

A0003522

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE	PAGE OF PAGES 1   21
2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 08/20/93	4. REQUISITION/PURCHASE REQ. NO. ED0000-3117-0034	5. PROJECT NO. (If applicable) dk	
6. ISSUED BY US ARMY ENGR DIST NEW ORLEANS PO BOX 60267 NEW ORLEANS LA 70160-0267  Molly M. Block	CODE ISSUE1	7. ADMINISTERED BY (If other than Item 6) US ARMY ENGR DIST, NEW ORLEANS ATTN CELMN-CT PO BOX 60267 NEW ORLEANS LA 70160-0267		
		CODE	ADMIN1	
		SC2 (504)862-2879		

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO. DACW29-93-B-0080
	<input type="checkbox"/>	9B. DATED (SEE ITEM 11) 07/29/93
	<input type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO.
	<input type="checkbox"/>	10B. DATED (SEE ITEM 13)
CODE OMR68	FACILITY CODE	

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

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  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.**

<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
<input type="checkbox"/>	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.)

Plans and Specifications covering Lake Pontchartrain, La. and Vicinity, High Level Plan, London Ave. Outfall Canal Parallel Protection, Pumping Station No. 3 to Mirabeau Ave. Floodwall, Orleans Parish, La., are hereby amended as follows:

**BID OPENING DATE**

Bid Opening Date and Time of 1 September 1993, 2:00p.m., LOCAL TIME AT PLACE OF BID OPENING, remains unchanged.

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	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)	

**BID SCHEDULE**

Delete pages B-1, B-2, and B-3 in their entirety and substitute the revised attached pages B-1, B-2, and B-3 therefor. Double asterisk in margin denotes change.

**SECTION C**

(1) Pages C2C-4 and C2C-5. Delete paragraphs C2C-3.1, C2C-3.1.1, C2C-3.1.2, C2C-3.2, and C2C-3.3 in their entirety.

(2) Pages C2C-5 and C2C-6. Change paragraph numbers "C2C-3.4, C2C-3.4.1, C2C-3.4.2, C2C-3.4.3, and C2C-3.4.4" to "C2C-3.1, C2C-3.1.1, C2C-3.1.2, C2C-3.1.3, and C2C-3.1.4" respectively.

(3) Page C2E-5. Delete this page in its entirety, and substitute the attached pages C2E-5 and C2E-5a therefor.

(4) Page C2G-4, paragraphs C2G-8.1.1.1 and C2G-8.1.1.2. In both tables, change "9±10%" to "9±15%".

(5) Page C2G-8, paragraph C2G-11.1. In the 1st line, change "each PZ-22" to "each PZ-22 or PSA 23".

(6) Page C2G-9, paragraph C2G-11.1. In the last line, change "for payment" to "for payment by the square foot".

(7) Page C2L-2, paragraph C2L-3.4. Add the following reference and reference title.

"STD 112-84                      PCI Committee On Prestressed Concrete Piling,  
Standard Prestressed Concrete Piles"

(8) Add new Section C2M, pages C2M-a, C2M-1, C2M-2, C2M-3, C2M-4, and C2M-5.

(9) Page C3A-3, paragraph C3A-6.1.1. In the 5th line, after "Grade B Concrete Form;" add "Class I;".

(10) Page C3A-4. Add the following new paragraph C3A-6.1.4 after paragraph C3A-6.1.3.

"C3A-6.1.4 Bas-Relief Architectural Finish. This class of finish shall apply to the locations shown on the drawings. The finish shall be achieved by the use of approved form liners manufactured using Government furnished molds. Liner panels shall be secured in the forms by methods recommended by the manufacturer and in such a manner that impressions of nail heads, screw heads, washers, staples, or similar fasteners will not be imparted to the concrete.

(11) Page C3A-5, paragraph C3A-10.1. Delete this paragraph in its entirety and substitute "C3A-10.1 Reserved." therefor.

(12) Delete page C3D-4 and C3D-5 in their entirety, and substitute the attached pages C3D-4, C3D-5 and C3D-5a therefor.

(13) Page C3D-15, paragraph C3D-7.5.2.2. Add the following before the last sentence: "Test cylinders for the 4000 psi concrete shall be tested at 7, 10 and 14 days."

(14) Page C3D-24, paragraph C3D-12.2.1. Under "Structure or Portion of Structure", change "All surfaces of concrete floodwalls" to "The top and both sides of the exposed floodwall surface to 6 inches below final grade".

(15) Page C3D-31. Add the following new paragraph C3D-15.2.6.3 after paragraph C3D-15.2.6.2.

"C3D-15.2.6.3 Compressive Strength. A minimum of six companion compression test specimen shall be prepared by the Contractor in accordance with ASTM C 31 each time 4000 psi concrete is placed, these cylinders shall be protected and cured in accordance with paragraphs 9.1 and 9.3 of ASTM C 31 to determine when the concrete may be put into service. The Contractor shall test these cylinder in accordance with ASTM C 39 and furnish these results to the Contracting Officer. Two cylinders shall be tested at 7 days for acceptance. If test results are below 4000 psi, the two remaining pair shall be tested at later ages."

