop Drawings															
			Lighting System	1.3.1	G EN													
			Detail Drawings		G EN													
			As-Built Drawings		G EN													
			SD-03 Product Data															
			Equipment and Materials	1.3.5	G EN													
			Spare Parts		G EN													
			Operating Test	3.7.1	G EN													
			SD-10 Operation and Maintenance Data															
			Lighting System	1.3.1	G EN													
		16770	SD-02 Shop Drawings															
			Installation	3.1	G EN													
			SD-06 Test Reports															
			Approved Test Procedures	3.3	G EN													
			Acceptance Tests	3.3	G EN													

The Contractor shall plan his operation and perform all work necessary to minimize adverse impact or violation of the water quality standard. Construction for dewatering, removal of cofferdams, tailwater excavation, and 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 Stream Crossings

Stream crossings shall be controlled during construction. Crossings shall provide movement of materials or equipment which do not violate water pollution control standards of the Federal, State, or local government.

3.1.4.4 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.

3.1.4.5 Turbidity

The Contractor shall conduct his ~~dredging and disposal~~ operations in a manner to minimize turbidity and shall conform to all water quality standards as prescribed by Chapter 62-302, State of Florida, Department of Environmental Protection.

3.1.4.6 Oil Spill Prevention

Prevent oil or other hazardous substances from entering the ground, drainage, or local bodies of water. Provide containment, diversionary structures, or equipment to prevent discharged oil from reaching a watercourse. Take immediate action to contain and clean up any spill of oily substances, petroleum products, and hazardous substances. Immediately report such spills to the Contracting Officer. Provide one or more of the following preventive systems at each oil storage site. The provision of such preventive systems shall be approved by the Contracting Officer prior to tank installation and use.

a. Dikes, berms, or retaining walls shall be capable of containing the contents of the largest single tank.

b. Culverting, curbing, guttering, or other similar structures shall be capable of containing the contents of the largest single tank.

c. Spill diversion ponds shall be capable of containing the contents of the largest single tank.

d. Absorbent materials shall be capable of absorbing the contents of the largest single tank.

3.1.4.7 Oil Storage Tank Installation

All oil storage tank installation shall be constructed so that a secondary

SECTION TABLE OF CONTENTS

DIVISION 02 - SITE WORK

SECTION 02457

ROUND TIMBER PILES

-- End of Section Table of Contents --

SECTION 02457

ROUND TIMBER PILES

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 A 27	(~~1991~~ 1995/2000) Steel Castings, Carbon, for General Applications
ASTM A 48	(~~1994ael~~ 2000) Gray Iron Castings
ASTM A 153	(~~1996~~ 2001a) Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A 307	(~~1997~~ 2000) Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength
ASTM B 370	(1998) Copper Sheet and Strip for Building Construction
ASTM D 25	(~~1991~~ 1999c1) Round Timber Piles

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C1	(~~1997~~ 2000) All Timber products - Preservative Treatment by Pressure Processes
AWPA C3	(~~1997~~ 1999) Piles - Preservative Treatment by Pressure Processes
AWPA M4	(1996) Standard for the Care of Preservative-Treated Wood Products
AWPA P1/P13	(2001) Standard for Creosote Preservative

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-02 Shop Drawings

Installation

Drawings, including shop and erection details, collars, shoes, and splices as required, prior to commencing the work or ordering materials.

Pile Driving

A complete and accurate record of each driven pile within 3 days of completion of driving. The record shall indicate the pile location (as driven), diameter, driven length, embedded length, final elevations of tip and top, collars, shoes, number of splices and locations, blows required for each foot of penetration throughout the entire length of the pile and for the final 6 inches of penetration, and the total driving time. The record shall also include the type and size of the hammer used, the rate of operation, and the type and dimensions of driving helmet and pile cushion used. Any unusual conditions encountered during pile installation shall be recorded and immediately reported to the Contracting Officer.

SD-03 Product Data

Pile Driving Equipment

Descriptions of all pile driving equipment to be employed in the work, prior to commencement of pile installations. This shall include details of the pile hammer, power plant, leads, cushion material, and helmet.

1.4~~3~~ EXPERIENCE

The work shall be performed by a firm specializing in the specified foundation system and having experience installing the specified foundation system under similar subsurface conditions.

