

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF	PAGES
---------------------	------	----	-------

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
-------------------------------	-------------------	----------------------------------	--------------------------------

6. ISSUED BY CODE	7. ADMINISTERED BY (If other than Item 6) CODE
---	--

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-0022, Dredging, High Island to Rollover Pass, Port Bolivar and Channel Fronting Highway Ferry Slip at Port Bolivar, and Texas City Y to Galveston Causeway in Chambers and Galveston Counties, Texas, Gulf Intracoastal Waterway, Texas, advertised 24 June 2003, and for which bids are to be opened on 24 July 2003, are hereby modified as follows:

(a) Specifications.

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

(2) Page 00700-93 of 93, FAR 52.217-7 OPTION FOR INCREASED QUANTITY-SEPARATELY PRICED LINE ITEM (MAR 1989). - At the end of this Section, add following new Clause:

"FAR 52.217-7 OPTION FOR INCREASED QUANTITY SEPARATELY PRICED LINE ITEM (MAR 1989). The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 60 days prior to Completion of Work. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of Clause)"

(3) GENERAL DECISION NUMBER TX030047, Wage Rates, Heavy Construction, Pages 1 Through 4. - The enclosed new General Decision Number TX030047, Wage Rates, Heavy Construction shall be added to and become a part of this Invitation.

(4) Page 01312-3, Subparagraph 1.6.1.5. - Renumber this Subparagraph to read "1.6.1.4."

(5) Page 01312-4, Subparagraph 1.6.1.7. - Renumber this Subparagraph to read "1.6.1.5."

(6) Page 02219-2, Subparagraphs 3.5.1 and 3.5.2. - Renumber these Subparagraphs to read "3.4.1" and "3.4.2." respectively.

(7) Page 02329-3, Subparagraph 3.3.3. - Renumber this Subparagraph to read "3.3.2."

(8) SECTION 02482 DREDGING. - The enclosed new SECTION 02482 entitled DREDGING shall supersede that issued with this Invitation.

(b) Drawings.

(1) Sheet No. 1 of 37. - Manually renumber this Sheet to read "1 of 38."

(2) Sheet No. 2 of 37. - Manually renumber this Sheet to read "2 of 38." Also, manually add the label "NOT AVAILABLE" to PLACEMENT AREA NO. 48.

(3) Sheet No. 3 of 37. - The enclosed new Sheet No. "3 of 38" supercedes Sheet No. "3 of 37."

(4) Sheet No. 4 of 37. - The enclosed new Sheet No. "4 of 38" supercedes Sheet No. "4 of 37."

(5) Sheet No. 4A of 38. - The enclosed new Sheet No. "4A of 38" shall be added to and become a part of this Invitation.

(6) Sheet No. 5 of 37. - Manually renumber this Sheet to read "5 of 38." Also, manually add a new CROSS SECTION location for STATION C.S. 3204+00 on the PLAN.

(7) Sheet No. 6 of 37. - The enclosed new Sheet No. "6 of 38" supercedes Sheet No. "6 of 37."

(8) Sheet Nos. 7 of 37 Through 10 of 37. - Manually renumber these Sheets to read "7 of 38" through "10 of 38."

(9) Sheet No. 11 of 37. - Manually renumber this Sheet to read "11 of 38." Also, manually change the SIDE SLOPE "1 ON 3" to read "1 ON 5" for all CROSS SECTIONS.

(10) Sheet Nos. 12 of 37 and 13 of 37. - The enclosed new Sheet Nos. "12 of 38" and "13 of 38" supercede Sheet Nos. "12 of 37" and "13 of 37."

(11) Sheet No. 14 of 37. - Manually renumber this Sheet to read "14 of 38." Also, manually change the SIDE SLOPE "1 ON 3" to read "1 ON 5" for all CROSS SECTIONS.

(12) Sheet No. 15 of 37. - The enclosed new Sheet No. "15 of 38" supercedes Sheet No. "15 of 37."

(13) Sheet Nos. 16 of 37 and 17 of 37. - Manually renumber these Sheets to read "16 of 38" and "17 of 38." Also, manually change SIDE SLOPE "1 ON 3" to read "1 ON 2" for all CROSS SECTIONS.

(14) Sheet Nos. 18 of 37 and 19 of 37. - Manually renumber these Sheets to read "18 of 38" and "19 of 38."

(15) Sheet Nos. 20 of 37 Through 28 of 37. - The enclosed new Sheet Nos. "20 of 38" through "28 of 38" supercedes Sheet Nos. "20 of 37 through "28 of 37."

(16) Sheet Nos. 29 of 37 Through 34 of 37. - Manually renumber these Sheets to read "29 of 38" through "34 of 38."

(17) Sheet Nos. 35 of 37 Through 37 of 37. - The enclosed new Sheet Nos. "35 of 38" through "37 of 38" supercedes Sheet Nos. "35 of 37 through "37 of 37."

NOTE: Sheet No. 4A of 38, added to this Invitation by this Amendment, is the basis for changing the Sheet numbering. There is now 38 Sheets in this Invitation.

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

4 Encls

1. Bd Sched, Pgs 00010-1 thru 00010-4
2. Wage Rates
3. Section 02482
4. Sht Nos. 3 of 38, 4 of 38, 4A of 38,
6 of 38, 12 of 38, 13 of 38,
20 of 38 thru 28 of 38, &
35 of 38 thru 37 of 38

**GULF INTRACOASTAL WATERWAY,
TEXAS, HIGH ISLAND TO ROLLOVER PASS,
PORT BOLIVAR AND CHANNEL FRONTING
HIGHWAY FERRY SLIP AT PORT
BOLIVAR, AND TEXAS CITY Y TO
GALVESTON CAUSEWAY IN CHAMBERS AND
GALVESTON COUNTIES, 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	Levees, Drop-outlets, and Ditches	1	L.S.	\$_____	\$_____
0002	Mobilization and Demobilization Channel Fronting Highway Ferry Slip	1	L.S.	\$_____	\$_____
0003	Dredging Channel Fronting Highway Ferry Slip	84,000	C.Y.	\$_____	\$_____
0004	Pipelines Channel Fronting Highway Ferry Slip	1	L.S.	\$_____	\$_____
0005	Mobilization and Demobilization GIWW	1	L.S.	\$_____	\$_____
0006	Dredging GIWW	895,000	C.Y.	\$_____	\$_____
0007	Pipelines GIWW	1	L.S.	\$_____	\$_____
0008	Surveys	1	L.S.	\$_____	\$_____
0009	New Drop-outlet Structure	1	L.S.	\$_____	\$_____
TOTAL SCHEDULE NO. 1					\$_____

00010-1

(To Accompany Amendment No. 0001 to Invitation No. DACW64-03-B-0022)

INVITATION NO. DACW64-03-B-0022

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

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<u>OPTION</u>					
0010	Mobilization and Demobilization Rollover Pass	1	L.S.	\$_____	\$_____
0011	Dredging Rollover Pass	91,000	C.Y.	\$_____	\$_____
0012	Pipelines Rollover Pass	1	L.S.	\$_____	\$_____
OPTION					\$_____
TOTAL SCHEDULE NO. 1 AND OPTION					\$_____

THE CONTRACTING OFFICER MAY EXERCISE THE OPTION BY WRITTEN NOTICE TO THE CONTRACTOR WITHIN 60 DAYS PRIOR TO COMPLETION OF WORK.

