

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF	PAGES
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2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
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6. ISSUED BY CODE	7. ADMINISTERED BY (If other than Item 6) CODE
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 11)
CODE		FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

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 _____ 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 your 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 ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	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.)

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 (Signature of person authorized to sign)	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED

1. The specifications and drawings for Invitation No. DACW64-03-B-0010, Dredging, Mile 293 to High Island in Jefferson, Chambers, and Galveston Counties, Texas, Gulf Intracoastal Waterway, Texas, advertised 14 March 2003, and for which bids are scheduled to be opened on 15 April 2003, are hereby modified as follows:

(a) Specifications.

(1) BIDDING SCHEDULE, Pages 00010-1 Through 00010-4. - The enclosed Bidding Schedule, Pages 00010-1 through 00010-4 supersedes that issued with this Invitation.

(2) Page 01100-6, Paragraph 16. - At the end of this Paragraph, add the following new Paragraph:

"17 FUEL PRICE ADJUSTMENT (CESWG).

(a) For the purpose of this provision, the term fuel cost per contract unit means that part of the total price per unit that is attributable solely to the cost of fuel.

(b) The fuel cost per contract unit for Bid Item 0004 is estimated to be \$0.57 per cubic yard. The cost is based on a price of fuel of \$1.03 per gallon for No. 2 diesel fuel, which includes all applicable taxes.

(c) If at any time after award, there is an increase or decrease in the fuel price established, by the Department of Energy, Energy Information Center - www.eia.doe.gov, for No. 2 diesel fuel, the unit price of Bid Item 0004 will be adjusted by 70 percent of any increase or decrease in excess of 10 percent of the applicable fuel cost set forth in (b) above. Fuel price adjustments will be calculated for each calendar month and will be based upon the price applicable for the period the work is performed. Fuel price adjustments will be paid whenever the Contractor requests a progress payment, (but not before the data becomes available for the period that work is performed) and when final payment is made.

(d) Upward fuel price adjustment will not be made beyond the period specified in the Contractor performance of the work, plus any approved extension of time. Downward adjustments will be made at any time in accordance with Item (c) above, if the fuel price decreases."

(3) SECTION 02222, REMOVAL OF EXISTING DROP-OUTLET STRUCTURES. - The enclosed new SECTION 02222 entitled REMOVAL OF EXISTING DROP-OUTLET STRUCTURES shall be added to and become part of this Invitation.

(4) SECTION 02223, REMOVAL OF EXISTING BRIDGE PIER STRUCTURES. - The enclosed new SECTION 02223 entitled REMOVAL OF EXISTING BRIDGE PIER STRUCTURES shall be added to and become part of this Invitation.

(5) SECTION 02312, EXCAVATION, FILLING, AND BACKFILLING FOR DROP-OUTLET STRUCTURES. - The enclosed new SECTION 023122 entitled EXCAVATION, FILLING, AND BACKFILLING FOR DROP-OUTLET STRUCTURES shall be added to and become part of this Invitation.

(6) Page 02319-1, Subparagraph 1.4.1. - Delete this Subparagraph and substitute the following:

"1.4.1 Stripping and the cost in connection therewith will be included in the contract lump sum price for "Levees, Drop-outlets, and Ditches-P.A. Nos, 8, 11, 13, 17, 20, 23, 24, and 26" under Schedule No. 1, "Levees, Drop-outlets, and Ditches - P.A. Nos. 4 and 6" under Option No. 1 or "Levees, Drop-outlets, and Ditches - P.A. Nos. 4 and 6" under Option No. 2."

(7) Page 02482-3, Subparagraph 1.7.2. - At the end of this Subparagraph, insert the following new Subparagraph:

"1.7.3 Pipelines. The contract lump sum price for "Pipelines" shall include the cost to place, remove, and handle shore pipelines to and at the Placement Areas or approved discharge corridors as shown, for procurement of materials, and for construction of ramps or installation of culvert pipes which may be necessary in connection with placing the shore pipelines."