#### SECTION H

(1) Page H-2, paragraph H-3e. Under "Drawing No.", change "R13" to "R17".

(2) Page H-39. Add the following new subparagraph H-34.h after subparagraph H-34.g.

"The Contractor shall coordinate with the Orleans Levee District for taking delivery of Government furnished property listed in the Special Clause entitled "SCHEDULE OF GOVERNMENT FURNISHED PROPERTY. The Contractor shall notify Mr. Stevan Spencer, Orleans Levee District, Administrative Building, Suite 202, Lakefront Airport, New Orleans, LA 70124, (504) 243-4049.

(3) Add the attached new pages H-41 and H-42 after page H-40.

DRAWINGS

File No. H-4-40145. Delete Dwgs. 1 and 26 of 58 in their entirety and substitute the attached revised Dwgs. 1 and 26 of 58, and new Dwg. 26A of 58 therefor. Make the pen and ink changes as described below.

(1) Dwg. 8 of 58.

a. PLAN. Change the following WB/L or EB/L stations. "2+29.67 WB/L" to "2+33.32 WB/L", "2+62.77 WB/L" to "2+62.03 WB/L", "1+20.82 EB/L" to "1+19.79 EB/L", and "1+46.19 EB/L" to "1+46.88 EB/L".

b. Table of "WALL ALIGNMENT OFFSETS". Change the following WB/L, EB/L, or OFFSETS respectively.

old WB/L	New WB/L ;	old OFFSET	new OFFSET
"2+29.67"	to "2+33.32" ;	"-9.64"	to "-9.55"
"2+62.77"	to "2+62.03" ;	"1.86"	to "1.58"

old EB/L	New EB/L ;	old OFFSET	new OFFSET
"1+20.82"	to "1+19.79" ;	"-25.93"	to "-22.29"
"1+46.19"	to "1+46.88" ;	"2.22"	to "2.67"

c. Table of "EXISTING FACILITIES", "NOTES". Delete "ABANDON STA. 0+64.0 TO 11+72.30 EB/L". Replace with "ABANDON STA. 0+64.0 TO 6+36 EB/L ; REMOVE STA. 6+36 TO 11+72.30 EB/L".

(2) Dwg. 9 of 58.

a. Table of "WALL ALIGNMENT OFFSETS". Change the OFFSET of "4.82" to "4.49".

b. Table of "EXISTING FACILITIES". Under "DISPOSITION" for "ITEM W-2", change "APBGC" to "RMBGC".

(3) Dwg. 12 of 58. Table of "WALL ALIGNMENT OFFSETS". Change the OFFSET of "1.61" to "1.20", and "6.49" to "6.17".

(4) Dwg. 16 of 58, WEST PROFILE - CANAL SIDE. Change "1+63.22 WB/L" to "1+62.51 WB/L".

(5) Dwg. 19 of 58, STA. 1+23.85 TO 1+46.18 EB/L. Change "1+23.85" to "1+19.79". In NOTE 8, add "5+86.67 and 6+16 and" after the word "between". Add the following as NOTE #9.

"9. SAFETY FENCE FOLLOWS LIMITS OF CONSTRUCTION SERVITUDE AND RIGHTS OF WAY. SEE CONSTRUCTION SERVITUDE AND RIGHTS OF WAY DWGS. 3 THRU 7 OF 58."

(6) Dwg. 20 of 58, NOTE 2. Add ", AND 9" after "7,".

(7) Dwg. 21A of 58. In NOTE #2, add "17+95.82 and 18+05.79, 20+70.67 AND 21+00, AND" after "STATIONS". In NOTE 4, change "AND 7," to "7, AND 9,". Sections "STA. 21+00.0 TO STA. 34+40 WB/L" and "STA. 35+00.0 TO STA. 69+05.67 WB/L", add the following note: "EROSION CONTROL IS NOT REQUIRED BETWEEN STA. 28+10 AND 47+25".

(8) Dwg. 31 of 58.

a. PLAN - SWING GATE MONOLITH WEST SIDE. Change "STA. 1+63.22 WB/L START C/L SHEET PILING" to ""STA. 1+62.51 WB/L START WALL LINE". Change "2.55" dimensioned from the baseline to the centerline of the sheet piling to "4.22" dimensioned from the baseline to the wall line.

b. PLAN - SWING GATE MONOLITH EAST SIDE. Change "STA. 0+82.87 EB/L START C/L SHEET PILING" to ""STA. 0+82.34 EB/L START WALL LINE". Change "7.42" dimensioned from the baseline to the centerline of the sheet piling to "6.73" dimensioned from the baseline to the wall line.

(9) Dwg. R10 of R17. Add "STATION 0+00 IS 80 FEET WEST OF THE BRIDGE ABUTMENT." to the end of the NOTE.

(10) Dwg. R11 of R17. Add "STATION 0+00 IS 25 FEET WEST OF THE RAMP TOE." to the end of the NOTE.