00010-2

(To Accompany Amendment No. 0001 to Invitation No. DACW64-03-B-0022)

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. SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN (FAR 52.219-9)(SEE CONTRACT CLAUSES). In reference to the above, the bidder/offeror shall take into consideration only those subcontracts which he/she will award when preparing the subcontracting plan required in FAR.

4. EVALUATION OF OPTIONS (JUL 1990) (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.

INVITATION NO. DACW64-02-B-0043

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

5. SALES TAX EXEMPTION. If you intend seeking a sales tax exemption on this contract, please contact the Comptroller of Public Accounts at 1 800-252-5555.

00010-4

(To Accompany Amendment No. 0001 to Invitation No. DACW64-03-B-0022)

SECTION TABLE OF CONTENTS**SITE WORK****SECTION 02482 - DREDGING**

PARAGRAPH	TITLE	PAGE NOS.
PART 1 - GENERAL		
1.1	SCOPE OF WORK.	02482-01
1.2	LOCATION.	02482-02
1.3	OBSTRUCTION OF CHANNEL	02482-02
1.4	TEMPORARY REMOVAL OF AIDS TO NAVIGATION.	02482-02
1.5	NOTIFICATION PRIOR TO COMMENCEMENT OF DREDGING OPERATIONS	02482-02
1.6	ENVIRONMENTAL CONTROL MEASURES.	02482-02
1.7	UTILITIES ACROSS THE LIMITS OF DREDGING.	02482-03
1.8	WORK COVERED BY THE CONTRACT PRICE	02482-04
1.9	CHARACTER OF MATERIALS.	02482-04
1.10	MEASUREMENT	02482-05
1.11	PAYMENT	02482-06
PART 2 - PRODUCTS		
2.1	BRIDGE-TO-BRIDGE RADIO-TELEPHONE EQUIPMENT.	02482-06
2.2	LOOKOUTS AND RADIO COMMUNICATIONS	02482-06
PART 3 - EXECUTION		
3.1	ESTIMATED QUANTITIES.	02482-07
3.2	CONTRACTOR QUALITY CONTROL.	02482-08
3.3	ORDER OF WORK.	02482-08
3.4	SECTIONS.	02482-09
3.5	PLACEMENT OF EXCAVATED MATERIAL.	02482-09
3.6	OVERDEPTH, SIDE AND END SLOPES	02482-17
3.7	HOUSTON-GALVESTON VESSEL TRAFFIC SERVICE AREA	02482-20
3.8	REPORTING REQUIREMENT	02482-20
3.9	DREDGE MONITORING REQUIREMENTS.	02482-21

SECTION 02482 - DREDGING**PART 1 - GENERAL**

1.1 SCOPE OF WORK. The work in this Section consists of furnishing plant, labor, materials, and equipment and performing the work required by these specifications, schedules, and drawings forming parts thereof for dredging this project as follows:

Required Depth Below MLT (Feet)	Required Width (Feet)	From Station	To Station	Distance Between Stations (Feet)
GULF INTRACOASTAL WATERWAY				
16	125	1620+00	1740+00	12,000
16	125	1790+00	1820+00	2,000
16	125	1869+42	1890+00	2,058
16	125	1900+00	2120+00	22,000
16	125-590	3140+00	3206+00	6,600
16	400-125	3285+09	3291+12	603
16	125	3291+12	3320+00	2,888
16	125	3357+00	3577+48	22,048
		TOTAL		70,197
CHANNEL FRONTING HIGHWAY FERRY SLIP				
22	200	-0+30	10+00	1,030
		TOTAL		1,030
OPTION - ROLLOVER PASS				
16	125	2120+00	2180+00	6,000
		TOTAL		6,000

1.1.1 The varying bottom width(s) and lengths to be dredged are shown and referred to in the SPECIAL CONTRACT REQUIREMENTS, STANDARD CLAUSE entitled CONTRACT DRAWINGS AND SPECIFICATIONS. The Contractor shall remove sufficient material to provide the limiting side and end slopes specified in the Paragraph: OVERDEPTH, SIDE, AND END SLOPES, below.

1.1.2 The work is divided into 17 reaches, specified in the Bidding Schedule as Schedule No. 1 and an Option. The Contractor shall perform the work specified in the Option only if the Contracting Officer awards the reach. Dredging for the Option will be awarded no later than 30 days prior to the completion of the dredging portion of Schedule No. 1 of this contract.

1.2 LOCATION. Gulf Intracoastal Waterway from High Island to Rollover Pass to Port Bolivar and the Texas City "Y" to Galveston Causeway and includes the Channel Fronting Highway Ferry Slip. The work is located in Chambers and Galveston Counties, Texas.

1.3 OBSTRUCTION OF CHANNEL. The Government will not undertake to keep the Channel free from vessels or other obstructions, except to the extent of the regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917. The Contractor shall conduct the work using a method that shall obstruct navigation as little as possible, and if the Contractor's plant does obstruct the Channel and makes the passage of vessels difficult or endangers them, the plant shall be promptly moved on the approach of a vessel to afford a practicable passage. Upon completion of the work, the Contractor shall promptly remove its plant, including ranges, buoys, piles, and other marks placed by the Contractor under this contract.

1.4 TEMPORARY REMOVAL OF AIDS TO NAVIGATION. The temporary removal or changes in locations of channel markers may be required to facilitate dredging operations. The Contractor shall notify the Contracting Officer at least 21 days prior to the date that the removal or change in location of channel markers will be required so the U.S. Coast Guard can perform the work and so navigation interests may be informed sufficiently in advance of the proposed removal or change in location.

1.5 NOTIFICATION PRIOR TO COMMENCEMENT OF DREDGING OPERATIONS. The Contractor shall notify the Area Engineer, Northern Area Office, in writing, at least 10 days prior to commencement of dredging operations, of the location or locations at which a dredge or dredges shall be placed on the work. This information is required in addition to the progress charts and schedules provided for in the CONTRACT CLAUSE entitled SCHEDULE FOR CONSTRUCTION CONTRACTS.

1.6 ENVIRONMENTAL CONTROL MEASURES. The Contractor shall comply with the requirements specified in the SECTION entitled ENVIRONMENTAL PROTECTION to prevent degradation of the human environment.