(8) Page 02482-10, Subparagraph 3.4.2.11. - Delete the second sentence and substitute the following: "The Contractor shall utilize material from Sections Nos. 1 and 2 and shall start discharge operations in the northeast corner of the Placement Area to fill the old and new borrow ditches not to exceed an elevation of +2.0 feet above the existing ground elevation."

(9) Page 02482-10, Subparagraph 3.4.2.13. - At the end of this Subparagraph, add the following sentence: "The Contractor shall control the discharge through the use of spreaders, spoons or other devices which reduce erosion of placed materials due to high flow velocities that occur with concentrated discharge."

(10) SECTION 02700 DROP-OUTLET STRUCTURES. - The enclosed new SECTION 02700 entitled DROP-OUTLET STRUCTURES supersedes that issued with this Invitation.

(b) Drawings.

(1) Sheets Nos. 1 of 91 Through 91 of 91. - Manually renumber Sheets 1 of 91 through 91 of 91 to read 1 of 93 through 93 of 93.

(2) Sheet No. 69 of 93. - Delete Sheet 69 of 93 and substitute the enclosed new Sheets 69A of 93, 69B of 93, and 69C of 93.

2. This amendment shall be attached to, and become a part of, the specifications.

Encl

1. Bd Sched, Pgs 00010-1 thru 00010-4
2. SECTION 02222
3. SECTION 02223
4. SECTION 02312
5. SECTION 02700
- 6 Shts 69A of 93, 69B of 93, and 69C of 93

**GULF INTRACOASTAL WATERWAY,
TEXAS, MILE 293 TO HIGH ISLAND IN
JEFFERSON, CHAMBERS, AND
GALVESOTN COUNTIES, TEXAS,
DREDGING**

**BIDDING SCHEDULE
(TO BE ATTACHED TO STANDARD FORM 1442)**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>SCHEDULE NO. 1</u>					
0001	Removal of Existing Drop-outlets	1	L.S.	\$ _____	\$ _____
0002	Removal of Existing Abandoned Bridge Pier Structures	1	L.S.	\$ _____	\$ _____
0003	Mobilization and Demobilization	1	L.S.	\$ _____	\$ _____
*0004	Dredging	1,315,800	C.Y.	\$ _____	\$ _____
0005	Pipelines	1	L.S.	\$ _____	\$ _____
0006	Levees, Drop-outlets, and Ditches- P.A. Nos. 8, 11, 13, 17, 20, 23, 24, and 26	1	L.S.	\$ _____	\$ _____
TOTAL SCHEDULE NO. 1					\$ _____

*Subject to fuel price adjustment in accordance with NON-REGULATED SPECIAL CONTRACT REQUIREMENTS PROVISION entitled FUEL PRICE ADJUSTMENT.

00010-1

(To Accompany Amendment No. 0001 to Invitation No. DACW64-03-B-0010)

INVITATION NO. DACW64-03-B-0010

BIDDING SCHEDULE (CONT'D)
(TO BE ATTACHED TO STANDARD FORM 1442)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>OPTION NO. 1</u>					
0007	Levees, Drop-outlets, and Ditches- P.A. Nos. 4 and 6	1	L.S.	\$ _____	\$ _____
0008	Pipelines	1	L.S.	\$ _____	\$ _____
TOTAL OPTION NO. 1					\$ _____
TOTAL SCHEDULE NO. 1 AND OPTION NO. 1					\$ _____

INVITATION NO. DACW64-03-B-0010

BIDDING SCHEDULE (CONT'D)
(TO BE ATTACHED TO STANDARD FORM 1442)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>OPTION NO. 2</u>					
0009	Levees, Drop-outlets, and Ditches- P.A. Nos. 4 and 6	1	L.S.	\$ _____	\$ _____
0010	Pipelines	1	L.S.	\$ _____	\$ _____
TOTAL OPTION NO. 2					\$ _____
TOTAL SCHEDULE NO. 1 AND OPTIONS NOS. 1 AND 2					\$ _____

BIDDING SCHEDULE (Cont'd)
(TO BE ATTACHED TO STANDARD FORM 1442)

1. ARITHMETIC DISCREPANCIES (JAN 1997) (EFARS 52.214-5000).

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

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

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

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

2. MODIFICATIONS (CESWG). If a modification to a bid based on unit prices is submitted, which provides for a lump sum adjustment to the total estimated cost, the application of the lump sum adjustment of each unit price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the bid schedule.