SOLICITATION NO. DACW29-93-B-0080

BIDDING SCHEDULE  
 (To be attached to Bid Form)  
 LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY, HIGH LEVEL PLAN  
 LONDON AVE. OUTFALL CANAL, PARALLEL PROTECTION,  
 PUMP STATION NO. 3 TO MIRABEAU AVE. FLOODWALL,  
 ORLEANS PARISH, LOUISIANA

Item No.	Description	Estimated Quantity	Unit	Unit Price	Est. Amt.
0001.	Mobilization and Demobilization	Lump Sum	LS		
0002.	Clearing and Grubbing	Lump Sum	LS		
0003.	Selective Demolition	Lump Sum	LS		
0004.	Pedestrian Bridge Demolition	Lump Sum	LS		
0005.	Embankment, Semicompacted Fill	Lump Sum	LS		
0006.	Structural Excavation and Backfill	Lump Sum	LS		
0007.	Fertilizing and Seeding	Lump Sum	LS		
0008.	Temporary Falsework for Gates	Lump Sum	LS		
0009.	Piling, Steel Sheet, Type PZ-22	273,650	SF		
** 0010.	Piling, Steel Sheet, Type PSA-23	1,110	SF		
0011.	Furnish and Delivering Prestressed Concrete Piles	2,020	LF		
0012.	Driving Prestressed Concrete Piles	2,020	LF		
0013.	Reinforced Concrete Floodwalls	Lump Sum	LS		
0014.	Utility Modifications	Lump Sum	LS		
0015.	Temporary Relocation Of Feeder Lines	Lump Sum	LS		
0016.	Permanent Relocation Of Feeder Lines	Lump Sum	LS		

SOLICITATION NO. DACW29-93-B-0080

BIDDING SCHEDULE  
 (To be attached to Bid Form)  
 LAKE PONTCHARTRAIN, LOUISIANA AND VICINITY, HIGH LEVEL PLAN  
 LONDON AVE. OUTFALL CANAL, PARALLEL PROTECTION,  
 PUMP STATION NO. 3 TO MIRABEAU AVE. FLOODWALL,  
 ORLEANS PARISH, LOUISIANA

Item No.	Description	Estimated Quantity	Unit	Unit Price	Est. Amt.
0017.	Structural Steel Gates, and Miscellaneous Metals	Lump Sum	LS		
0018.	Painting	Lump Sum	LS		
0019.	Railroad Insurance	Lump Sum	LS		
0020.	Temporary Flood Protection And Cofferdams	Lump Sum	LS		
0021.	State Required Performance Bond	Lump Sum	LS		
0022.	Erosion Control				
0022AA.	First 13,900	13,900	LF		
0022AB.	All Over 13,900	1,450	LF		
TOTAL			\$		

Award will be made as a whole to one bidder.

NOTE: Bidders shall furnish unit prices for all items listed on schedule of bid items which require unit prices. If the bidder fails to insert a unit price in the appropriate blank for required items but does furnish an extended total or an estimated amount for such items, the Government will deem his unit price to be the quotient obtained by dividing the extended estimated amount for that line item by the quantity. IF THE BIDDER OMITTS BOTH THE UNIT PRICE AND THE EXTENDED ESTIMATED AMOUNT FOR ANY REQUIRED ITEM, HIS BID WILL BE DECLARED NON-RESPONSIVE. The quantities shown on Bid \*\*Item 0022AB are for evaluation purposes. Payment for these items will be made on the basis of actual quantities used.

**VARIATIONS IN ESTIMATED QUANTITIES - SUBDIVIDED ITEMS. EFARS**  
**12.402(100)--JUL 89.** The Variations in Estimated Quantities clause  
**\*\*is applicable only to Item No. 0022.**

a. Variation from the estimated quantity in the actual work performed under any second or subsequent sub-item or elimination of all work under such a second or subsequent sub-item will not be the basis for an adjustment in contract unit price.

**\*\*b.** Where the actual quantity of work performed for Item Nos. 0022AB is less than 85% of the quantity of the first sub-item listed under such items, the Contractor will be paid at the contract unit price for that sub-item for the actual quantity of work performed and, in addition, an equitable adjustment in contract price shall be made in accordance with the clause FAR 52.212-11, "Variations in Estimated Quantities".

**\*\*c.** If the quantity of work performed under Item No. 0022AB exceeds 115% or is less than 85% of the total estimated quantity of the sub-items under that item, and/or if the quantity of work performed under the second sub-item or any subsequent sub-item under Items Nos. NONE exceeds 115% or is less than 85% of the estimated quantity of any such sub-item, and if such variation causes an increase or a decrease in the time required for performance of this contract the contract completion time will be adjusted in accordance with the clause FAR 52.212-11, "Variations in Estimated Quantities".



shown on the Soil Boring Legend) as gravels (GW, GP, GM) and sands (SW, SP, SM) shall not be used unless suitably blended with less pervious material to the extent that it no longer classifies as these materials.

**C2E-5.2 Unsuitable Materials.** Materials which are classified as unsuitable for embankment or fill or backfill material are defined as masses of organic matter, sticks, branches, roots, and other debris.

