



1. The specifications and drawings for Invitation No. DACW64-03-B-0006, Dredging Middle Reach, Neches River Channel in Jefferson and Orange Counties, Texas, Sabine-Neches Waterway, Texas, advertised 20 December 2002 and for which bids were rescheduled to be opened 11 February 2003, are hereby modified as follows:

**QUESTIONS FROM CONTRACTORS AND ANSWERS BY THE GALVESTON DISTRICT TEAM.**

QUESTION 1: Bid Schedule, PG. 00010-3, "Total Schedule No.1 and Options Nos. 1 and 2." Options 1 and 2 both contain levees, drop-outlets and ditches-P.A. No. 23 (Items 0005 and 0009), Levees, drop-outlets and ditches-P.A. 18 (Items 0006 and 0010) all of the dredging Sects. 1-10 (Items 0007, 0013 and 0014) and pipelines (Items 0008 and 0015). Therefore since both options contain these same items they cannot be added together.

ANSWER 1: This has been clarified below in this Amendment No. 0007.

QUESTION 2: Page 02482-9, Para. 3.3 Order of Work: P.A. 18 and commencing dredging in Sect. No. 1 are in the two options and not in scheduled No. 1. Order of work should contain P.A. No. 25B and dredging Sects. 11-13 and 11A.

ANSWER 2: This has been clarified below in this Amendment No. 0007.

QUESTION 3: Page 02482-10 paragraphs 3.4.2.1 and 3.4.2.2: The discharge corridors are not long enough compared to the length of channel reaches to comply with moving the end of discharge 1000 ft. for every 2500 ft. of dredge advance.

ANSWER 3: This has been clarified below in this Amendment No. 0007.

QUESTION 4: Reference Placement Area 18 on the drawing page 28 of 44 in Placement Area 18 there is a Discharge corridor shown in the rear of the area. There is no reference to it in the specifications.

ANSWER 4: This has been clarified with this Amendment No.0007.

QUESTION 5: Reference Placement Area 23 in the specifications paragraph 3.4.2.2 Placement Area No. 23, line 3 beginning with "The Contractor shall conduct discharge operations so that only the material removed from Sections No. 7 through 10 are deposited within the confines of the Discharge Corridor. The Contractor shall conduct discharge operations so that every 2,500 ft of dredge advance the discharge point will be moved 1,000 ft from the previous discharge point along the Discharge Corridor." On drawing 34 of 44 the Discharge Corridor is shown to be 2,500 ft. long. There is approximately 20,000 ft of channel to be evenly discharged into this corridor. Rough calculations show that to comply with the specifications the discharge point must be moved 8 times which equals approximately 8,000 ft. This requirement of the specifications cannot be met.

ANSWER 5: This has been clarified with this Amendment No.0007.

QUESTION 6: Reference, 02232-1, 3.1: Debris consisting of piling, timbers, logs, pipes, concrete rubble, stumps, driftwood, brush, grout bags, rebar, and other objectionable materials shall be cleared from the areas. Are trees considered objectionable materials under this specification? If so, then does paragraph 3.2 apply to trees?

ANSWER 6: This has been clarified below in this Amendment No. 0007.

QUESTION 7: Do trees need to be disposed of off site? If not, which specification applies to clearing of trees? Does the removal of trees come under specification 02319?

ANSWER 7: This has been clarified below in this Amendment No. 0007.

(a) Specifications.

(1) STANDARD FORM 1442, Item 10 - Delete the second sentence and substitute the following: "Pre-Award Information due at Bid Opening." Also delete the third sentence and substitute the following: "Performance Bonds due within 2 days of award."

(2) BIDDING SCHEDULE Pages 00010-1 Through 00010-4, Issued with Amendment No. 0002. - The enclosed BIDDING SCHEDULE Pages 00010-1 through 00010-3 supersedes that issued by Amendment No. 0002 to this Invitation.

(3) SECTION 00700-Page 96 of 96, FAR 217-7 OPTION FOR INCREASED QUANTITY – SEPARATELY PRICED LINE ITEM (MAR 1999) (Issued by Amendment No. 0002, Item (a) (1)). - Delete this Clause and substitute the following therefor:

"FAR 217-7 OPTION FOR INCREASED QUANTITY - SEPARATELY PRICED LINE ITEM (MAR 1999). The Government may require the delivery of the numbered line items, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer will exercise the Option by written notice to the contractor at the time of award. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree."