1.7 UTILITIES ACROSS THE LIMITS OF DREDGING. The following bridge, tunnels, overhead lines, and submerged lines cross the areas to be dredged:

Approximate Station	Description	Owner
1620+00	Underground Fiber-Optic Cable in 4-inch Casing	Cameron Telephone Company Permit No. 14114 (02)/258
1621+50 (Approx.)	Overhead Power Line Vertical Clearance 110 Feet M.L.T.	Gulf States Utilities Co.
1624+00	12-inch Pipe Water Line	Bolivar Peninsula Water Supply Corp. Permit No. 7490
1759+70	Four 2-inch Pipes Top Pipe El. -25 Feet M.L.T.	John W. Mecom Permit No. 1501
1769+75	Five 3-inch Pipes Top Pipe El. -25 Feet M.L.T.	Placid Oil Co. Permit No. 859
1779+50 to 1779+76	One 6-inch Pipe One 4-inch Pipe One 10-inch Pipe One 8-inch Pipe Five 4-inch Pipes One 1-inch Pipe	AMOCO Pipeline Co. Permit No. 6186 Union Texas Petroleum Co. Permit No. 5990 Mecom Oil Co. Permit No. 6187 Service Pipeline Co. Permit No. 6468
2355+90	One 6-inch Pipeline 23 feet below MLT	Union Texas Petroleum Permit No. 2835
3020+99	Two 10-inch Pipelines 25 feet below MLT	Chambers County Gas Gathering System Permit No. 14091
3022+00	One 16 inch Pipeline 28 feet below MLT	Black Marlin Pipeline Company Permit No. 6950
3108+14.96	Two Concrete Pipes 25 feet below MLT	Seagull Pipeline Corp. Permit No. 9923

EVERY EFFORT HAS BEEN MADE TO GIVE ALL PERTINENT DETAILS ON THE LOCATION OF THE PIPELINES. THE DATA FURNISHED ARE BELIEVED TO BE SUBSTANTIALLY CORRECT. HOWEVER, THE EXACT LOCATIONS MAY VARY FROM THAT SHOWN: THEREFORE THE CONTRACTOR SHALL COOPERATE WITH THE RESPECTIVE OWNERS TO ESTABLISH THE ACTUAL POSITION OF THE PIPELINES. THE U.S. ARMY CORPS OF ENGINEERS PERMITS OF THE

RESPECTIVE PIPELINES AND PREVIOUS SURVEYS ARE AVAILABLE IN THE NORTHERN AREA OFFICE.

THE FOLLOWING IS FURNISHED FOR INFORMATION ON VERIFYING PIPELINE OWNERSHIPS:

Lone Star Notification Service (Texas-One-Call) 1-713-223-4567
or 1-800-669-8344.

Texas Excavation Safety System
(Dig-Tess) 1-800-344-8377.

1.8 WORK COVERED BY THE CONTRACT PRICE.

1.8.1 Mobilization and Demobilization. The contract lump sum price for "Mobilization and Demobilization Channel Fronting Highway Ferry Slip", "Mobilization and Demobilization GIWW," and "Mobilization and Demobilization Rollover Pass" shall include the costs in connection with mobilization and demobilization of the plant necessary to perform work under the various bid items. The contract price shall include transportation and other costs incidental to delivery of the plant and other equipment to the general work area in condition ready for operation and, after the completion of the work, for removal of the plant and equipment from the work sites.

1.8.2 Dredging. The contract price per cubic yard for "Dredging Channel Fronting Highway Ferry Slip," "Dredging GIWW," and "Dredging Rollover Pass" shall include the cost of removal and placement of the material as specified in Paragraphs: CHARACTER OF MATERIALS and PLACEMENT OF EXCAVATED MATERIAL below.

1.8.3 Pipelines. The contract lump sum price for "Pipelines Channel Fronting Highway Ferry Slip," "Pipelines GIWW," and "Pipelines Rollover Pass" shall include the cost to place, remove, and handle shore pipelines to and at the Placement Areas, for procurement of materials, and for construction of ramps or installation of culvert pipes which may be necessary in connection with placing shore pipelines.

1.8.4 Surveys. The contract lump sum price for "Surveys" shall include the costs in connection with the surveys required to locate and mark the limiting lines of discharge in the Placement Areas specified herein, as well as the baseline and discharge point locations for placement of dredged fill on Rollover Beach.

1.9 CHARACTER OF MATERIALS.

1.9.1 Material. The material to be removed to restore the depths within the limits specified in the Paragraph: SCOPE OF WORK, above, is composed of shoals that have accumulated over a period of time; however, some virgin material may be encountered in the prescribed depth, allowable overdepth, or side slope dredging. Bidders are expected to examine the work site and the records of previous dredging, which are available in the Northern Area Office, and after investigation decide for themselves the character of the materials.

1.9.2 Debris. During the progress of the work, the Contractor shall not deposit worn out discharge pipe, wire rope, scrap metal, anchors, anchor chains, timbers, or other rubbish or obstructive material in the GIWW or the Placement Areas. This material, together with scrap rope, wire cable, snags, stumps, fiberglass, metal, piles, pipes, buoy, buoy anchors, tires, or other obstructive materials normally encountered during dredging activities shall be expected and the Contractor shall dispose of this debris at approved locations offsite.

1.10 MEASUREMENT

1.10.1 Dredging. The total amount of material removed and to be paid for under these Items of the Bidding Schedule shall be measured by the cubic yard in-place in the GIWW, Channel Fronting Highway Ferry Slip, and Rollover Pass. The measurements shall be made by computing the volume between the bottom surface shown by fathometer soundings of the last survey made before dredging and the bottom surface shown by the fathometer soundings of a survey made as soon as practicable after the entire work specified in the Paragraph: SECTIONS below, has been completed and included within the limits of the overdepth and side and end slopes specified in the Paragraph: OVERDEPTHS, SIDE AND END SLOPES below, less deductions that may be required for misplaced material specified in the Paragraph: PLACEMENT OF EXCAVATED MATERIAL below.

1.10.2 Electronic Positioning. Electronic positioning will be used by the Government and the contractor shall use DGPS either with the Coast Guard Beacon or commercially available Wide Area Augmentation System (WAAS). Corrective adjustments of two (2) meters will be allowed if there is evidence or there are sufficient grounds to identify a positioning problem. Repeatability will be established before a pay section is dredged by taking sections at approximately one-quarter intervals of the dredging section in opposite directions and sufficiently out of the template if draft allows into undisturbed areas to match over bank depths and other characteristics. The horizontal control points shown are the control points the Government will use to perform electronic surveys of land features of the project. The Government does not guarantee permanent access to these control points, therefore, it may be necessary for the Contractor to establish its own network of survey points from these survey points or from other U.S. Coast and Geodetic Survey (USCGS) monuments. Location and description of the horizontal control points which the Government plans to use to perform electronic surveys on the Gulf Intracoastal Waterway, Rollover Pass to Port Bolivar, project is available at the Northern Area Office, Galveston Location. No reference line to conduct hydrographic surveys will be allowed without written approval from the Area Engineer. Horizontal position calibration will be conducted by the contractor using either a known point or a redundant GPS using a different differential correction signal, e.g., if the surveys are being done with the Coast Guard Beacon, they can be cross checked with WAAS.

1.10.3 Drawings. The drawings represent conditions existing as of the date of their preparation. However, to reflect anticipated shoaling occurring between the dates of preparation of the drawings and the dates of the "before-dredging" sections, the estimated dredging quantities shown in the Bidding Schedule have been adjusted

accordingly. The depths and elevations shown thereon will be verified and corrected by fathometer soundings taken by the Government before dredging. Determination of quantities removed and the deductions made therefrom to determine quantities by in-place measurement to be paid for in the area specified, after having once been made will not be reopened, except on evidence of collusion, fraud, or obvious error.

1.11 PAYMENT.

1.11.1 Mobilization and Demobilization. Payment for this item will be made pursuant to the conditions of the SPECIAL CONTRACT REQUIREMENTS, STANDARD CLAUSE entitled PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

1.11.2 Dredging. Monthly partial payments for "Dredging" will be based on approximate quantities determined by fathometer soundings or sweepings taken behind the dredge.