1.5~~4~~ SUBSURFACE DATA

Subsurface soil data logs are shown on the drawings.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Pressure Treated Piles

Pressure treated piles shall be Douglas fir or Southern pine, clean-peeled, conforming to ASTM D 25, Class A, except that the minimum tip diameter shall be 8.5 inches instead of that shown in Table X1.1 of the Appendix. Piles shall be in one piece. Splices will not be permitted.

2.1.1.1 Marine Piling

Preservative treatment of piles shall be in accordance with the applicable requirements of AWPA C1 and AWPA C3, for marine piling using creosote preservative; provide minimum net retention of 20 pcf creosote preservative per cubic foot of wood. To minimize the amount of creosote material available to migrate into the environment, the following guidelines (based on Western Wood Preservers Institute Best Management Practices for the Use of Treated Wood in Aquatic Environments) shall be used when treating material for use in marine applications:

a. Treatement Procedures

(1) Treat using preservative specified in AWPA P1/P13, using low xylene new creosote. New material creosote shall have a xylene insoluble (XI) of 0.10 percent maximum.

(2) Follow good housekeeping pracitices to minimize sawdust and other surface residues on the wood products prior to treatment.

(3) The "in use" creosote inventory maintained by the treating firm at the plant for aquatic applications shall be purchased, managed and/or processed such as to maintain a XI of 1.5 percent maximum.

(4) Techniques shall be incorporated into the treating process to minimize the amount of residual creosote that may occur on the surface of the treated product.

(5) The wood shall be conditioned using one of the techniques recommended in AWPA C3.

b. Post Treatment Procedures. Prior to shipment, material shall be processed under one of the following procedures as determined by the producer.

(1) Expansion Bath. Following the pressure period, the creosote should be heated 10 to 20 degrees F above press temperatures for a minimum of one hour. Pump creosote back to storage and apply a minimum vacuum of 24" for a minimum of 2 hours.

(2) Steaming. Following the pressure period, and once the creosote hass been pumped back to the storage tank, a vacuum shall be applied for a miniumum of two hours at no less than 22" of vacuum to recover excess preservative.

Release vacuum back to atomospheric pressure and steam for three hours. Maximum temperature during this process shall not exceed 240 degrees

F. Apply a second vacuum for a minimum of 4 hours at 22" vacuum.

c. Maximum Chemical Loading. Treating shall be conducted to seek to minimize the amount of chemical placed into the wood while assuring conformance with AWPA retention and penetration requirements.

d. Visual Inspection. The creosote product shall be inspected visually to ensure that there are no excessive residual materials or preservative deposits. If the material does not appear clean and dry, it shall be rejected. Once on site and prior to installation, the materials should be visually inspected in accordance with the above directions. Materials that have developed areas of "bleeding" or do not meet the criteria of a clean and dry appearance shall be rejected. Good housekeeping is essential to avoid surface deposits and keep the product clean until shipment and installation.

2.1.2 Pile Shoes

All piles shall be equipped with pile shoes, steel boot or welded plate point shoes especially fabricated for pile driving. ~~Pile shoes shall be welded plate point shoes manufactured from steel conforming to ASTM A 569/A 569M. Welding procedures shall be in accordance with a nationally recognized welding code.~~ Shoes shall be the product of a manufacturer regularly engaged in the manufacture of pile fittings. Provide size to fit pile tip. Fabricate welded-plate point type of four 3/16-inch or 1/4-inch steel plates, fully welded and sized to adequately cover full pointed area of pile; provide each plate with one 3/16-inch or one 1/4-inch diameter nail hole. Point-type shoes shall conform to the requirements of Table I. The length of the joints formed by the intersection of the sides shall not be less than one half of the height of the shoe and shall be fully welded.

TABLE I

POINT-TYPE STEEL SHOE FOR TIMBER PILE

		Dimensions (inches)			
Size	Pile Tip Diameter	Height	Width	Joint Length	Thickness
A	5 to 10	9.0	9.5	4.5	3/16
B	8 to 12	11.0	11.0	5.5	3/16
C	11 to 15	13.0	13.5	6.5	3/16

1. Dimensions shall be within 5 percent of values shown.

2.1.3 Pile Caps

2.1.3.1 Copper

ASTM B 370, 20 ounces per square foot.

2.1.~~5~~4 Hardware

Hot-dip galvanize hardware in accordance with ASTM A 153, unless otherwise noted on the contract drawings.

2.1.~~5~~4.1 Bolts, Threaded Rod, and Nuts

ASTM A 307, Grade A. Provide other metal fastenings of type and size shown.