(4) Page 01100-1, Paragraph 1. - Delete the first sentence and substitute the following: "The Contractor will be required to commence dredging under this contract within 5 calendar days after the date of receipt of Notice to Proceed, to prosecute said work diligently and to complete the entire work ready for use not later than 275 calendar days after date of receipt of Notice to Proceed."

(5) Page 02232-1, Subparagraph 1.3, (Issued by Amendment No.0002, Item (a) (3)). Delete this Paragraph and substitute the following therefor:

**“1.3 PAYMENT** for the work specified herein and the costs in connection therewith shall be included in the contract lump sum price for “Levees, Drop-outlets, and Ditches-P.A. Nos. 23, and 25B,” “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15’ Elev.” or “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 13’ Elev.” as applicable.”

(6) Page 02232-1, Paragraphs 3.1 and 3.2 - Delete these Paragraphs and substitute the following therefor:

**"3.1 CLEARING AND REMOVAL OF DEBRIS.** Trees, brush, and debris consisting of piling, timbers, logs, pipes, concrete rubble, stumps, driftwood, grout bags, rebar and other objectionable materials shall be cleared from borrow areas and levee foundation areas.

**"3.2 DISPOSITION OF CLEARED MATERIALS.** Materials obtained from clearing and removal of debris shall be disposed by burying the material within an abandoned portion of the Placement Area as directed."

(7) Page 02319-1, Paragraph 1.4, (Issued by Amendment No. 0002, Item (a) (4)).  
- Delete this Paragraph in its entirety and substitute the following therefor:

**“1.4 PAYMENT.**

"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. 23, and 25B,” “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15’ Elev.” or “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 13’ Elev.” as applicable.

"1.4.2 Borrow Area Excavation for Placement Areas Nos. 18 and 23. Payment for borrow area excavation used as fill and backfill material, as shown will be included in the contract lump sum price for “Levees, Drop-outlets, and Ditches-P.A. Nos. 23, and 25B,” “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15’ Elev.” or “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 13’ Elev.” as applicable.

"1.4.3 Excavation of Interior Side Borrow Areas. Payment for borrow area excavation to obtain material for construction of the levees, as shown, will be included in the contract lump sum price for “Levees, Drop-outlets, and Ditches-P.A. Nos. 23, and 25B,” “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15’ Elev.” or “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 13’ Elev.” as applicable.

"1.4.4 Levee Degrading. No separate payment will be made for levee degrading or for stockpiling or placement of the excavated materials. The cost in connection therewith will be included in the contract lump sum price for “Levees, Drop-outlets, and Ditches-P.A. Nos. 23, and 25B,” “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15’ Elev.” or “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 13’ Elev.” as applicable.”

(8) Page 02323-1, Subparagraph 1.6.2 (Added by Amendment No. 0002, Item (a) (5)) – In the third line, change, “BUS Levees” to “Beneficial Use Site-Levees.”

(9) Page 02329-2, Subparagraphs 1.6.3 and 1.6.4, (Issued with Amendment No. 0002, Item (a) (6)). - Delete these Subparagraphs and substitute the following therefor:

“1.6.3 Uncompacted Fill for Levee Construction. Payment for excavation and placement for the uncompacted levee fill construction will be included in the contract lump sum price for “Levees, Drop-outlets, and Ditches-P.A. Nos. 23, and 25B,” “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15’ Elev.” or “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 13’ Elev.” as applicable.”

1.6.4 Stripping and Clearing of existing levees, foundation areas and borrow areas and placement of stripped material and the costs in connection therewith will be included in the contract lump sum price for “Levees, Drop-outlets, and Ditches-P.A. Nos. 23, and 25B,” “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15’ Elev.” or “Levees, Drop-outlets, and Ditches-P.A. No. 18 at 13’ Elev.” as applicable.”

(10) Page 02334-1, Subparagraph 1.3.1 (Added by Amendment No. 0002, Item (a) (7)). - In the second line, change “BUS Levees” to “Beneficial Use Site-Levees.”

(11) Page 02334-1, Subparagraph 1.3.3 - Delete this Subparagraph and substitute the following therefore:

“1.3.3 Maintenance of Levees. The cost of maintaining levees, after acceptance of constructed levees, as specified in the SECTION entitled DREDGING, shall be included in the Option contract unit price for “Dredging (Sections 5-7).”

(12) SECTION 02482 - DREDGING – The enclosed SECTION 02482 entitled DREDGING supersedes that issued and amended by this Invitation.

(13) Page 02700-1, Paragraph 1.1 - In the third line, change “Structures” to “Structure.”