1.11.3 Pipelines. Monthly partial payments for "Pipelines" will be based on estimates of the work completed during the period up to 80 percent of the contract price; the remaining 20 percent will be paid in the first monthly partial payment after removal of the pipeline and final clean-up of the pipeline route.

1.11.4 Surveys. The contract lump sum price for "Surveys" shall include the costs in connection with the surveys required to locate and mark the limiting lines of discharge in the Placement Areas specified herein, as well as the baseline and discharge point locations for placement of dredged fill on Rollover Beach.

PART 2 - PRODUCTS

2.1 BRIDGE-TO-BRIDGE RADIOTELEPHONE EQUIPMENT. Dredge and self-propelled attendant floating plant shall be radiotelephone equipped to comply with the provisions of the Vessel Bridge-to-Bridge Radiotelephone Act (Public Law 92-63). This will require, as a minimum, the radiotelephone equipment capable of transmitting and receiving on 156.65 MHZ (Channel 13). Multi-channel equipment will also require 156.8 MHZ (Channel 16). Dredge tugs and tenders will be considered towing vessels within the meaning of the Act.

2.2 LOOKOUTS AND RADIO COMMUNICATIONS. The Contractor shall have, in addition to the leverman or dredge master, a lookout posted in the dredge control room at all times when dredging within the boundaries of the Houston Ship Channel, to visually monitor the movement of vessels around the dredge plant, to perform radio communications with company work boats, and to deliver passing arrangements with other commercial, fishing, and recreational vessels. The lookout shall be competent in U. S. Coast Guard and Federal Communications Commissions radio communications procedures and requirements, and shall be trained in the Vessel Bridge to Bridge Radiotelephone Act. He shall maintain up to the minute information of the status of each company workboat as well as approaching vessels and shall communicate this information as required to prevent collisions. Each company workboat shall check in with the lookout when arriving at the dredge and shall receive radio clearance from the

lookout before departing the dredge. **FAILURE TO COMPLY WITH THIS REQUIREMENT WILL BE CONSIDERED A VIOLATION OF THE SAFETY PROTOCOL ESTABLISHED HEREIN. PURSUANT TO THE DIRECTION OF THE CONTRACTING OFFICER, THE CONTRACTOR MAY BE REQUIRED TO CEASE OPERATIONS UNTIL THIS PROVISION IS COMPLIED WITH. ANY SUSPENSION, DELAY, OR INTERRUPTION OF WORK ARISING FROM NON-COMPLIANCE OF THIS PROVISION SHALL NOT CONSTITUTE A BREACH OF THIS CONTRACT AND SHALL NOT ENTITLE THE CONTRACTOR TO ANY PRICE ADJUSTMENT UNDER THE CONTRACT CLAUSE ENTITLED SUSPENSION OF WORK OR ANY OTHER MANNER UNDER THIS CONTRACT.**

PART 3 - EXECUTION

3.1 ESTIMATED QUANTITIES.

3.1.1 Required Dredging Prism. The total estimated quantity of material necessary to be removed from the required dredging prism, exclusive of allowable overdepth, to complete the work specified in the Paragraph: DESCRIPTION OF WORK above, in cubic yards, inplace measurement, including anticipated shoaling occurring prior to the dates of the "before-dredging" sections is as follows: NOTE – The estimated quantities given here are based upon historic quantities, actual quantities will be provided upon acknowledgement of Notice to Proceed.

SCHEDULE NO. 1	
GULF INTRACOASTAL WATERWAY	382,000 Cubic Yards
CHANNEL FRONTING HIGHWAY FERRY SLIP	42,000 Cubic Yards
TOTAL	424,000 Cubic Yards
OPTION	
ROLLOVER PASS	42,000 Cubic Yards
TOTAL	42,000 Cubic Yards

3.1.2 Overdepth. The maximum amount of allowable overdepth dredging in cubic yards, inplace measurement, are as follows: NOTE – The estimated quantities given here are based upon historic quantities, actual quantities will be provided upon acknowledgement of Notice to Proceed.

SCHEDULE NO. 1	
GULF INTRACOASTAL WATERWAY	514,000 Cubic Yards
CHANNEL FRONTING HIGHWAY FERRY SLIP	42,000 Cubic Yards
TOTAL	555,000 Cubic Yards
OPTION	
ROLLOVER PASS	49,000 Cubic Yards
TOTAL	49,000 Cubic Yards

3.1.3 Estimated Quantities. Within the limit of available funds, the Contractor shall be required to excavate the entire quantity of material necessary to complete the work specified in the Paragraph: SCOPE OF WORK above, be it more or less than the amounts above estimated. The work is to be done in accordance with this contract and at the contract price or prices, subject to the provisions of NON-REGULATED SPECIAL CONTRACT REQUIREMENTS CLAUSE entitled VARIATIONS IN ESTIMATED QUANTITIES - DREDGING.

3.2 CONTRACTOR QUALITY CONTROL. The Contractor shall establish and maintain a Quality Control System for dredging operations to assure compliance with the contract requirements and record inspections and tests under this System.

3.3 ORDER OF WORK. The Contractor shall dredge Section 11 in the period of time between 1 December 2003 and 31 December 2003. Prior to dredging Section 11 in the Channel to Port Bolivar, the Contractor shall coordinate its dredging operations with the Texas Department of Transportation Ferry Manager, Mr. William Mallini, who can be reached by telephone at (409) 763-2386. The Option shall be completed before March 15, 2004.

3.4 SECTIONS. For the purpose of acceptance, the dredging work under the Bid Item of the Bidding Schedule is divided into Sections, as follows:

Section No.	From Station	To Station	Length of Section (Feet)	(1)(2) Prescribed Depth (CY)	(2) Allowable Overdepth (CY)	(2) Total Estimated (CY)
SCHEDULE NO. 1						
GULF INTRACOASTAL WATERWAY						
1	1620+00	1670+00	5,000	28,000	19,000	47,000
2	1670+00	1720+00	5,000	26,000	13,000	39,000
3	1720+00	1740+00	2,000	6,000	4,000	10,000
4a	1790+00	1810+00	2,000	2,000	3,000	5,000
4b	1869+42	1890+00	2,058	2,000	3,000	5,000
5	1900+00	1970+00	7,000	29,000	20,000	49,000
6	1970+00	2020+00	5,000	34,000	22,000	56,000
7	2020+00	2070+00	5,000	25,000	23,000	48,000
8	2070+00	2120+00	5,000	33,000	40,000	73,000
10	3140+00	3206+00	6,600	55,000	126,000	181,000
12	3285+09	3320+00	3,491	19,000	37,000	56,000
13	3357+00	3400+00	4,300	18,000	40,000	58,000
14	3400+00	3450+00	5,000	39,000	46,000	85,000
15	3450+00	3500+00	5,000	43,000	46,000	89,000
16	3500+00	3577+48	7,748	23,000	72,000	95,000
SUBTOTAL			70,197	382,000	514,000	896,000
CHANNEL FRONTING HIGHWAY FERRY SLIP						
11	-0+30	10+00	1,030	42,000	42,000	84,000
SUBTOTAL			1,030	42,000	42,000	84,000
OPTION						
GIWW MAIN CHANNEL - ROLLOVER PASS						
9	2120+00	2180+00	6,000	42,000	49,000	91,000
SUBTOTAL			6,000	42,000	49,000	91,000
TOTAL				466,000	605,000	1,071,000
<p>(1) The term "prescribed depth" is synonymous with the term "required depth" and "required dredging prism" used elsewhere in these specifications.</p> <p>(2) Includes anticipated shoaling.</p>						

3.5 PLACEMENT OF EXCAVATED MATERIAL

3.5.1 *General.* The Contractor shall inspect the proposed Placement Areas to ensure that using the Areas for placement operations shall not place it in violation of the applicable Federal, State, or local statutes concerning fish and wildlife. Particular statutes which the Contractor shall consider include, but are not limited to, the Federal Migratory Bird Treaty Act and the Endangered Species Act of 1973. The material excavated shall be transported and deposited in the Placement Areas shown.