2.1.~~5~~4.2 Steel Castings

ASTM A 27 or ASTM A 48.

2.2 INSPECTION FOR PRESERVATIVE TREATMENT

The Contractor shall notify the Contracting Officer not less than 2 weeks prior to the start of preservative treatment, stating the place where treatment will be done. Arrangements for access and facilities in this regard shall be made by the Contractor. In lieu of the inspection specified above, the Contracting Officer may elect to accept manufacturer's certificates stating that marine piling conforms to the requirements of AWPA C3.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Handling

Each pile shall be fitted on the tip with a metal shoe, as described later in this section. Piles shall be inspected in the leads, and where the protective shell or treated wood is impaired, between cutoff and a point which will be not less than 10 feet below the ground; the piles shall be repaired in accordance with AWPA M4, unless the pile is damaged to such extent that it is rejected. Pile shall be laterally supported during driving, but shall not be unduly restrained from rotation in the leads. Where pile orientation is essential, the orientation shall be maintained during driving. Battered piles shall be supported to prevent excess bending stresses in the pile. When necessary, collars shall be placed around the pile head to prevent brooming. Cant hooks shall not be used in handling treated piles. Cutting of piles shall be with pneumatic tools, sawing, or other means approved by the Contracting Officer. Holes for bolts shall be sized to ensure a driving fit. Where indicated, holes shall be counterbored for the bolt heads and washers.

3.1.2 Pile Driving

Piles shall be driven without interruption to the required tip elevation indicated shown on the drawings. Diesel powered hammers shall not be used. Sufficient pressure shall be maintained at the hammer so that for double-acting hammer, the number of blows per minute during and at the completion of driving of a pile is equal approximately to that at which the hammer is rated for single-acting hammer, there is a full upward stroke of the ram for differential-type hammer, there is a slight rise of the hammer base during each upward stroke. The pile cushion or capblock shall be replaced whenever it becomes damaged, split, highly compressed, charred or

burned, or has become spongy or deteriorated in any manner. The use of small wood blocks, wood chips, rope, or other material permitting excessive loss of hammer energy will not be permitted. The use of swinging leads is not permitted.

3.1.3 Tolerances in Driving

Piles shall be driven with a variation of not more than 1/4 inch per foot of pile length from the vertical for plumb piles or more than 1/2 inch per foot of pile length from the required angle for batter piles. Butts shall be within 4 inches of the location indicated. Manipulation of piles to force them into position will not be permitted. All piles shall be checked by the Contractor for heave. Piles found to have heaved shall be redriven to the required tip elevation. Piles damaged, mislocated, or driven out of alignment shall be replaced or additional piles driven as directed.

3.1.4 Jetting

Jetting of piles may be used when permitted by the Contracting Officer. Jetting shall be discontinued when the pile tip is approximately 2 feet above the required pile tip elevation and the final 2 feet of penetration shall be made by driving. Before commencing with the driving of the final 2 feet, the pile shall be firmly seated in place by the application of a number of reduced energy hammer blows.

3.1.5 Surface Treatment

After piles have been driven and cut off, all cut, bored, and dapped surfaces shall be treated as specified in AWPA M4.

3.1.6 Pile Heads

After cutoff, apply three coats of hot creosote oil. Then cover with a coat of hot tar over which shall be placed a sheet of copper. The cover shall measure at least four inches more in each dimension than the diameter of the pile and shall be bent down over the pile and the edges fastened with large head copper nails.

3.1.7 Fastening

Use washers of the size and type specified under bolt heads and nuts which would otherwise come in contact with wood. Bolt members together when they are installed and retighten immediately prior to final acceptance of contract.

3.2 PILE DRIVING EQUIPMENT

3.2.1 Pile Hammers

The hammer furnished shall have a capacity at least equal to the hammer manufacturer's recommendation for the total weight of pile and character of subsurface material to be encountered. For piles of any length, the maximum driving energy of the hammer shall be 20,000 foot-pounds.

3.2.2 Driving Helmets and Pile Cushions

A driving helmet or cap, including a pile cushion or cap block, shall be used between the top of the pile and the ram to prevent impact damage to the pile. The driving helmet, or cap and pile cushion combination, shall be capable of protecting the head of the pile, minimizing energy absorption, and transmitting hammer energy uniformly and consistently during the entire driving period. The driving helmet or cap shall fit snugly on the top of the pile so that the energy transmitted to the pile is uniformly distributed over the entire surface of the pile head. During the test-pile period, the Contractor shall demonstrate to the Contracting Officer that the equipment to be used on the project performs the above functions. The pile cushion may be a solid or laminated softwood block with the grain parallel to the pile axis and enclosed in a close-fitting steel housing. The thickness of block shall be suitable for the length of pile to be driven and the character of subsurface material to be encountered. Generally, thicker blocks are required for longer piles and softer subsurface material.