(14) Page 02700-2, Subparagraph 1.3.1 - Delete this Subparagraph and any amended changes and substitute the following:

“1.3.1 Existing Drop-outlet Structure in Placement Area No. 23 shall be repaired and raised to an elevation of 2 feet above the required levee repair height. The repair to the existing structure shall include sandblasting the entire structure, painting and providing new weir boards.”

(15) Page 02700-2, Subparagraph 1.3.3, (Issued with Amendment No. 0003, Item (a) (4)). - At the end of this Subparagraph, delete the period and add the following: “and remove the existing handrail and install a new handrail as shown.”

(b) Drawings.

(1) Sheet 1 of 44 Through 44 of 44. - These existing Sheets 1 of 44 through 44 of 44 shall manually be changed to read "Sheets 1 of 54 through 54 of 54.

(2) Sheet 28 of 54 - Delete the DISCHARGE CORRIDOR shown at the southern end of the Placement Area.

(3) Sheets 29 of 54 Through 32 of 54 (Issued by Amendment No. 0002, Item (b) (4)). - Delete the NOTE issued with Amendment No. 0002 and substitute the following:

"NOTE: IF THE OPTION IS EXECUTED THE SHOWN LEVEE ELEVATION OF 15' SHALL BE REDUCED TO AN ELEVATION OF 13'."

(4) Sheet 44 of 54. - In the TYPICAL DREDGE MATERIAL MOUND SECTION, delete the Width Table and substitute the following:

<b>DM NO.</b>	<b>DM WIDTH (VARIES)</b>
1	150'-250'
2	50'-100'
3	100'-200'
4	100'-200'

(5) Sheets 45 of 54 through 54 of 54. - The enclosed new sheets 45 of 54 through 54 of 54 shall be added to and become a part of this Invitation.

Encls:

1. Bid Sched, Pgs 00010-1 thru 00010-3
2. Section 02482
3. Shts 45 thru 54

**SABINE-NECHES WATERWAY,  
TEXAS, MIDDLE REACH, NECHES  
RIVER CHANNEL IN JEFFERSON  
AND ORANGE COUNTIES, TEXAS,  
DREDGING**

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

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b><u>SCHEDULE NO. 1</u></b>					
0001	Levees, Drop-outlets, and Ditches-P.A. Nos. 23, and 25B	1	L.S.	\$ _____	\$ _____
0002	Levees, Drop-outlets, and Ditches-P.A. No. 18 at 15' Elev.	1	L.S.	\$ _____	\$ _____
0003	Mobilization and Demobilization	1	L.S.	\$ _____	\$ _____
0004	Dredging (Sections 1-4, 8-17, 11A and 16A)	2,479,500	C.Y.	\$ _____	\$ _____
0005	Dredging (Sections 5-7)	628,000	C.Y.	\$ _____	\$ _____
0006	Pipelines (Sections 1-4, 8-17, 11A and 16A)	1	L.S.	\$ _____	\$ _____
0007	Pipelines (Sections 5-7)	1	L.S.	\$ _____	\$ _____
<b>TOTAL SCHEDULE NO. 1</b>					\$ _____

00010-1

(To Accompany Amendment No. 0007 to Invitation No. DACW64-030B-0006)

**INVITATION NO. DACW64-03-B-0006**

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

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
<b><u>OPTION</u></b>					
0008	Levees, Drop-outlets, and Ditches-P.A. No. 18-at 13' Elev.	1	L.S.	\$ _____	\$ _____
0009	Training Berms	1	L.S.	\$ _____	\$ _____
0010	Beneficial Use Site Levees	1	L.S.	\$ _____	\$ _____
0011	Dredging (Sections 5-7)	628,000	C.Y.	\$ _____	\$ _____
0012	Pipelines (Sections 5-7)	1	L.S.	\$ _____	\$ _____
<b>TOTAL OPTION</b>					\$ _____
<b>TOTAL SCHEDULE NO. 1 AND OPTION</b>					\$ _____

**BID ITEMS 008, 0011, AND 0012 SHALL REFLECT ONLY AN INCREASE OR DECREASE TO A BID ITEMS 0002, 0005, AND 0007 RESPECTIVELY. BID ITEMS 0009 AND 0010 REFLECT ADDITIONAL WORK IF THE OPTION IS EXECUTED.**

**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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**SECTION 02482 - DREDGING****PART 1 - GENERAL****1.1 SCOPE OF WORK.**

1.1.1 Work to be Done. 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 Middle Reach, Neches River, Port Arthur Canal, Junction Area and Turning Basins in Jefferson and Orange Counties, Texas, as follows:

Required Depth Below MLT (Feet)	Required Width (Feet)	From Station	To Station	Distance Between Stations (Feet)
<b>Middle Reach Neches River</b>				
42	400	150+00	200+00	5,000
42	400-1,000	200+00	206+51	651
42	1,000	206+51	213+51	700
42	400	213+51	340+00	12,649
42	400-600	340+00	394+20	5,420
42	600	394+20	440+00	4,580
42	600-400	440+00	466+51	2,651
42	400	466+51	492+50	2,599
42	400-1400	492+50	497+50	500
42	1400	497+50	505+00	750
42	400	550+00	690+20	14,020
42	400-1220	690+20	700+65	1,045
42	1220-700	700+65	705+50	485
42	400	705+50	850+00	14,450
		<b>SUBTOTAL</b>		<b>65,500</b>
<b>Channel "C" - Middle Reach Neches River Channel</b>				
38	350	714+20	726+75.7	1,255.7
		<b>SUBTOTAL</b>		<b>1,255.7</b>

Required Depth Below MLT (Feet)	Required Width (Feet)	From Station	To Station	Distance Between Stations (Feet)
<b>Port Arthur Canal</b>				
42	515-1,788	290+00	326+24.5*	3,624.5
<b>Sabine Neches Canal</b>				
42	1060-400	0+00	40+00	4,000
<b>Entrance Channel To Port Arthur Turning Basins</b>				
42	282-736	0+00	16+00	1,600
<b>Port Arthur East Turning Basin</b>				
42	347-370	0+00	17+65	1,765
<b>Port Arthur West Turning Basin and Connecting Channel</b>				
42	700-250	16+00	61+30**	4,530
		<b>SUBTOTAL</b>		<b>15,519.5</b>
		<b>TOTAL</b>		<b>82,275.2</b>
*Sta. 326+24.59(Port Arthur Canal)= Sta. 0+00(Sabine Neches Canal)				
**Sta. 22+10.2(Backward)= Sta. 17+97.5 (Forward)(Port Arthur West Turning Basin)				

**1.2 LOCATION.** The 12.6 miles Middle Reach of the Neches River is located approximately 3 miles northwest of Port Arthur, Texas and approximately 8 miles southeast of Beaumont, Texas. The work for the Port Arthur Canal, Junction Area and Turning Basins is located near Port Arthur, 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 will be required to conduct the work using a method that will 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 as far as may be necessary 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 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, Port Arthur Station in writing, at least 2 days prior to commencement of dredging operations, the location or locations at which a dredge or dredges will 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 UTILITIES ACROSS THE LIMITS OF DREDGING.** The following overhead lines, and submerged lines cross the areas to be dredged:

Approximate Station	Permit No.	Description	Owner
184+65		One 4-inch pipeline	Ameripol Sympol
184+65	5569	Two 10-inch pipelines	Big Three Pipeline Co.
184+65	5569	One 8-inch pipeline	Big Three Pipeline Co.
185+65		One 8-inch pipeline Two 4-inch pipelines	Houston Contracting Co.
192+00		One Aerial Transmission Line	Gulf States Utilities
192+66	7089	One 10-inch pipeline	UCAR Pipeline Co.
285+00		One 4-inch pipeline	
286+00		One 4-inch pipeline	
287+30		One 10-inch pipeline	
287+37	8430	One 12-inch pipeline	Explorer Pipeline Co.
288+46		One 16-inch pipeline One 20-inch pipeline	United Texas Trans.
291+26	5110	One 6-inch pipeline One 24-inch pipeline One 26-inch pipeline	EXXON Gas System Inc.
291+26		One 8-inch pipeline	EXXON Pipeline Co.
291+26		One 8-inch pipeline	Dupont