Except as otherwise noted, material shall not be deposited or allowed to flow into project channels or into a bayou or stream tributary to the Waterway, or into an existing drainage outlet ditch, canal, water intake, or outlet facility, nor shall materials be allowed to flow onto improved areas including highways and roads in or adjacent to the Placement Areas. In the event a stream, bayou drainage outlet, ditch, canal, water intake or outlet facility becomes shoaled as a result of the dredging or placement operations, the Contractor shall promptly remove these shoals and the material shall be placed in the Placement Areas. Dragging or washing operations to remove the shoals shall not be permitted. Holes dug on the banks for deadmen or anchorage shall be filled. The Contractor shall adequately inspect its placement operations in the Placement Areas daily to reduce the possibility of accidental breaching of levees and drop-outlet structures with resulting spillage of dredged materials outside the Area. If levee failures occur while materials are being pumped into the Placement Areas, dredging operations shall be stopped immediately, and the deposit of material in the Area shall not be resumed until the confining structures have been restored to an approved condition. Materials shall be deposited so that no water is impounded and natural drainage is not obstructed. Once placement operations are completed in a confined area for which the Placement Area is being used, the boards on the drop-outlet structures of that Placement Area shall be removed at a proper rate to allow drainage of the Area. Every effort has been made to give the pertinent details on the location of utility pipelines, structures, and other facilities which may be encountered in performing the levee and drop-outlet structure work. The data shown are substantially correct. However, the Contractor shall investigate existing conditions and satisfy itself as to the existence of additional construction which may interfere with the work herein specified. In confined areas, levee and drop-outlet structure work required shall be completed and accepted prior to placement operations in that Area. Confined areas shall be maintained in operational condition until completion and acceptance of the work in this contract. The NON-REGULATED SPECIAL CONTRACT REQUIREMENTS CLAUSE entitled DAMAGE TO WORK is only applicable to damage of levees, drop outlet structures, and other non-dredging items.

3.5.2 Placement Areas.

3.5.2.1 Placement of Dredged Material. Contractor is to place dredged material from each Section into the appropriate Placement Areas as follows:

Placement Area	Channel Dredging Sections	Starting Station	Ending Station	Tolerance (+/-) ft.
28	1, 2, & 3	1620+00	1740+00	0
34	4a	1790+00	1810+00	0
	4b	1869+42	1890+00	0
	5	1900+00	1970+00	0
35	6, 7, & 8	1970+00	2120+00	250
43	10	3140+00	3206+00	0
45	12	3285+09	3320+00	250
46	13	3357+00	3400+00	250
	14	3400+00	3450+00	250
47	15	3450+00	3500+00	250
49	16	3500+00	3577+48	250
Beach Placement East	9	2120+00	2180+00	0
"A"	11	-0+30	10+00	0

For the confined Placement Areas specified, the Contractor shall maintain a minimum 3-foot freeboard for the perimeter levees at all times during dredging.

3.5.2.2 Open Water Placement Area No. "A". Material from Section 11 shall be placed into Placement Area A. Placement Area A shall be prominently marked by the Contractor with conspicuous buoys or stakes at each corner. Material shall be deposited within the limiting lines of the Placement Area. The dredged material shall be deposited over or beyond the crests of existing dumping grounds wherever they exist. The Contractor shall perform its operations using a method that shall prevent the material from flowing back into the Channel. The discharge end of the pipe shall be held at or near the bottom during placement operations to confine the material within the designated Area. A spreader shall be used at the submerged end of the discharge pipe to distribute the material evenly and reduce scouring. Material deposited beyond the limiting lines of discharge shall be removed by the Contractor at no additional cost to the Government. The point of discharge shall be relocated as often as necessary to prevent a build-up of the excavated material in excess of Elevation +2 feet above Mean Low Tide.

3.5.2.3 Placement Area No. 28 shall be used to deposit the material to be dredged from Sections 1 thru 3. The perimeter levee of Placement Area No. 28 proper shall be repaired as shown in the drawings prior to placing dredged material. Prior to placing dredged material into this Placement Area, the Contractor shall also repair and refurbish the Drop-outlet Structures. The Contractor shall be required to deposit the dredged materials from Sections 1 thru 3 within the limits of the discharge corridor shown. The perimeter levee of Placement Area No. 28 proper shall be maintained to the newly constructed elevations and repaired as necessary for the duration of this contract.

Borrow areas and levee foundations shall be stripped of debris and vegetation prior to construction. The Contractor shall monitor and control the movement of the discharge point to ensure an even build-up of material throughout each discharge point within the limits of the discharge corridor, and to prevent overflowing the levees. Deposition of the remaining dredged material shall be made over and beyond the crest of the existing mounds of previous deposits. The Contractor shall monitor and control the movement of the discharge point in these areas also, to ensure an even build-up of material throughout each discharge point and the remainder of the Placement Area and to prevent overflowing the levees.

3.5.2.4 Placement Area No. 34 shall be used to deposit the material to be dredged from Sections 4a, 4b, and 5. The perimeter levee of Placement Area No. 34 proper shall be constructed as shown in the drawings prior to placement of dredged material. The perimeter levee of Placement Area No. 34 proper shall be maintained to the newly constructed elevations for the duration of this contract. Borrow areas and levee foundations shall be stripped of debris and vegetation prior to construction. The Contractor shall be required to deposit the dredged materials from Sections 4a, 4b, and 5 within the limits of the discharge corridor shown. The Contractor shall monitor and control the movement of the discharge point to ensure an even build-up of material throughout each discharge point within the limits of the discharge corridor, and to prevent overflowing the levees. Deposition of the remaining dredged material shall be made over and beyond the crest of the existing mounds of previous deposits. The Contractor shall monitor and control the movement of the discharge point in these areas also, to ensure an even build-up of material throughout each discharge point and the remainder of the Placement Area and to prevent overflowing the levees.