3. EVALUATION OF OPTIONS (JUL 1999) (FAR 52.217-5). Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of Options will not obligate the Government to exercise the options.

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SITE WORK

SECTION 02222 - REMOVAL OF EXISTING DROP-OUTLET STRUCTURES

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1.2	MEASUREMENT	02222-01
1.3	PAYMENT	02222-01

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1	REMOVAL OF EXISTING DROP- OUTLET STRUCTURES.	02222-01
3.2	FILL OVER EXISTING PIPES.	02222-01
3.3	DISPOSAL OF MATERIALS	02222-01

SECTION 02222 - REMOVAL OF EXISTING DROP-OUTLET STRUCTURES

PART 1 - GENERAL

1.1 SCOPE OF WORK. The work covered under this Section consists of furnishing plant, labor, materials, and equipment and performing the operations in connection with removal of ten (10), existing Drop-Outlet Structure and the fill over existing pipes. Locations are as shown.

1.2 MEASUREMENT.

1.2.1 Removal of Existing Drop-outlet Structure will not be measured for payment.

1.2.2 Fill Over Existing Pipes will not be measured for payment.

1.3 PAYMENT

1.3.1 Removal of Existing Drop-outlet Structures Payment for the work covered under this Section and the costs in connection therewith, will be included in the contract lump sum price for "Removal of Existing Drop-Outlets." The contract price shall constitute full compensation for labor and equipment used to complete the work specified in this Section.

1.3.2 Fill Over Existing Pipes will be included in the contract lump sum price for "Removal of Existing Drop-Outlets." The contract price shall constitute full compensation for labor and equipment used to complete the work specified in this Section.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 REMOVAL OF EXISTING DROP-OUTLET STRUCTURES. Wood and structural steel that comprise the superstructure shall be removed above its concrete slab base. The concrete slab and piling beneath it may be allowed to remain intact.

3.2 FILL OVER EXISTING PIPES. The Contractor will be required to place a minimum of 2 feet of fill over the remaining drop-outlet slabs and pipes.

3.3 DISPOSAL OF MATERIALS. Unsuitable soft materials shall be disposed inside the Placement Area. Pipes, wood, metal, and other related debris shall become the property of the Contractor and shall be disposed off-site at locations provided by the Contractor in compliance with the Federal, State, and local laws and ordinances.

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SITE WORK

**SECTION 02223 - REMOVAL OF EXISTING ABANDONED BRIDGE PIER
STRUCTURES**

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PART 3 - EXECUTION		
3.1	REMOVAL OF EXISTING ABANDONED BRIDGE	
3.2	PIER STRUCTURES	02223-01
3.2	DISPOSAL OF MATERIALS	02223-02

SECTION 02223 - REMOVAL OF EXISTING ABANDONED BRIDGE PIER STRUCTURES

PART 1 - GENERAL

1.1 SCOPE OF WORK. The work covered in this Section consists of furnishing, labor, materials, and equipment necessary for performing operations in connection with removal of existing abandoned bridge pier structures and treated wood pilings located within the banks of the Gulf Intracoastal Waterway adjacent to the High Island bridge abutments as shown in the supporting photographs enclosed at the end of this Section.