**C2E-5.3 Frozen Materials.** Under no circumstances shall frozen earth, snow, or ice be placed in an embankment. The Contracting Officer may require the wasting of frozen material in order that construction may proceed, and such material wasted, if directed by written order of the Contracting Officer, will be paid as specified in C2C-9.2.

**C2E-6. EMBANKMENT CONSTRUCTION.**

**C2E-6.1 Semicompacted Fill.**

**C2E-6.1.1 General.** Semicompacted fill shall not be placed in water. The materials for semicompacted fill shall be placed or spread in layers, the first layer not more than 6 inches in thickness and the succeeding layers not more than 12 inches in thickness prior to compaction. Layers shall 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. When the surface of any compacted layer is too smooth to bond properly with the succeeding layer, it shall be adequately scarified before the next layer is placed thereon.

**C2E-6.1.2 Moisture Control.**

**C2E-6.1.2.1 Existing Levee Material.** The existing levee material shall be placed in the embankment at its natural moisture content.

**C2E-6.1.2.2 Borrow Area Material.** The Contractor shall control the moisture content of the borrow material placed in the embankment. Material placed in the fill shall have a moisture content ranging between the following limits:

<u>Type of Material</u>	<u>Moisture Content (In percent dry weight)</u>	
	<u>Maximum</u>	<u>Minimum</u>
ML	26	15
CL	28	18
CH	37	20

NOTE: SEE UNIFIED SOIL CLASSIFICATION CHART FOR EXPLANATION OF SYMBOLS AND PLASTICITY CHART FOR CLASSIFICATION DETERMINATION, BOTH CONTAINED IN THE CONTRACT DRAWINGS. THE PERCENTAGES USED ABOVE APPLY TO THE GOVERNMENT-FURNISHED BORROW PIT. IF THE CONTRACTOR ELECTS TO USE AN ALTERNATE PIT, NEW PERCENTAGES WILL BE PROVIDED BY THE CONTRACTING OFFICER.

The Contractor shall perform the necessary work in moisture control to bring the borrow material within the moisture content ranges specified above. If the borrow material is too wet, it shall either be stockpiled and allowed to drain before it is placed in the embankment cross section or the wet material shall be processed by disking and harrowing, until the moisture content is reduced sufficiently. If the borrow material is too dry, it shall either be prewet in the borrow area, or sufficient moisture shall be uniformly distributed in each layer before compacting. The Contractor shall perform a minimum of one moisture content test per work shift in which semicompacted fill from the borrow area has been placed within the design section. The Contractor shall perform Atterberg limit tests on three separate soil samples taken from each borrow area at locations determined by the Contracting Officer. No additional payment will be made for any moisture control or moisture control testing required in this subparagraph.

C2E-6.1.3 Compaction. When the conditions of the spread layers are satisfactory, each layer shall be compacted by any of the following methods at the option of the Contractor:

(1) Tamper-Type Roller. Four complete passes over each layer will be required. If tamping rollers are used in tandem, not more than two rows will be permitted, and in such case, one trip of tandem rollers over any surface will be considered as two passes. When tamping rollers are used in tandem, the tamper foot spacing shall be offset so that the circumferential rows on the rear drums are in line with the midpoint of the circumferential rows of the forward drums. Each pass of the tamping roller shall overlap the preceding or adjacent pass by not less than 1.0 foot.

(2) Rubber-Tired Roller. Two complete passes over each layer will be required.

INDEX

SECTION C2M - TREES AND SHRUBS

Para No.	Paragraph Title	Page No.
C2M-1.	SCOPE	C2M-1
C2M-2.	QUALITY CONTROL	C2M-1
C2M-3.	GENERAL	C2M-1
C2M-4.	REMOVAL OF TREES AND SHRUBS	C2M-2
C2M-5.	PRUNING	C2M-3
C2M-6.	TRANSPORTING	C2M-3
C2M-7.	PLANTING MATERIALS	C2M-3
C2M-8.	PLANTING	C2M-3
C2M-9.	TREE MAINTENANCE	C2M-4
C2M-10.	MEASUREMENT AND PAYMENT	C2M-4

SECTION C2M - TREES AND SHRUBS  
PART 1 - GENERAL

C2M-1. SCOPE. The work covered by this section consists of furnishing all plant, labor, equipment, and materials and performing all operations for removing, relocating and replacing trees and shrubs in the vicinity of the house on the northeast corner of Gentilly Blvd. and London Ave. Outfall Canal.

C2M-2. QUALITY CONTROL. The Contractor shall establish and maintain quality control for relocating and replacing trees and shrubs to assure compliance with contract requirements, and maintain records of his quality control for all related operations including but not limited to the following:

- (1) Tree Removal. Method of removal; ball size; wrapping; location, number, and type of tree removed.
- (2) Pruning. Method; percentage of buds removed.
- (3) Transporting. Method.
- (4) Planting Material. Soil mixture; mulch; fertilizer.
- (5) Planting Tree. Excavating pit; grade and alignment; backfilling; guying; and watering.
- (6) Tree Maintenance. Fertilizing; watering; weeding; cultivating; control of insects, fungus and other diseases.