Approximate Station (Cont;d)	Permit No	Description	Owner
292+12	9106	One 8-inch pipeline	Union Texas Petroleum
292+12	9105	Two 8-inch pipelines	Humble Pipeline
293+52		One 18-inch pipeline	Sabine Pipeline Co.
294+02		One 22-inch pipeline	Texas Pipeline Co.
294+24		One 16-inch pipeline	Sabine Pipeline Co.
294+56	7648	One 8-inch pipeline	Texaco, Inc.
294+61	7668	One 10-inch pipeline	Bayou Pipeline Co.
294+76	7606	One 6-inch pipeline	Texas Pipeline Co.
298+00		One 22-inch pipeline	
299+00		One 6-inch pipeline	
323+84		One 12-inch pipeline	Big 3 Industrial Gas. Inc.
348+06		One 16-inch pipeline	United Gas Corp.
454+00		One 10-inch pipeline (Abandoned)	Lion Oil Co.
454+00		One 8-inch pipeline (Abandoned)	Koch Oil Co.
455+00		One 10-inch pipeline	One 8-inch pipeline
455+00		One 8-inch pipeline	Koch Oil Co.
456+42		One 8-inch pipeline, One 10-inch pipeline	SP Eastern Pipeline Co.
480+50		One 6-inch pipeline	Sunoco Terminals
481+50		One 42-inch pipeline	Dept. of Energy
482+86		One 30-inch pipeline	Texoma Pipeline Co.
484+86	12885	One 6-inch pipeline	Sun Pipeline Co.
544+68	5591	One 40-inch pipeline	Colonial Pipeline Co.
545+63	5591	One 36-inch pipeline	Colonial Pipeline Co.
546+61	4652	One Aerial Transmission Line	Gulf States Utilities Co.
547+07		Two 8-inch pipelines	Enron Products Pipeline Co.
548+61	17066	Two 6-inch pipelines	Conoco
659+50	6653	One 8-inch pipeline	Exxon Pipeline Co.
661+83		One 8-inch pipeline	E. I. Dupont
661+83	12304	One 8-inch pipeline, Two 6-inch pipelines	E.I. Dupont
661+83		Two 8-inch pipelines, Two 6-inch pipelines	E.I. Dupont

Approximate Station (Cont;d)	Permit No	Description	Owner
661+83		Two 8-inch pipelines, Two 6-inch pipelines	Gulf States Pipeline Co.
663+35		One 12-inch pipeline	Shell Pipeline Co.
664+32		One 5 KV power cable	U.S. Maritime Administration
665+00		One 24-inch pipeline	Florida Gas Transmission Co.
665+35		One 24-inch pipeline	Florida Gas Transmission Co.
666+50		One 8-inch pipeline	United Gas Pipeline Co.
666+70		One 20-inch pipeline	Texas Eastern Transmission Co.
667+35		One 20-inch pipeline	Texas Eastern Transmission Co.
671+65	4654	One 30-inch pipeline	Texas Eastern Transmission Co.
672+80	3037	One 30-inch pipeline	Duke Energy.
674+00	10767	Two 14-inch pipelines	Texas Eastern Transmission Co.
674+30		One 24-inch pipeline	Sabine Gas Transmission Co.
775+00		One 6-inch pipeline One 8-inch pipeline	
777+72	8891	One Aerial Transmission Line	Gulf States Utilities Co.
780+00		One 12-inch pipeline	Tejah Pipeline
780+00		One 10-inch pipeline	Praxair Pipeline
788+55		One 18-inch pipeline	Gulf States Utilities Co.
835+85	8891	One Aerial Transmission Line	Gulf States Utilities Co.
836+76		Two 6-inch pipelines	Big 3 Industrial Gas. Inc.

**EVERY EFFORT HAS BEEN MADE TO GIVE PERTINENT DETAILS ON THE LOCATION OF THE PIPELINES. THE DATA FURNISHED ON THE PLANS 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 PORT ARTHUR AREA OFFICE.**

THE FOLLOWING IS FURNISHED FOR INFORMATION TO VERIFY PIPELINE OWNERSHIPS:

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

## **1.7 WORK COVERED BY THE CONTRACT PRICE.**

1.7.1 Mobilization and Demobilization. The contract lump sum price for "Mobilization and Demobilization" 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.

1.7.2 Dredging. The contract unit price per cubic yard for "Dredging-Sections 1-4, 8-17, 11A and 16A," and "Dredging-Sections 5-7" shall include the cost of removal and placement of the material as specified in the Paragraphs: CHARACTER OF MATERIALS and PLACEMENT OF EXCAVATED MATERIAL below. The contract price for dredging shall also include the costs for placing and handling pipelines to and at the Placement Areas, design, construction and maintenance of the levees, drop-outlets and ditches necessary to confine the material within the areas shown. Payment for the increase or decrease in cost associated with dredging Sections 5 through 7 and pumping the material to Bessie Heights will be paid under the Option unit price for "Dredging (Sections 5-7)."

1.7.3 Pipelines. The contract lump sum price for "Pipelines (Sections 1-4, 8-17, 11A and 16A)," and "Pipelines (Sections 5-7)" 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. Payment for the increase or decrease in cost associated with pipelines to the Bessie Height Site will be paid for under the Option lump sum price for "Pipeline (Sections 5-7)."