1.2 MEASUREMENT.

1.2.1 Removal of Existing Abandoned Bridge Pier Structures shall not be measured for payment.

1.3 PAYMENT.

1.3.1 Removal of Existing Abandoned Bridge Pier Structures. Payment for the work covered herein and the costs in connection therewith, will be included in the contract lump sum price for "Removal of Existing Abandoned Bridge Pier Structures," which shall constitute full compensation for labor and equipment used to complete the work specified herein.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 REMOVAL OF EXISTING ABANDONED BRIDGE PIER STRUCTURES. Formed in place steel reinforced concrete bridge piers shall be demolished and removed from the existing navigation channel by utilizing a boom-mounted pneumatic breaker and air powered saw to minimize impact to the surrounding environment. Treated wooden pilings shall be removed with a minimum amount of damage to the piling. The Contractor shall coordinate demolition efforts with the local Drainage District at (409) 842-1818 for the removal of existing guy wire and electrical conduit fastened to the downstream abandoned bridge pier structure.

3.1.1 Temporary Works. Design and construction of temporary retaining structures is the responsibility of the Contractor. The design shall conform to the latest edition of the AASHTO "Guide Design Specification for Bridge Temporary Works."

3.1.2 Cofferdams for foundation demolition shall be carried to adequate depths and heights, be safely designed and constructed and made watertight as necessary for the proper performance of the work. The interior dimensions of cofferdams shall give sufficient clearance for the demolition of the existing structures and inspection after completion. After completion the cofferdams and related equipment and materials shall be removed without disturbing the existing environment.

3.1.3 Removal. The contractor shall demolish and remove material in sections. No part of the structure will be allowed to fall into the water. Components that have been dropped into the water shall be removed from the water before demolition can proceed. The Contractor shall remove existing engineered materials and debris within a 25-foot radius measured horizontally from the structure perimeter that has resulted from the gradual deterioration of the structure. The Contractor shall demolish and remove existing engineered materials and debris to a depth of 3 feet measured from the existing mud line.

3.2 DISPOSAL OF MATERIALS. Pier materials and related debris shall become the property of the Contractor and shall be disposed off-site at locations provided by the Contractor in compliance with the Federal, State, and local laws and ordinances.