3.2.3 Capblocks

The capblock used between the driving cap and the hammer ram may be of solid hardwood block with grain parallel to the pile axis and enclosed in a close fitting steel housing or may consist of aluminum and approved industrial type plastic laminate discs stacked alternately in a steel housing. Steel plates shall be used at the top and the bottom of the capblock. Where the block is other than that specified above, the Contractor shall submit to the Contracting Officer, at least 2 weeks before the start of test pile driving operations, detailed drawings of the proposed capblock accompanied by records of its successful use. If a wood capblock is used, it shall not be replaced during the final driving of any pile. The use of small wood blocks, wood chips, rope, or other material permitting excessive loss of hammer energy will not be permitted.

-- End of Section --

SECTION TABLE OF CONTENTS

DIVISION 06 - WOODS & PLASTICS

SECTION 06102

PLASTIC LUMBER

a. Walkway supports: Black

b. Decking: Gray or beachwood, with a non-skid texture acceptable to the Contracting Officer. Must match color of guardrails.

c. Guardrails: Gray or beachwood. Must match color of decking.

2.5.2.2 Exterior Fiberglass Reinforced Plastic Lumber for Wales and Miscellaneous Structural Supports

a. Fiberglass reinforced plastic members: Black with smooth finish.

PART 3 EXECUTION

3.1 FIELD TREATMENT

3.1.1 Plastic Work

Field treat cuts, bevels, notches, refacing and abrasions made in the field in accordance with the manufacturer's recommendations.

3.2 FIELD QUALITY CONTROL

3.2.1 Inspections

When Government inspections result in product rejection, the Contractor shall promptly segregate and remove rejected material from the premises.

3.2.1.1 Straightness

Each member shall be measured for straightness prior to installation. The line shall lie entirely within the body of the lumber. Lumber not meeting this criteria shall be rejected.

3.2.1.2 Cracks

Each member shall be inspected for cracks prior to installation. Prior to final completion and acceptance of construction, each member shall again be inspected for cracks. Cracking of the lumber shall be cause for rejection. The Contractor shall be responsible for all costs incurred to replace the rejected plastic members.

3.2.1.3 Voids

Each truckload of fiberglass reinforced plastic lumber delivered to the job site shall be inspected for void content. The contractor shall cut two (2) full-length wales in equal halves for inspecton by the owner's representative. The maximum length of any void shall not exceed 1 inch across the section of any cut. The maximum area of voids greater than 0.25 inch in any section shall not exceed 5 percent. If any of the four (4) pieces inspected exceed these void limitation requirements, the entire truckload of fiberglass reinforced plastic lumber will be rejected. The contractor shall be resposible for all costs incurred to replace the

rejected fiberglass reinforced plastic lumber.

3.3 MANUFACTURER'S WARRANTY

In addition to the Manufacturer's standard one-year warranty, the Manufacturer shall warranty all structural plastic and fiberglass reinforced plastic lumber to be free from defects in materials and workmanship for a period of ten years. The Manufacturer shall cover all construction costs related to the repair or replacement of the defective elements.

This warranty need not cover repairs required as a result of normal wear and tear, misuse, mishandling, extreme weather or "force majeur", failure to perform routine maintenance, non-recommended or improperly executed alterations by anyone other than the Manufacturer, tampering, loading of the member beyond its rated capacity, improper installation, or other use inconsistent with Manufacturer's specifications.

3.4 CONTRACTOR'S WARRANTY

The Contractor shall warranty all structural plastic and fiberglass reinforced plastic lumber to be free from defects in materials caused by mishandling prior to installation and improper installation for a period of ten years. The Contractor shall cover all construction costs related to the repair or replacement of the defective lumber.

This warranty need not cover repairs required as a result of normal wear and tear, misuse, mishandling, extreme weather or "force majeur", failure to perform routine maintenance, non-recommended or improperly executed alterations by anyone other than the Contractor, tampering, loading of the member beyond its rated capacity, or other use inconsistent with Manufacturer's specifications.

-- End of Section --