## **1.8 CHARACTER OF MATERIALS.**

1.8.1 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 allowable overdepth, and 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, Port Arthur Duty Station and after investigation decide for themselves the character of the materials.

1.8.2 Other Materials, including scrap, rope, wire cable, snags, and stumps may be encountered in the specific limits and overdepth dredging and no separate payment will be made for removal and disposal of this debris.

## 1.9 MEASUREMENT

1.9.1 Dredging. The total amount of material removed and to be paid for under this Item of the Bidding Schedule shall be measured by the cubic yard in place. 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: OVERDEPTH, SIDE AND END SLOPES below, less deductions that may be required for misplaced material specified in the Paragraph: PLACEMENT OF EXCAVATED MATERIAL below.

1.9.2 Ledge Rock. If ledge rock is present, the amount removed and to be paid for will be measured by the cubic yard in-place by computing the volume between the top surface of the rock as shown by the probings of the last survey made before drilling and blasting and the bottom surface shown by a probing survey made before drilling and blasting and the bottom surface shown by a probing survey made as soon as practicable after completion of the work and included within the limits of the overdepth, side and end slopes specified in the Subparagraph: Table of Allowable Overdepth, Side and End Slopes below, less deductions that may be required for misplaced materials specified in the Paragraph: PLACEMENT OF EXCAVATED MATERIAL, below. The quantity of material other than ledge rock removed and to be paid for will be determined by subtracting the quantity of ledge rock as measured above, from the total quantity of material removed and to be paid for.

1.9.3 Electronic Positioning. In using electronic positioning the Government will make a corrective adjustment, if applicable, in the volume computation process to compensate for the repeatability tolerance of the electronic positioning equipment, between "before-dredging" and "after-dredging" surveys. The amount of this adjustment will be limited to a shift of plus or minus 3 meters on an azimuth from the baseline normal to the centerline of the cut, of the "after-dredging" survey with respect to the "before-dredging" survey. Adjustments made in "after-dredging" cross sections will also result in a similar adjustment to the "before-dredging" cross sections in the area not dredged. The horizontal control points shown are the control points the Government will use to perform electronic surveys on the waterway. 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 Neches River Channel and Port Arthur Canal project is available at the Northern Area Office, Port Arthur Project Office. The Contractor shall be responsible for establishing its own reference line to conduct hydrographic surveys and dredging operations if electronic positioning equipment is not used.

1.9.4 Drawings. The drawings already prepared as specified in the SPECIAL CONTRACT REQUIREMENTS, STANDARD CLAUSE entitled CONTRACT DRAWINGS AND SPECIFICATIONS represent conditions existing as of the date of their preparation

(average existing conditions). 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 specified 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.

## **1.10 PAYMENT.**

1.10.1 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.

1.10.2 Dredging. Monthly partial payment for "Dredging (Sections 1-4, 8-17, 11A and 16A)," and "Dredging (Sections 5-7)" will be based on approximate quantities determined by fathometer soundings or sweepings taken behind the dredge. Payment for the increase or decrease in cost associated with dredging Sections 5 through 7 and pumping the material to Bessie Heights will be paid under the Option unit price for "Dredging (Sections 5-7)."

1.10.3 Levees, Drop-outlets and Ditches. Monthly partial payments for "Levees, Drop-outlets and Ditches-PA Nos. 23 and 25B," "Levees, Drop-outlets and Ditches-PA No. 18 at 15' Elev." under Schedule No. 1 or "Levees, Drop-outlets and Ditches-PA No. 18 at 13' Elev." under the Option will be based on estimates of the work completed during the period. Payment for the increase or decrease in cost associated with constructing the levees at PA No. 18, 2-feet lower will be paid under the Option lump sum price for "Levees, Drop-outlets, and Ditches-PA No. 18 at 13' Elev."

1.10.4 Pipelines. Monthly partial payments for "Pipelines (Sections 1-4, 8-17, 11A and 16A)," and "Pipelines (Sections 5-7)" will be made based on estimates of the work completed during the period. Payment for the increase or decrease in cost associated with pipelines to the Bessie Height Site will be paid for under the Option lump sum price for "Pipeline (Sections 5-7)."

1.10.5 Control of Discharge and Effluent Control at Beneficial Use Site. The costs associated with providing equipment and labor for accomplishing the required control of discharge and control of effluent at Bessie Heights (BUS) during dredging shall be included under the Option contract unit price per cubic yard for "Dredging Sections 5-7."