Conduit to be removed prior to demolition

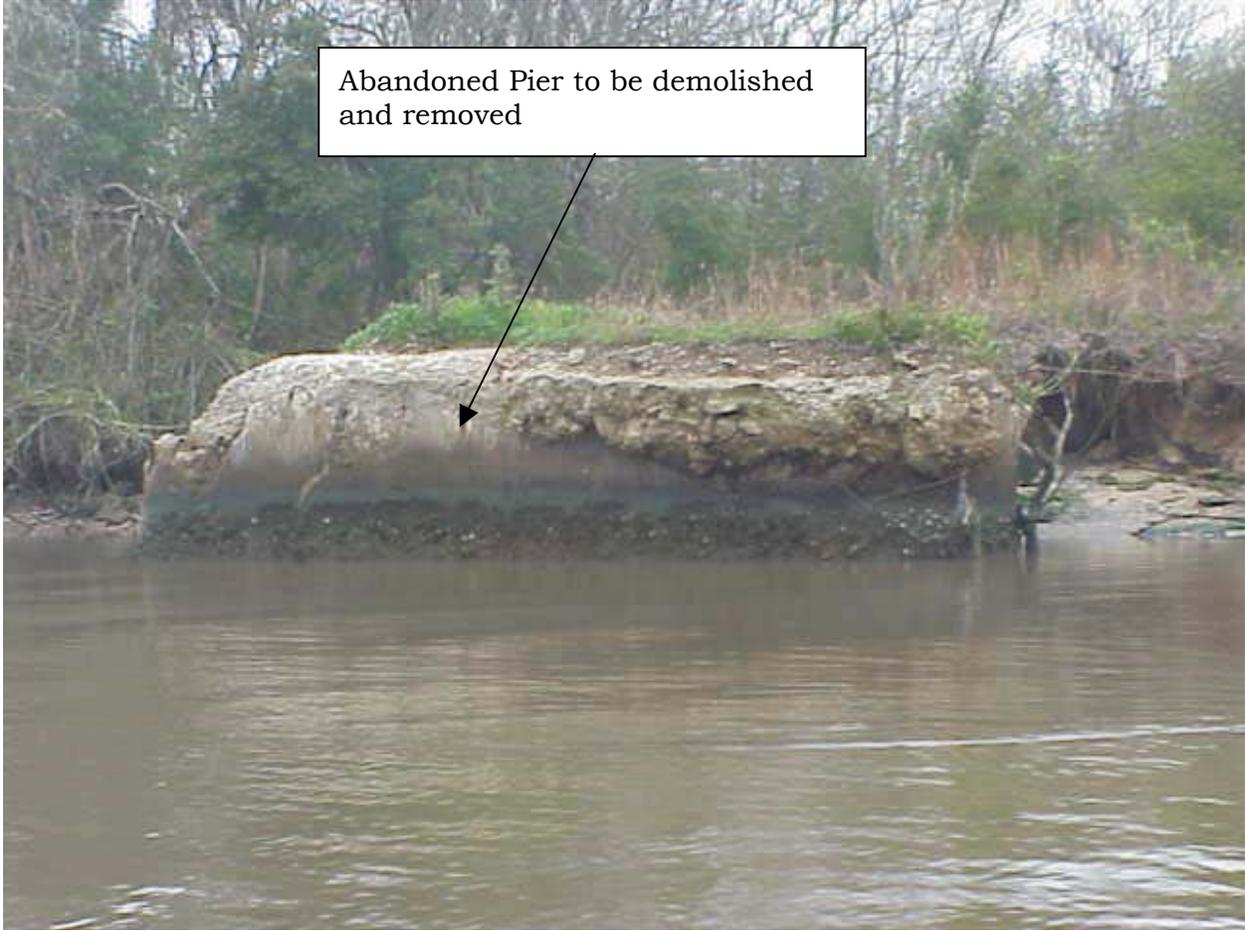
Abandoned Pier to be demolished and removed

Footing to be demolished and removed

Demolition of Downstream Piers



Demolition of Downstream Piers



Demolition of Upstream Piers

Existing Pier to be demolished and removed

Existing treated wooden pilings to be removed



Demolition of Upstream Piers



Demolition of Downstream Piers

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**SECTION 02312 - EXCAVATION, FILLING, AND BACKFILLING
FOR DROP-OUTLET STRUCTURES**

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PART 3 - EXECUTION		
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**SECTION 02312 - EXCAVATION, FILLING, AND BACKFILLING
FOR DROP-OUTLET STRUCTURES**

PART 1 - GENERAL

1.1 SCOPE OF WORK. The work covered in this Section consists of furnishing plant, labor, materials, and equipment and performing the earthwork operations in connection with construction of Drop-Outlet Structures at Placement Areas Nos. 8, 11, 13, 17, 23, 24, and 26 under Schedule No. 1 and Placement Areas Nos. 4 and 6 under Option No. 1, as shown. Construction of the Drop-outlet structures shall be in a dry condition.

1.2 MEASUREMENT. The work specified in this Section shall not be measured for payment.

1.3 PAYMENT. No separate payment will be made for work specified in this Section and will be considered a subsidiary obligation of the Contractor, the cost of which will be included in the applicable contract price for the item to which the work pertains.

PART 2 - PRODUCTS

2.1 SATISFACTORY SOILS are defined as firm or medium stiff to hard clays, shell, and sands. Placed soils shall be similar to the surrounding soils.

PART 3 - EXECUTION

3.1 EXCAVATION.

3.1.1 General. Excavation for the structures shall conform to the dimensions and elevations for the structures as shown. Excavation carried below indicated depths of the structures will not be permitted except to remove unsatisfactory material as directed. Unsatisfactory material shall be excavated below the depths shown and replaced with satisfactory material. Material removed below the depths shown shall be replaced to the indicated excavation grade with satisfactory materials placed and compacted as specified in the SECTION entitled EMBANKMENT CONSTRUCTION at no additional cost to the Government

3.1.2 Drainage. Excavation shall be performed using a method that will ensure that the area of the site and the area immediately surrounding the site are continually and effectively drained. Water shall not be permitted to accumulate in the excavation. The excavation shall be drained by satisfactory methods to prevent softening of the foundation bottom, undercutting of footings, or other actions detrimental to proper construction procedures.