3.5.2.5 Placement Area No. 35 shall be used to deposit the material to be dredged from Sections 6, 7, and 8. Prior to placing dredged material into this Placement Area, the Contractor shall construct the perimeter levee as shown. The Contractor shall also repair as necessary and refurbish the Drop-outlet Structure. The perimeter levee of Placement Area No. 35 proper shall be maintained to the newly constructed elevations and repaired as necessary for the duration of this contract. Borrow areas and levee foundations shall be stripped of debris and vegetation prior to construction. The Contractor shall be required to deposit the dredged materials from Sections 6, 7, and 8 within the limits of the discharge corridor shown. The Contractor shall monitor and control the movement of the discharge point to ensure an even build-up of material throughout each discharge point within the limits of the discharge corridor, and to prevent overflowing the levees. Placement of dredged materials shall be made over and beyond the crest of the existing mounds of previous deposits. The Contractor shall be required to deposit the dredged materials from Section within the limits of the discharge corridor shown. The Contractor shall monitor and control the movement of the discharge point to ensure an even build-up of material throughout each discharge point within the Placement Area, and to prevent overflowing the levees.

3.5.2.6 Open Water Placement Area No. 43. Material from Section 10 shall be placed into Placement Area 43. Placement Area 43 shall be prominently marked by the Contractor with conspicuous buoys or stakes at each corner. Material shall be deposited within the discharge corridor shown on the drawings. The dredge discharge

pipe shall be pointed in at an angle to the northwest in order to not allow material to flow or settle near the Bolivar Marsh Placement Area. The Contractor shall perform its operations using a method that shall prevent the material from flowing back into the Channel. The discharge end of the pipe shall be held at or near the bottom during placement operations to confine the material within the designated Area. A spreader shall be used at the submerged end of the discharge pipe to distribute the material evenly and reduce scouring. Material deposited beyond the limiting lines of discharge shall be removed by the Contractor at no additional cost to the Government. The point of discharge shall be relocated as often as necessary to prevent a build-up of the excavated material in excess of Elevation +2 feet above Mean Low Tide.

3.5.2.7 Open Water Placement Area No. 45 (Pelican Island Spit). An environmental window is in effect whereby no work or dredge material deposits will be made between the months starting March 15 and August 15 of a given year. Material from Section 12 shall be placed into Placement Area No. 45 during the allowable window. Placement Area 45 shall be prominently marked by the Contractor with conspicuous buoys or stakes at each corner. Material shall be deposited within the discharge corridors shown. Fifty (50) percent of the material from Section 12 shall be placed in Discharge Corridor No. 1., 25 percent of the material from Section 12 shall be placed in Discharge Corridor No. 2, and the remaining 25 percent of the material from Section 12 shall be placed in Discharge Corridor No. 3. The dredge discharge pipe shall be pointed in at an angle to the south, southeast just over the existing mounds on the northwest shore. The Contractor shall perform its operations using a method that shall prevent the material from flowing back into the Channel. The discharge end of the pipe shall be held at or near the bottom during placement operations to confine the material within the designated Area. A spreader shall be used at the submerged end of the discharge pipe to distribute the material evenly and reduce scouring. The point of discharge shall be relocated as often as necessary to prevent a build-up of the excavated material in excess of Elevation +2 feet above Mean Low Tide.

3.5.2.8 Open Water Placement Area Nos. 46, 47, and 49. Material from Section 14 shall be placed into Placement Area No. 46. Material from Section 15 shall be placed into Placement Area No. 47. Material from Section 16 shall be placed into Placement Area No. 49. Placement Area Nos. 46, 47, and 49 shall be prominently marked by the Contractor with conspicuous buoys or stakes at each corner. Material shall be deposited within the discharge corridor shown. The Contractor shall perform its operations using a method that shall prevent the material from flowing back into the Channel. The discharge end of the pipe shall be held at or near the bottom during placement operations to confine the material within the designated Area. A spreader shall be used at the submerged end of the discharge pipe to distribute the material evenly and reduce scouring. Material deposited beyond the limiting lines of discharge shall be removed by the Contractor at no additional cost to the Government. The point of discharge shall be relocated as often as necessary to prevent a build-up of the excavated material in excess of Elevation +2 feet above Mean Low Tide.

3.5.2.9 Rollover East Beach Placement Area (Option) shall be used to deposit the material to be dredged from Section 9. Placement of the material shall be with a spreader at end of the discharge pipe. Deposition of material will begin 1,000 feet east of

Rollover Pass and the discharge point will be relocated at distance 1,300 feet, 1,900 feet, 2,500 feet and 3,000 feet from Rollover Pass. As much dredged material as possible shall be placed and retained onto the beach area in a 2,000-foot reach beginning at a point 1000 feet east of the east bank of the Rollover Pass Channel into the Gulf of Mexico. A survey baseline will established by the contractor, in accordance with the requirement of the Subparagraph: Surveys, below, and kept prominently marked with conspicuous stakes and maintained throughout the completion of dredging operations in Section 9 (Option). The Contractor shall locate and prominently mark four discharge points along the survey baseline established by the Contractor, at distances of 1,000, 1,300, 2,500, and 3,000 feet from Rollover Pass East Bulkhead. After completion of the initial beach profile cross sections, and upon commencement of dredging Section 9, the Contractor shall be required to discharge the before-dredging quantities proportionately between the four (4) discharge points marked on the survey baseline, proceeding from west to east until dredging of Section 9 is completed. The dredge discharge points shall have baffles at the end of each pipe expressly to reduce the exit velocities at the point of discharge so as to minimize gulying and beach erosion and to retain the fill on the beach. The dredge discharge pipeline shall be laid so that the end of the pipe (exit points) are centered at the marked discharge points described above. The Contractor shall not permit dredged fill or discharge wastewater to flow landward of the beach or water to pond between the fill and upland. Groins, bulkheads, revetments, seawater pipe structures, and other structures with the fill section shall be protected by the Contractor to prevent damage thereof by the Contractor's operations. Upon completion of the filling operations, the fill shall be graded and dressed so as to eliminate any undrained pockets and abrupt humps and depressions in the beach fill surfaces. The Contractor shall ensure that a competent employee is stationed at the pipeline exit point and is physically on-site and present at all times during dredge discharge operations. The employee shall maintain radio communication between the dredge and the dredge disposal operation on the beach and shall have the authority to cease dredging operations in the event of an emergency situation regarding damage to the exiting beach or public safety situations. The Contractor will exclude the public from the work areas in the immediate vicinity of its dredging, transporting, and disposal operations. The Contactor shall prevent public access to the discharge end of the pipeline by the use of barriers. The Contractor shall erect, maintain, and move as necessary, a restrict barrier around the exit points of the hydraulic pipeline used for placement of the dredged materials onto the beach. Enforcement of the public safety in the construction area shall be the Contractor's responsibility. The enforcement shall be coordinated with local enforcement agencies, and will be subject to approval.