1.10.6 Beneficial Use Site Levee Maintenance and Repair. The increase or costs associated with providing equipment and labor for inspecting and maintaining the integrity and elevation of levees at the Bessie Heights shall be included under the Option contract unit price for "Dredging-Sections 5-7."

## **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.

## **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: SCOPE OF WORK above, is 2,383,900 cubic yards, in-place measurement, including anticipated shoaling occurring prior to the dates of the "before-dredging" sections.

3.1.2 Overdepth. The maximum amount of allowable overdepth dredging is estimated to be 723,600 cubic yards, in-place measurement, including anticipated shoaling occurring prior to the dates of the "before-dredging" sections.

3.1.3 Estimated Quantities. Within the limit of available funds, the Contractor will 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 the NON-REGULATED CONTRACT REQUIREMENTS CLAUSE entitled VARIATIONS IN ESTIMATED QUANTITIES - DREDGING.

3.1.4 Restrictions. No more than one (1) dredge shall be allowed to pump into the given Placement Area at one (1) time.

**3.2 SECTIONS.** For the purpose of acceptance, the dredging work Item in 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)
<b>MIDDLE REACH NECHES RIVER</b>						
1	150+00	200+00	5,000	134,000	32,000	166,000
2	200+00	250+00	5,000	287,000	51,000	338,000
3	250+00	300+00	5,000	114,000	31,000	145,000
4	300+00	350+00	5,000	101,000	29,000	130,000
5	350+00	400+00	5,000	186,000	46,000	232,000
6	400+00	450+00	5,000	117,000	45,000	162,000
7	450+00	505+00	5,500	184,000	50,000	234,000
8	550+00	600+00	5,000	61,000	30,000	91,000
9	600+00	650+00	5,000	81,000	32,000	113,000
10	650+00	700+65	5,065	68,000	34,000	102,000
11	700+65	750+00	4,935	91,000	41,000	132,000
12	750+00	800+00	5,000	52,000	24,000	76,000
13	800+00	850+00	5,000	101,000	30,000	131,000
<b>Sub-Total</b>			65,500	1,577,000	475,000	2,052,000
<b>CHANNEL "C" - MIDDLE REACH NECHES RIVER CHANNEL</b>						
11A	714+20	726+75.7	1,255.70	16,000	14,000	30,000
<b>Sub-Total</b>			1,255.70	16,000	14,000	30,000
<b>PORT ARTHUR CANAL</b>						
14	290+00	326+24.5*	3,624.5	406,600	97,200	503,800
<b>Sub-Total</b>			3,624.5	406,600	97,200	503,800
<b>SABINE NECHES CANAL</b>						
15	0+00	40+00	4,000	147,500	43,000	190,500
<b>Sub-Total</b>			4,000	147,500	43,000	190,500
<b>ENTRANCE CHANNEL AND PORT ARTHUR EAST TURNING BASINS</b>						
16	0+00	31+09.8**	3,522.5	166,700	53,200	219,900
16A	0+00	17+65	1,765	55,900	26,900	82,800
<b>Sub-Total</b>			1,765	222,600	80,100	302,700
<b>WEST TURNING BASIN AND CONNECTING CHANNEL</b>						
17	31+09.8	61+30	3,020.2	14,200	14,300	28,500
<b>TOTALS</b>			<b>82,687.9</b>	<b>2,383,900</b>	<b>723,600</b>	<b>3,107,500</b>
*Sta. 326+24.5(Port Arthur Canal)=Sta. 0+00(Sabine Neches Canal)						
**Sta. 22+10.2 (Backward)=Sta. 17+97.5(Forward)(Port Arthur West Turning Basin)						
(1) The term "prescribed depth" is synonymous with the term "required depth" and "required dredging prism" used elsewhere in these specifications.						
(2) Includes anticipated shoaling.						

**3.3 ORDER OF WORK.** The work shall be performed in the following order:

- (1) The Contractor shall commence dredging with Section No. 14. The dredging of Section No. 14 shall proceed as follows:  
  
Start dredging at Station 290+00 and proceed towards Station 319+60 dredging a channel with a width of 340-foot as measured from the left toe looking towards increasing station.
- (2) Dredge the following Sections in the following sequence: Section Nos. 16, 16A, 17 and 15. Dredging shall be to the required template.
- (3) Complete the dredging of Section No. 14 to the required design template prior to dredging the Middle Reach.
- (4) The Contractor shall perform levee and associated drop-outlet work at Placement Areas Nos. 18 and 23 concurrently with the above order of work.

3.3.1 The Contractor will be paid for removing any shoaled material above the required template that may have accumulated in Section No. 14 upon completing the dredging of Section Nos. 16,16A,17 and 15.