3.1.3 Excavated Materials. Satisfactory excavated material, as specified, required for fill or backfill shall be placed in the proper section of the permanent work specified herein or shall be separately stockpiled if it cannot be readily placed. Stockpiles shall be placed, graded, and shaped for proper drainage.

3.1.4 Final Grade. Care shall be taken not to disturb the bottom of the excavation and excavation to final grade shall not be made until just before the pipe or drop-outlet structure is to be placed. Soft spots encountered within the foundation area shall be removed, replaced by approved satisfactory materials of similar soil type, and compacted to a similar percent compaction of the adjacent foundation areas.

3.2 FILLING AND BACKFILLING FOR STRUCTURE.

3.2.1 General. Backfill and fill shall be placed evenly around the completed structure to the lines and grades shown. Equipment used in filling and backfilling shall conform to the requirements of the SECTION entitled EMBANKMENT CONSTRUCTION.

3.2.2 Preparation of Ground Surfaces. Unsatisfactory material in surfaces to receive fill shall be removed and replaced with satisfactory materials. The placing and compaction of satisfactory materials shall be as specified below.

3.2.3 Placement. Backfill and fill for structures shall be placed in horizontal layers not to exceed 8 inches in loose depth and then compacted. Material shall not be placed on a surface that is muddy, frozen, or contains frost. Backfilling shall not begin until construction below finished grade has been approved, and the excavation cleaned of trash and debris. Backfill and fill shall be brought up to the indicated finished grade. Where material is to be placed against both sides of a wall, the placement of lifts shall be controlled so that the difference between the earth elevation on one (1) side and the earth elevation on the other side of the wall is as small as practicable. However, the difference in elevations may not exceed 2 feet unless the finished grade on one (1) side of the wall differs from the finished grade on the other, and the earth surface on both sides of the wall has been brought up to the lower finished grade. Unless otherwise shown, backfill and fill for structures shall be sloped to drain away from the structure. Unless otherwise directed, the placing and compaction of backfill and fill material shall conform to the provisions of the SECTION entitled EMBANKMENT CONSTRUCTION. Heavy equipment for spreading or compacting shall not be operated closer than 3 feet to a foundation or wall. Material within 3 feet of foundations, walls, and tops of structures shall be compacted by power-driven tampers.

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2.1	MATERIALS.	02700-02
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3.1	ERECTION OF STRUCTURAL STEEL.	02700-03
3.2	INLET HEADWALLS.	02700-03
3.3	PILES.	02700-03
3.4	CONTRACTOR QUALITY CONTROL.	02700-05

SECTION 02700 - DROP-OUTLET STRUCTURES**PART 1 - GENERAL**

1.1 SCOPE OF WORK. The work covered in this Section consists of furnishing plant, labor, materials, and equipment and performing the operations in connection with construction of new Drop-outlet Structures at Placement Areas Nos. 8, 11, 13, 17, 23, 24, and 26 under Schedule No. 1 and Placement Areas Nos. 4 and 6 under Option No. 1, as shown. The term "Drop-outlet Structure" shall include Support Stanchions, Support Bracing, Concrete, Walkways, Handrails, and Discharge Pipe as shown.

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 the basic designation only.

American Society for Testing and Materials (ASTM) Specifications.

A 36-00	Carbon Structural Steel
A 123-00	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
A 588-00	High Strength Low-Alloy Structural Steel with 50 ksi (345 MPa) Minimum Yield Point to 4 in. (100 mm) Thick.

American Institute of Steel Construction (AISC) Specifications.American Welding Society (AWS) Standard.