C2M-3. GENERAL. The work to be performed under this section shall be done in accordance with industry standards as generally prescribed by the American Association of Nurserymen and Associated Landscape Contractors of America and shall be under the direct supervision and direction of a licensed arborist in the State of Louisiana.

C2M-3.1 Location. The trees and shrubs to be replaced are in the vicinity of house on the northeast corner of Gentilly Blvd. and London Ave. Outfall Canal. The trees and shrubs that are removed shall be either relocated or replaced with new trees and shrubs in accordance with C2M-3.2, C2M-3.3, and C2M-3.4.

C2M-3.2 Quality of New Trees and Shrubs. Any new trees and shrubs shall be sound, healthy, vigorous and free from plant diseases and insects, pests or their eggs, and shall have normal, healthy root systems. All measurements such as spread, ball size, quality designations, etc., shall be in accordance with the latest edition of "American Standards for Nursery Stock". Trees shall be

calipered twelve (12) inches above the ground. Trees planted in rows shall be uniform in size and shape. All trees shall be approved by the Contracting Officer.

**C2M-3.3 Existing Trees and Shrubs.** Trees and shrubs located on the levee in the vicinity of the house on the northeast corner of Gentilly Blvd. and London Ave. Outfall Canal shall be removed and temporarily planted in the ground at a site in the vicinity prior to construction in accordance with C2M-4. After construction, trees and shrubs shall be removed from their temporary "holding area" and replanted in their original location. Trees or shrubs that die as a result of Contractor operations shall be replaced with trees or shrubs of the same type and size at no expense to the Government.

**C2M-3.4 Time of Planting and Relocation.** All trees and shrubs shall be relocated between December 15 and March 15. Should the Contractor elect to relocate trees and shrubs at any other time, he is required to make arrangements satisfactory to the Contracting Officer. All trees and shrubs to be temporarily relocated shall be replanted the same day they are removed. Insofar as is practicable, any new trees and shrubs to be planted adjacent to the completed new wall shall be planted on the day of delivery. In the event this is not possible, the Contractor shall protect these trees and shrubs from sun or drying winds. Trees and shrubs that cannot be planted immediately on delivery shall be kept in the shade, well watered and protected. New trees and shrubs shall not remain unplanted for longer than three days after delivery.

**C2M-4. REMOVAL OF TREES AND SHRUBS.**

**C2M-4.1 General.** Removal of trees and shrubs that are to be replanted shall be either by hand digging or by the use of a mechanical device especially designed to remove a ball of proper size.

**C2M-4.2 Ball Dimensions.** The depth and diameter of balls dug shall be in proportion to the tree size according to the following table.

<u>Tree Caliper</u>	<u>Ball Diameter</u>
1" to 4"	12" per 1" of caliper
4.1" to 12"	10" per 1" of caliper
12.1" to 24"	8" per 1" of caliper

For all relocated trees and shrubs the ball depth shall be a minimum of 1/2 the ball diameter.

**C2M-4.3 Wrapping and Support of Ball.** The tree root balls shall be wrapped with burlap between the earth ball and the ball supporting device to hold the ball rigid.

C2M-5. PRUNING. The trees and shrubs that are to be replanted shall be pruned prior to their movement to facilitate transportation. Final pruning shall be done after trees and shrubs are planted to bring out their best form and to remove and treat broken branches.

C2M-6. TRANSPORTING. The Contractor shall employ equipment of a size capable to lift and move trees for planting without damage to the trees. Tree trunks shall be protected in such a way that slings used to lift trees will not cut into or damage bark in any way.

## PART 2 - PRODUCTS

### C2M-7. PLANTING MATERIALS.

C2M-7.1 Topsoil Mixture. The material which is used for tamping around the balls and roots of all trees and shrubs shall be three parts spillway sand and one part peat moss (Canadian Sphagnum, German Sphagnum, or California Hypnum).

C2M-7.2 Mulch. Coarse bagasse or shredded cypress bark for tree planting mulch shall be approved by the Contracting Officer.

C2M-7.3 Fertilizer for Trees and Shrubs. Fertilizer shall be commercial balanced formula (13-13-13) with at least 25% organic material and shall conform to applicable State fertilizer laws. It shall be a slow release formula with the name "Osmocote" or equal, as approved by the Contracting Officer and shall be used as specified by the manufacturer. Fertilizer shall be delivered mixed as specified, in standard size, unopened containers, showing weight, analysis, and name of manufacturer and certification.

C2M-7.4 Root Stimulant. Root stimulant shall be any commercially available brand to be approved by the Contracting Officer.

C2M-7.5 Water. The water used shall be free of injurious quantities of oil, acid, alkali, salt, and other substances harmful to the growth of trees and shrubs.

## PART 3 - EXECUTION

### C2M-8. PLANTING.

C2M-8.1 Planting Hole. The Contractor shall dig the planting hole about 12" wider and only 4" to 6" deeper than the root ball. Trees dug with a tree spade shall not be planted in a hole dug by a tree spade. Soil dug from the planting hole may be placed in the hole resulting from tree removal or shall be disposed of by the Contractor.