3.5.3 Surveys for Beach Placement Area (Rollover Pass - Option). The Contractor will be required to furnish "before and after" dredging beach profile cross sections to the Government, upon completion of dredging operations within Section 9. The Contractor shall establish a 3,000-foot baseline and a bench mark for vertical control, on which the profiles will based. Vertical control may be established from tide staff readings used by the dredge. The baseline shall follow a line extending from the bulkhead on the east bank of Rollover Pass, to a point 3,000 feet east on the open beach. The baseline shall be essentially perpendicular to the Rollover Pass Channel centerline, and shall be placed parallel to, and no closer than, 50 feet from the vegetation line along Rollover Beach. Beach profile cross sections shall be taken prior

to the start of any disposal operations on Rollover Beach. A total eight (8) beach profile cross sections, located every 300 feet along the baseline, starting at a distance of 1,000 feet east of the bulkhead, shall be taken. The beach profile cross sections shall be 500 feet in length and shall extend 50 feet shoreward of the baseline, and 450 feet seaward. Point elevations shall be taken at all surface inflections or a distance of 20 feet from the previous point, whichever is less. Two (2) sets of beach profiles will be taken at the same locations on the baseline, immediately prior to and after dredge disposal operations on Rollover Beach. The completed survey data, along with plotted cross sections, drawn to scale that will readily enable a comparison of before and after surveys of the beach profiles, shall be furnished the Government within 10 working days after completion of dredging operations in Section 9. The Contractor shall locate and prominently mark the four (4) "discharge points" along the survey baseline established by the Contractor at distances of 1,000, 1,300, 1,900, 2,500 and 3,000 feet from the Rollover Pass East Bulkhead. Site conditions that can prevent the Contractor from performing the surveys as specified herein shall be immediately reported to the Northern Area Office.

3.5.4 Pipelines.

3.5.4.1 Pipeline Right-of-way. The dredge pipeline routes to the Placement Areas shall follow closely the locations shown. Detail right-of-way drawings showing the location of the pipeline routes with respect to property lines are available for inspection at the Northern Area Office, Jadwin Building, 2000 Fort Point Road, Galveston, Texas 77550-1229.

3.5.4.2 Location Details. Every effort has been made to give pertinent details on the locations of utility pipelines and other facilities that may be encountered in trenching or jacking operations. The data shown are substantially correct. However, the Contractor shall investigate existing conditions and satisfy itself as to the existence of additional construction that may interfere with pipeline laying herein specified.

3.5.4.3 Submerged Pipeline Sections. If the Contractor elects to use a submerged section in the dredge discharge pipeline for crossing a navigable channel it may do so without the formality of obtaining a Department of the Army permit for work on structures in navigable waters. However, three (3) copies of detailed plans of the submerged section shall be submitted and approved prior to use of the submerged section. The plans shall indicate clearly the width and depth of the navigation opening and the method used to mark it by day and by night for the safety of navigation. The minimum bottom width of the submerged section shall not be less than 200 feet wide for channels whose authorized width is greater than 200 feet. The minimum bottom width of the submerged section for channels whose authorized width is less than 200 feet shall be the width of the authorized Federal Channel. The highest point on the pipe or ball connection occurring across the bottom width of submerged section shall not be higher than 16 feet below Mean Low Tide (MLT) in the Gulf Intracoastal Waterway project and 22 feet below MLT in the Rollover Pass at Port Bolivar project. Lighted buoys, meeting the requirements of U.S. Coast Guard Regulation 33 C.F.R. 62.25, shall be provided by the Contractor to mark the navigation opening. A red buoy exhibiting a quick flashing red light shall be used to mark the right side of the opening

and a black buoy exhibiting a quick flashing green light shall be used to mark the left side of the opening. The frequency of the flashes shall be not less than 60 per minute. "Right side" and "left side" of the opening shall be in conformance with the lateral system of buoyage established by the U.S. Coast Guard. Requirements for the lighted buoys and description of the lateral system will be found in the U.S. Coast Guard publication CG 208 entitled "Aids to Navigation." Lights to be displayed on pipelines shall be in accordance with U.S. Coast Guard Regulation 33 C.F.R. 80.23.

3.5.5 Unauthorized Placement of Material.

3.5.5.1 Misplaced Excavated Material. Excavated material that is deposited other than in places designated or approved will not be paid for and the Contractor may be required to remove the misplaced excavated material and deposit it where directed without cost to the Government.

3.5.5.2 Debris Disposal. During the progress of the work, the Contractor shall not deposit worn out discharge pipe, wire rope, scrap metal, timbers, other rubbish or obstructive material in the Placement Areas, except as specified herein, or along the banks of the navigable waters. This material, together with scrap, rope, wire cable, piles, pipe, or other obstructive material which may be encountered during the dredging operations, shall be disposed by the Contractor at approved locations.

3.5.6 Easements. Permits authorizing the laying of shore pipe, and for placement of dredged material in the Placement Areas, are on file and available for examination in the office of the U. S. Army Corps of Engineers, Northern Area Office, Jadwin Building, 2000 Fort Point Road, Galveston, Texas. The instruments authorizing the laying of shore pipelines may contain certain restrictions relative to specific route, location, and general use of the land. These instruments form a part of these specifications and the Contractor shall strictly comply with the terms thereof.

3.5.7 Preservation of Public and Private Property.

3.5.7.1 Damages. Fences, roads, ditches, private or public grounds, and other structures or improvements damaged as a result of the Contractor's operations herein specified shall be repaired or rebuilt by the Contractor at its expense. The areas used by the Contractor in laying and maintaining pipelines shall be restored to the same or as good a condition as existed prior to commencement of the work. Upon completion of the work, the ends of culverts shall be fully closed with wooden bulkheads and trenches and bank cuts shall be backfilled to original ground level.

3.5.7.2 Accountability and Restoration. The Contractor shall preserve and protect the existing informational and directional signs, camp facilities, water wells and tanks, station markers, mile markers, and mooring piles which have been established along either bank of the Waterway within the reaches of the dredging operations covered herein. The Contractor shall be accountable for and shall be required to replace or restore at its expense the signs, camp facilities, water wells and tanks, markers, and mooring piles damaged or destroyed as a result of dredging operations herein specified.

3.5.8 Alternate Placement Area(s) Proposed by Contractor after Award of Contract.

3.5.8.1 Alternate Placement Area(s). If, after award of the contract, a placement area(s) other than that specified herein is proposed, its acceptance will be subject to approval. The Contractor shall furnish written permission from the owners for the use of the substitute placement area(s) and written permission from the owners of the properties involved in obtaining access to the substitute placement area(s). The Contractor shall coordinate the use of the substitute placement area(s) with Federal, State, and local fish and wildlife, conservation and pollution control agencies and shall submit, with its proposal, documentation that demonstrates compliance with the applicable laws and regulations pertinent to designation and coordination of dredged material placement area(s). The Galveston District shall be consulted for specific requirements. Expenses incurred in connection with providing and making available another placement area(s) shall be borne by the Contractor. Materials deposited thereon and operations in connection therewith shall be at the Contractor's risk.

3.5.8.2 Data Submittal. The award of the modification will be subject to the approval of the proposed Contractor-furnished placement area(s) and unless the foregoing required data are furnished with the Contractor's request, the modification for the use of the proposed substitute placement area(s) will not be considered.

3.6 OVERDEPTH, SIDE, AND END SLOPES.

3.6.1. Overdepth. To cover inaccuracies of the dredging process, material actually removed from within the specific areas to be dredged to depths as specified in the Subparagraph: Table of Allowable Overdepth, Side and End Slopes below, will be estimated and paid for at contract price or prices.

3.6.2. Side and End Slopes. Material actually removed from within approved limits, to provide for final side and end slopes as specified in the Paragraph: OVERDEPTH, SIDE AND END SLOPES above, but not in excess of the amounts originally above these limiting side and end slopes will be estimated and paid for, whether dredged in original position or by dredging space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. In computing the limiting amount of side and end slopes dredging, net dimensions, without allowance for overdepth, will be used.