D1.1-02	Structural Welding Code, Steel.
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American Wood-Preservers' Association (AWPA) Standards.

C 2-95	Lumber, Timbers, Bridge Ties and Mine Ties - Pressure Treatment
M 4-95	Care of Preservative-Treated Wood Products.

Federal Specification (Fed. Spec.).

RR-G-1602C	Grating, Metal, Other Than Bar Type (Floor, Except for Naval Vessels).
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1.3 STRUCTURES.

1.3.1 New Drop-outlet Structures. The new Drop-outlet Structures shall be constructed at the location shown and shall conform to the details indicated.

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

1.4.1 SD-04 Drawings.

1.4.1.1 Structure Components: GA. Five (5) sets of shop drawings for the components of the structure shall be submitted.

1.4.2 SD-13 Certificates.

1.4.2.1 Materials: GA. Certificates from suppliers which demonstrate compliance with the applicable specifications shall be submitted for structural steel, lumber treatment, grating, and paint.

1.5 PAYMENT for the work specified in this Section will be included in the contract lump sum prices for "Levees, Drop-outlets, and Ditches-P.A. Nos. 8, 11, 13, 17, 23, 24, and 26" under Schedule No. 1, ,and "Levees, Drop-outlets, and Ditches-P.A. Nos. 4 and 6 under Option No. 2, which will constitute full payment for material, labor, and inspection necessary to complete the work.

PART 2 - PRODUCTS

2.1 MATERIALS. for the Structures shall meet the requirements. specified below

2.1.1 Concrete shall conform to the requirements in the SECTION entitled CONCRETE.

2.1.2 Structural Steel shall conform to the requirements of ASTM A 588 for piles and ASTM A 36 for other steel members.

2.1.3 Grating shall be of plank type and shall conform to the requirements of Fed. Spec. RR-G-1602C, galvanized, Type II, serrated. The grating shall have an anti-slip surface and the depths shall be as shown.

2.1.4 Drainage Conduits shall meet the requirements of the SECTION entitled PIPE.

2.1.5 Lumber shall be southern yellow pine rough No. 1, dense, minimum allowable bending stress of 1,650 psi. Cuts in timber or abraded surfaces of new work shall receive a field treatment in accordance with AWPA M 4.

2.1.5.1 Treated Lumber shall be furnished and installed by the Contractor on the sides of the structures from the top of the concrete slab or headwall to the elevations shown. Lumber thickness and length shall be as shown. Lumber shall be 12-inch nominal width. Lumber to be furnished shall be straight, even sawed, sound, and entirely free from defects which can impair its durability or its usefulness for the purpose intended. Lumber shall bear the official Grade mark of the association under whose rules it is purchased or in lieu thereof, each shipment shall be accompanied by a certificate of inspection issued by the inspection association. Lumber shall have a Chromated Copper Arsenate (CCA) preservative treatment and shall be accompanied by a certificate from a recognized treatment company certifying the amount of treatment.

2.1.5.2 Preservative Treatment by pressure processes shall be in accordance with AWWA C 2. Lumber shall receive a treatment of 2.5 pcf of CCA solution.

2.2 FABRICATION.

2.2.1 Structural Steel shall be fabricated in accordance with the latest specifications of the AISC.

2.2.2 Welding shall meet the requirements of the AWS Standard D1.1 and as shown.

2.2.3 Galvanizing of steel handrails, grating, pipe sleeve, and headwall steel plate shall conform to the requirements of ASTM Standard A 123. Galvanizing shall be 2 ounces of hot-dip zinc coating per square foot of surface area. Galvanized areas damaged, abraded or where galvanized material has been broken by field welding, cutting, drilling, handling, storage, or by other means shall be coated with two (2) coats of Galvaweld or other material as approved.