**C2M-8.2 Root Stimulant/Fertilizing.** A commercial root stimulant shall be mixed according to manufacturers' recommendations and applied to the bottom and sides of the planting hole immediately prior to the planting of the tree. Fertilizer as specified in C2M-7.3 shall be placed at the rate of one pound of fertilizer per one-inch of tree caliper. This fertilizer shall be placed on a one foot wide strip on the inside edge of the soil ring around the tree.

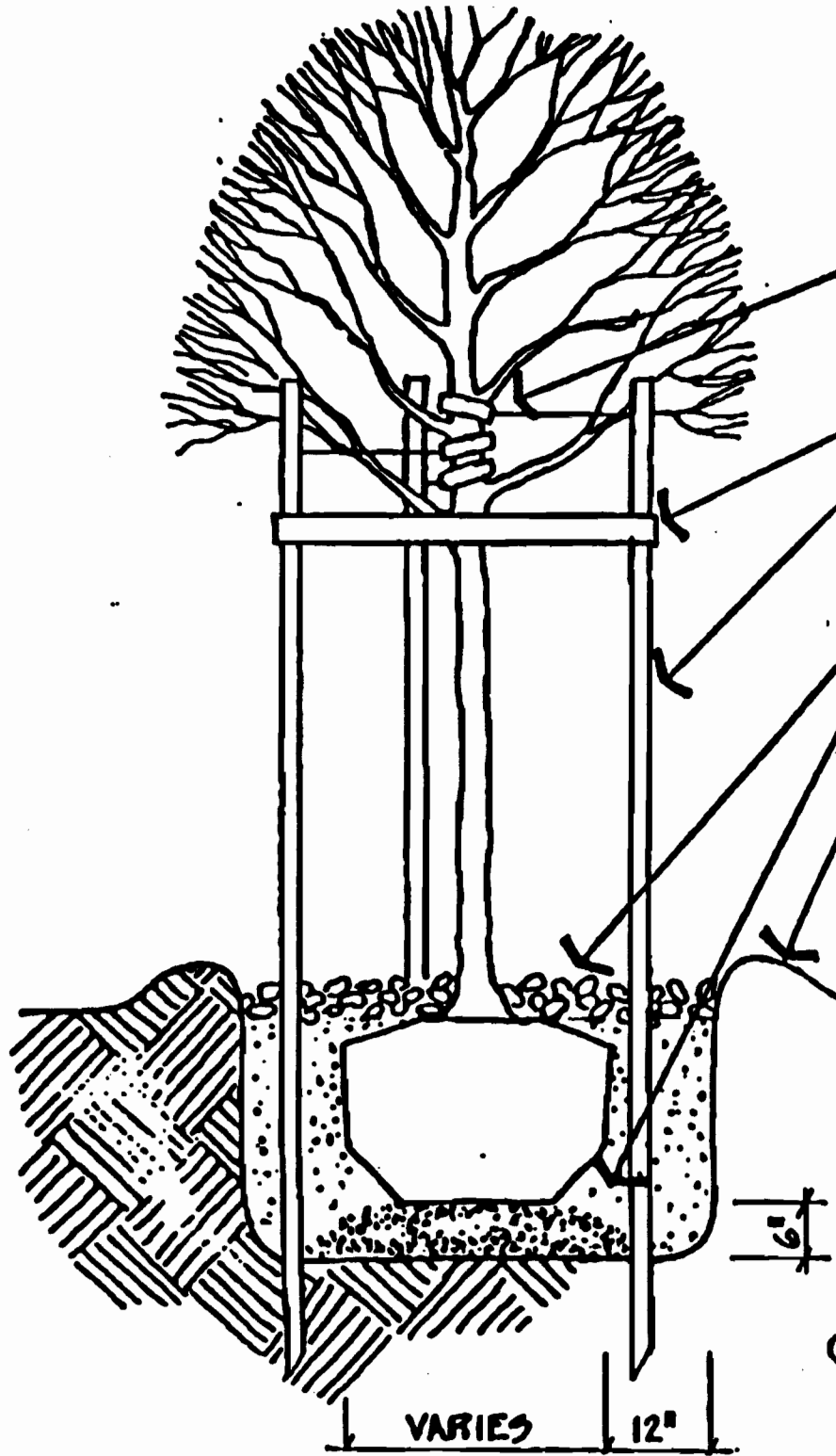
**C2M-8.3 Alignment.** The trees and shrubs shall be set to proper alignment and grade so that when settled they bear the same relationship to the finished grade as they did before transplanting.