3.6.3 Excessive Dredging. Material taken from beyond the limits as extended in the Subparagraphs: Overdepth, and Side and End Slopes, above, will be deducted from the total amount dredged as excessive overdepth dredging or excessive side or end slope dredging, for which payment will not be made. Nothing herein shall be construed to prevent payment for the removal of shoals performed in accordance with the applicable provisions of either the SPECIFIC PROJECT REQUIREMENTS CLAUSES entitled FINAL EXAMINATION AND ACCEPTANCE or SHOALING.

3.6.4 Table of Allowable Overdepth, Side and End Slopes.

From Station	To Station	Allowable Overdepth (Feet Below Required Depth)	Final				Above Plane (Feet Below MLT)
			Side Slope		End Slope		
			Grade		Grade		
			Vertical	Horizontal	Vertical	Horizontal	
GIWW - Main Channel - Schedule No. 1							
1620+00	---	---	---	---	1	2	16
1620+00	1740+00	1	1	2	---	---	16
1740+00	---	---	---	---	1	2	16
1790+00	---	---	---	---	1	2	16
1790+00	1810+00	1	1	2	---	---	16
1810+00	---	---	---	---	1	2	16
1869+42	---	---					16
1869+42	1890+00	1	1	2	---	---	16
1890+00	---	---	---	---	1	2	16
1900+00	---	---	---	---	1	2	16
1900+00	2080+00	1	1	2	---	---	16
2080+00	2120+00	2	1	5	---	---	16
2120+00	---	---	---	---	1	5	16
3140+00	---	---	---	---	1	5	16
3140+00	3206+00	2	1	5	---	---	16
3206+00	---	---	---	---	1	5	16
3285+09	---	---	---	---	1	5	16
3285+09	3320+00	2	1	5	---	---	16
3320+00	---	---	---	---	1	5	16
3357+00	---	---	---	---	1	5	16
3357+00	3577+48	2	1	5	---	---	16
3577+48	---	---	---	---	1	5	16
Channel Fronting Highway Ferry Slip - Schedule No. 1							
-0+30	---	---	---	---	1	2.5	22
-0+30	10+00	2	1	2.5	---	---	22
10+00	---	---	---	---	1	2.5	22
GIWW - Main Channel - Rollover Pass - Option							
2120+00	---	---	---	---	1	5	16
2120+00	2170+00	2	1	5	---	---	16
2170+00	2180+00	1	1	2	---	---	16
2180+00	---	---	---	---	1	2	16

3.7 HOUSTON-GALVESTON VESSEL TRAFFIC SERVICE AREA. The Contractor shall comply with the following requirements while operating within the Houston-Galveston Vessel Traffic Service (VTS) Area.

3.7.1 General. When a dredge or floating plant is to be operated within the Houston-Galveston VTS Area the master shall, at least 30 minutes prior to commencing operations, furnish to the Vessel Traffic Center (VTC):

- (1) Location of intended operation.
- (2) Description of intended operation, including channel obstructions.
- (3) Configuration of pipelines, if crossing the channel.
- (4) Termination point of pipelines, if crossing the channel.
- (5) Time required to re-open channel or move for vessel traffic.
- (6) Operating impairments, including VHF-FM radios.

3.7.2 Report Changes. The master of a dredge or floating plant shall immediately notify the VTC of changes to the above report and at the completion of operations.

3.7.3 Vessel Traffic Service Location. The Houston-Galveston VTS Area consists of the navigable channels between the Galveston Entrance Channel buoy 1 and the Houston Turning Basin, Galveston Channel, Texas City Channel, Bayport Channel, and the Gulf Intracoastal Waterway from Galveston to the Freeport Cutoff from mile 346 to mile 352.

3.7.4 Communications with the VTC, call sign "HOUSTON TRAFFIC," may be accomplished via VHF-FM Channel 12. The VTC guards both Channel 12 and Channel 13 on a 24 hour basis.

3.7.5 Operations. The master of a dredge or floating plant shall be aware of and comply with the provisions of the Order Relating to Lightering and Bunkering Operations and Multiple Vessel Moorings and will notify the Houston-Galveston VTS when refueling operations are to be conducted.

3.8 REPORTING REQUIREMENTS. The Contractor shall prepare and maintain a daily Dredging Report using the Galveston District's automated Contractor's Daily Report database. This database replaces SWG Form 89. The program will be provided to the Contractor using 3.5-inch diskettes or compact disks at the Pre-Construction Conference. Instructions and demonstration on the installation and use of this software will also be provided at the Pre-Construction Conference. The Contractor shall need an IBM compatible with a minimum of a processor with 16 MB of RAM running Microsoft Windows 3.11 or Microsoft Windows

95. Hard drive space needed to install the program and accommodate the data shall be approximately 15 MB. Printing shall be best accomplished with either a LaserJet or Inkjet Printer on 8.5- by 11-inch paper in the portrait mode. Modem settings shall be automatically handled at the point of transmission but the Contractor is required to know what serial communications (COM) port it used for the modem (for example: COM1, COM2, or COM3). A telephone number for transmitting the data by modem to the District server will also be provided at the Pre-Construction Conference. The Contractor shall however have the option of submitting the data either by diskette or by modem. If the Contractor elects to submit the data by modem, the data shall be submitted on a daily basis. If the Contractor elects to submit the reports by diskette, the data shall still be submitted on a daily basis when possible. Coordination on delays shall be made with the Area Engineer or its designated representative. The Contractor shall be required to print and sign reports and submit the original hard copies to the Area Engineer to verify authentication. Monthly reports will be generated by the District Office using the reporting features of the database. If technical problems arise, the point-of-contact for this matter will be Tim Baumer at (409) 766-3874.

3.9 DREDGE MONITORING REQUIREMENTS. The dredge or excavation plant utilized in this contract shall be instrumented to monitor where excavation takes place and describe the excavation sequence as specified herein. The data produced by this instrumentation shall be collected by automated (computer-digitized) means and stored on a 3-1/2 inch disk or compact disk in ASCII format. The Contractor's initial submittal shall include written instructions to explain the data format used. Data shall be tied to the date and real time of day. Each disk can be used to its maximum storage space up to 1 week's data, if capable. The original disks shall be submitted as soon as full or at the end of each week's collection. Also, each week's data collection shall be presented in a graphic form, including plotting, identifying, and indexing to show the work area (excavation and placement), as appropriate, of each day.

3.9.1 Hydraulic Pipeline Dredges. The following elements shall be monitored as a minimum:

- (1) Dredge I.D. designation.
- (2) Cutterhead location in the X, Y, and Z directions at least every 1/2-minute interval, tied to real time of day and date.

3.9.2 Dredge Plant Instrumentation. The Dredge Plant Instrumentation is a part of the dredge plant and shall be functional at all times. If failure of any part thereof occurs, the Contractor shall repair the failed part within the next 36 hours restoring full operations. If the system is not fully functional within this period, the particular plant affected will be considered non-responsive to this contract requirement and shall either be replaced or a redundancy part added to render the

plant fully operational to include the monitored data, all at no additional increased price or time to this contract.

-- o O o --