2.2.4 Painting. Structural steel, except steel handrails, shall be painted with two (2) coats of Devoe Catha-Coat 300 zinc self-curing primer and coated with two (2) coats of Devoe 221 Devtar 5A corrosion control coating or equivalent products as approved. Surface preparation and paint application shall follow manufacturer's recommendations. Safety precautions included with the application instructions shall be observed during storage, handling, and use. Steel handrails shall be galvanized, as specified above, after fabrication.

PART 3 - EXECUTION

3.1 ERECTION OF STRUCTURAL STEEL shall be in accordance with the latest specifications of the AISC.

3.2 INLET HEADWALLS shall be constructed of reinforced concrete or steel plate as indicated.

3.3 PILES. Sizes and locations of the steel W-piles and H-piles shall be as shown.

3.3.1 Placing. Piles shall be driven as accurately as practicable in the correct locations true to line laterally, longitudinally and vertically. The final locations of piles shall be such that the framing members may be erected without excessive straining, crimping or bending of the member or piles. Piles may be continuous from the top of the platform or they may be cut and spliced near the mid-depth of the slab with full penetration welds as shown.

3.3.2 Driving. Piles shall be driven with a hammer of the size and type suitable for the work. The hammers shall be operated at the speed and conditions recommended by the manufacturer. Power capacity shall be sufficient to operate the hammer continuously at full rated speed. A cast or structural steel driving head or mandrel shall be used to prevent upsetting the pile head. Pile drivers shall have firmly supported leads extending to the lowest point the hammer must reach. Each pile shall be driven continuously and without voluntary interruption until the required depth of penetration has been attained. Deviation from this procedure will be permitted only in case the driving is stopped by causes which reasonably could not have been anticipated. When handling and driving long piles of a high slenderness-ratio, special precautions shall be taken to ensure against overstress or leading away from a plumb or true position when driving.

3.3.2.1 Pile Obstruction. A pile which cannot be driven to the required depth because of an obstruction shall remain in place at the maximum depth attainable. The Contracting Officer shall determine by consideration of the penetration obtained for the initial pile, whether one (1) or more additional piles will be required. An additional pile may be driven vertically or on a batter as directed. It shall terminate near the mid-depth of the slab and be field cut and welded to the original pile as directed. The concrete slab shall be extended parallel and perpendicular to the main slab, sufficiently to encase the pile with a minimum of 1-foot of concrete at any point through the slab. Unless otherwise directed, the tip elevation shall be the same as that specified for the original piles. The location, spacing, and alignment of the portion of piles above the concrete slab shall be maintained as shown.

3.3.2.2 Unsatisfactory Piles. Piles which are damaged, mislocated, or driven out of alignment shall be withdrawn and replaced by new piles, or shall be cut off and abandoned and additional piles driven, as specified in Paragraph: Pile Obstruction above, or as directed, without additional cost to the Government. Relocated piles shall be located to permit framing as shown.

3.3.3 Jetting. Water jets shall not be used for driving unless specifically authorized. The Contracting Officer may require its use when satisfactory penetration is not obtained otherwise. When jetting is required, the jetting equipment shall be of an approved type and capacity. Jetted piles shall be seated by driving not less than 5 feet after jetting has been stopped.

3.3.4 Inspected Piles. The Contracting Officer may require that a pile be withdrawn for inspection. Piles found to be in suitable condition shall be redriven. The cost for pulling and redriving good piles shall be determined by the Contractor and Contracting Officer. The cost for pulling and redriving good piles shall be borne by the

Government. Piles found not suitable shall be replaced by new piles, at no additional cost to the Government.

3.4 CONTRACTOR QUALITY CONTROL.

3.4.1 Compliance Inspection. The Contractor shall inspect for compliance with contract requirements and record the inspection of the operations including but not limited to the following:

- (1) Materials. Certificates shall be submitted to show conformance with applicable specifications and drawings; visual and dimensional inspections.
- (2) Placement. A record shall be submitted of the hammer data, actual location, and actual length and top elevation of each pile.

3.4.2 Records. A copy of the records of inspections and tests, as well as the records of corrective action taken, will be furnished the Government as directed.

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