**C2M-8.4 Backfilling.** After trees and shrubs are properly set, the hole shall be backfilled gradually with topsoil mixture while tamping and watering thoroughly to avoid leaving air pockets and to adequately support the tree. The top three or four inches of backfill, including one inch over the top of the root ball, shall be left loose as an earth mulch. No fill is permitted around the tree trunk or stem. No tamping shall be done after watering. The Contractor shall form a ring of soil around the tree outside of the tree hole of sufficient size to hold an 8" depth of water, and mulch the ringed area immediately with three to four inches of bagasse or approved shredded Cypress bark. The ring shall be refilled with water at least once a week for the next 4 weeks and again when the complete plant food fertilizer is applied. Excavated material from the planting hole may be used to construct the ring around the tree.

**C2M-8.5 Guying.** Immediately after planting, the trees shall be supported by guying and staking as shown in details at the end of this section.

**C2M-9. TREE AND SHRUB MAINTENANCE.** The relocated and newly planted trees and shrubs shall be watered after final fertilizing at two week intervals for the duration of the contract period. The watering shall consist of refilling the soil ring with an 8" depth of water. For any period when the trees and shrubs receive 2-inches or more of rain fall in a two week period, the Contracting Officer may suspend watering operations for that period.

**C2M-10. MEASUREMENT AND PAYMENT.** No separate measurement or payment will be made for removal, relocating and planting trees and shrubs. Payment for the satisfactory removal, relocation, and planting of trees and shrubs as specified herein will be distributed amongst the existing bid items. Trees and shrubs that die as a result of contractor operations shall be replaced as specified herein at no additional cost to the Government.



REINFORCED 2-PLY RUBBER HOSE COLLAR  
 12" MIN. BLACK COLOR W/ DBL. 12 GA.  
 GALV. WIRE ENCASED - 1 PER STAKE

2x2" BRACE NAILED TO STAKES (3)

2x2" TREATED PINE STAKE - 3 PER TREE  
 MIN. HGT. 5/8 OF HGT. OF TREE  
 MIN. 3' IN GROUND.

CYPRESS BARK MULCH 3" DEPTH

PLANTING SOIL MIX - COMPACTED  
 BENEATH TREE BALL

EARTH SAUCER - 4" MIN. HGT.

NOTE:  
 PLANT AT PREVIOUSLY GROWN DEPTH.  
 LOOSEN BURLAP AT TOP OF BALL,  
 LEAVE REMAINDER OF BURLAP BALL  
 INTACT.

## Tree Planting Detail

Section N.T.S.

GUYING DETAILS FOR RELOCATED TREES



**C3D-3. QUALITY ASSURANCE.**

**C3D-3.1 Preconstruction Sampling and Testing.**

**C3D-3.1.1 Aggregates.** The aggregate sources listed in the Special Clause entitled "Aggregate Sources" have been determined to be capable of producing materials of a quality acceptable for this project. Proposed materials produced from similar strata, or of similar quality as those originally tested, will be approved. If the Contractor proposes to furnish aggregates from a source not listed in the Special Clause entitled "Aggregate Sources", samples consisting of not less than 500 pounds of each size coarse aggregate and 300 pounds of fine aggregate taken under the supervision of the Contracting Officer in accordance with CRD-C 100 shall be delivered to the Waterways Experiment Station (3909 Halls Ferry Road) in Vicksburg, MS within 15 days after notice to proceed. Sampling and shipment of samples shall be at the Contractor's expense. From 90 to 120 days will be required to complete evaluation of the aggregates. Testing by and at the expense of the Government will be in accordance with applicable CRD or ASTM test methods. Tests to which aggregate may be subjected are specific gravity, absorption, cycles of freezing and thawing in concrete, alkali-aggregate reaction, organic impurities, and any other test necessary to demonstrate that the aggregate is of a quality that is at least equivalent to those sources listed in the Special Clause entitled "Aggregate Sources".

**C3D-3.1.2 Cementitious Materials, Admixtures, Curing Compound.** At least 60 days in advance of concrete placement, the Contractor shall notify the Contracting Officer of the source of materials, along with sampling location, brand name, type, and quantity to be used in the manufacture and/or curing of the concrete.

**C3D-3.1.2.1 Air-Entraining Admixture** or other chemical admixtures that have been in storage at the project site for longer than 6 months or that have been subjected to freezing will be retested at the expense of the Contractor when directed by the Contracting Officer and will be rejected if test results indicate non-compliance with C3D-6.3.

**C3D-3.2 Construction Testing By Government.**

**C3D-3.2.1 Three Thousand psi and Twenty-Five Hundred psi Concrete.** The Government may sample and test aggregates and concrete to determine compliance with the specifications. The Contractor shall provide facilities and labor as may be necessary to assist the Government in procurement of representative test

samples. Samples of aggregates will be obtained at the point of batching in accordance with ASTM D 75. Concrete will be sampled in accordance with ASTM C 172. When cylinders are molded, slump and air content will be determined in accordance with ASTM C 143 and ASTM C 231, respectively. Test samples for each class of concrete will be taken at least once every 8-hour shift or for every 150 cubic yards placed, whichever requires more samples. From each sample, three compression test specimens will be made in accordance with ASTM C 31. Compression test specimens will be protected and cured while in the field in accordance with paragraphs 9.1 and 9.2 of ASTM C 31. If cylinders are not delivered to the testing laboratory within 24 to 48 hours, they will be submerged in a water tank provided by the Contractor, where the surrounding water temperature is maintained by the Contractor at  $73.4 \pm 3^{\circ}\text{F}$ . Cylinders will be transported with cushioning material and in accordance with ASTM C 31. Compression testing will be performed in accordance with ASTM C 39. One cylinder will be tested at 7 days for information and two will be tested at 28 days (90 if pozzolan used) for acceptance.

C3D-3.2.2 Four Thousand psi Concrete will be sampled and tested for acceptance in accordance with C3D-15.2.6.3.

#### C3D-4. EVALUATION AND ACCEPTANCE.

C3D-4.1 Concrete Strength. The strength of the 3000 and 2500 psi concrete will be considered satisfactory so long as the averages of all sets of three consecutive test results equals or exceeds the specified compressive strength,  $f'_c$ , and no individual test (average of two companion cylinders) result falls below  $f'_c$  by more than 500 pounds per square inch. The 4000 psi concrete shall not be put into service until test results indicate that the specified compressive strength has been attained. Additional analysis or testing may be required at the Contractor's expense when the strength of the concrete in the structure is considered potentially deficient.

C3D-4.1.1 Investigation of Low-Strength Test Results. When any individual strength test of standard-cured companion test cylinders falls below  $f'_c$  by more than 500 pounds per square inch or if tests of field-cured cylinders indicate deficiencies in protection and curing, steps shall be taken to assure that the load-carrying capacity of the structure is not jeopardized. Nondestructive testing in accordance with ASTM C 597, C 803, or C 805 may be permitted by the Contracting Officer to determine the relative strengths at various locations in the structure as an aid in evaluating concrete strength in place or for selecting areas to be cored. Such tests, unless properly calibrated and correlated with other test data, shall not be used as a basis for acceptance or rejection.

**C3D-4.1.2 Testing of Cores.** When the strength of concrete in place is considered potentially deficient, cores shall be obtained and tested in accordance with ASTM C 42. At least three representative cores shall be taken from each member or area of concrete in place that is considered potentially deficient. The location of cores will be determined by the Contracting Officer to least impair the strength of the structure. If the concrete in the structure will be dry under service conditions, the cores shall be air dried (temperature 60 to 80 degrees F, relative humidity less than 60 percent) for 7 days before testing and shall be tested dry. If the concrete in the structure will be more than superficially wet under service conditions, the cores shall be tested after moisture conditioning in accordance with ASTM C 42. Concrete in the area represented by the core testing will be

**H-37 IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY (FAR 52.245-3 1984 APR).**

a. The Government will furnish to the Contractor the property identification in the Schedule to be incorporated or installed into the work or used in performing the contract. The listed property will be furnished f.o.b. railroad cars at the place specified in the contract Schedule or f.o.b. truck at the project site. The Contractor is required to accept delivery, pay any demurrage or detention charges, and unload and transport the property to the job site at its own expense. When the property is delivered, the Contractor shall verify its quantity and condition and acknowledge receipt in writing to the Contracting Officer within 24 hours of delivery any damage to or shortage of the property as received. All such property shall be installed or incorporated into the work at the expense of the Contractor, unless otherwise indicated in this contract.

b. Each item of property to be furnished under this clause shall be identified in the Schedule by quantity, item, and description.

**H-38 SCHEDULE OF GOVERNMENT FURNISHED PROPERTY.**

a. In lieu of the second and third sentences of paragraph a of the Special Clause entitled "IDENTIFICATION OF GOVERNMENT FURNISHED PROPERTY", the property listed below will be furnished to the Contractor at the Orleans Levee District (OLD) Warehouse located at 6920 Franklin Avenue New Orleans, LA. The Government will furnish to the Contractor the property identified in the schedule below.

**PROPERTY SCHEDULE**

<u>Items</u>	<u>Quantity</u>
Precast Fiberglass Negative Mold of Bas-Relief Architectural Type Finish	3

The Contractor shall incorporate the negative molds of bas-relief architectural type finish to cast positive molds from which he shall make necessary form liners to be used for the I-wall monoliths and mock-up panel. The Contractor is encouraged to visit the property location to obtain more information about the property. Visits of this type shall be coordinated with the New Orleans Area Office. Underestimating the effort required to make the positive molds and form liners using the Government-furnished negative molds, acceptable for use in this contract, shall not constitute the basis for any claim against the Government for money or time extension under the terms of this contract.

b. The Contractor shall notify the Contracting Officer five (5) days prior to proceeding to load and transport the Government-furnished property. The Contractor shall provide suitable equipment to load/unload the property at the warehouse. The Contractor shall then transport the property to the job site and unload.

c. The Contractor shall verify the quantity and condition of the property, and acknowledge receipt in writing to the Contracting Officer. In case of damage to the property, the Contractor shall report such damage to the Contracting Officer immediately. The damaged property shall be replaced by the Contractor at no cost to the Government.

d. Upon completion of the construction of the I-wall monoliths and the mock-up panel, the Contractor shall return all Government-furnished property to the OLD warehouse.