**3.4 PLACEMENT OF EXCAVATED MATERIAL**

3.4.1 General. The Contractor shall inspect the proposed Placement Areas to ensure that using the Areas for placement operations will 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 will not be deposited or allowed to flow into project channels, a bayou or stream tributary to the Waterway, 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 will 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 spillway 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 deposit of the 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 spillway 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 spillway 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 spillway 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 and other non-dredging items.

#### 3.4.2 Placement Areas.

3.4.2.1 Placement Area No. 8. No work is required on the existing perimeter and training levees. The perimeter levee of Placement Area No. 8 shall be maintained and repaired as necessary for the duration of this contract and to the requirements of the Section entitled EMBANKMENT CONSTRUCTION. Both existing Drop-Outlet Structures shall be maintained as necessary, as a minimum replacing damaged or missing weir boards. The Contractor shall take precautionary measures to ensure boards are not removed by the general public using the adjacent levee roadway. Laying pipelines to the Placement Area will require crossing the Texas Department of Transportation Roadway, Highway 82, and the City of Port Arthur's T.B. Ellison Roadway, which parallels the waterway. Crossings shall be made through existing culverts shown. The Contractor shall monitor and control the movement of the discharge point to ensure an even build-up or distribution of dredge material within the discharge corridor shown.

3.4.2.2 Placement Area No. 18. Levees shall be constructed to the templates shown and to the requirements of the SECTION entitled EMBANKMENT CONSTRUCTION. The Contractor shall conduct discharge operations so that only material removed from Sections Nos. 1 through 6 are deposited in Placement Area No. 18. The Contractor shall monitor and control the movement of the discharge point to ensure an even build-up or distribution of dredge material within the discharge corridor shown.

3.4.2.3 Placement Area No. 23. Levees shall be constructed to the templates shown and to the requirements of the SECTION entitled EMBANKMENT CONSTRUCTION. The Contractor shall conduct discharge operations so that the only material removed from Sections Nos. 7 through 10 are deposited in Placement Area No. 23. The Contractor shall monitor and control the movement of the discharge point to ensure an even build-up or distribution of dredge material within the discharge corridor shown. Discharge shall start at levee Station 99+84 and continue in a northwesterly direction to levee station 124+84.

3.4.2.4 Placement Area No. 25B. No work is required on the existing perimeter and training levees. The perimeter levee of Placement Area No. 25B shall be maintained and repaired as necessary for the duration of this contract. Costs associated with the

placement and removal of dredge pipelines as specified herein, including equipment, materials, and labor, shall be included in the lump-sum price for “Pipelines (Sections 1-4, 8-17, 11A and 16A).” Costs associated with the construction of temporary access to the two (2) spillways located in PA 25B, as specified herein, including equipment, materials, and labor, is considered a subsidiary cost of dredging and the cost included in the lump sum price for “Levees, Drop-outlets, and Ditches-P.A. Nos. 23 and 25B.” The discharge shall not exceed +3.5 MLT and the Contractor shall monitor and control the movement of the discharge point to ensure an even build-up of material throughout the Placement Area and to prevent overflowing the levees. The existing Drop-inlet type structure shall be cleaned out to provide unrestricted flow of the waters from the Placement Area to the Channel. The Contractor shall conduct discharge operations so that the only material removed from Sections Nos. 11 through 13, and 11A is deposited within the confines of the Placement Area.

3.4.2.5 Levee Volume. The following “neat-line volumes” have been used by the U.S. Army Corps of Engineers to prepare the Government estimate. The volumes are estimated only and the Contractor is responsible to interpret the volume numbers used to prepare his estimate for bid opening. “Neat-line Volumes” is defined as the unadjusted, raw quantities computed from the levee templates. The percentage for items including overbuilding, compaction, settlement, foundation displacement, construction waste, etc. is the responsibility and decision of the Contractor. The volume figures for the various Placement Areas in this contract are as follows:

<b>PLACEMENT AREA NO.</b>	<b>LEVEE VOLUMES</b>
18-15' Elev.	33,000 cubic yards
18-13' Elev.	16,500 cubic yards
23	105,853 cubic yards

3.4.2.6 Distribution of Dredged Material. The material dredged from the channel sections specified in this contract shall be distributed in the Placement Areas designated according to the TABLE OF DISTRIBUTION OF DREDGED MATERIAL below:

**TABLE OF DISTRIBUTION OF DREDGED MATERIAL WITHOUT OPTION**

STARTING CHANNEL STATION	ENDING CHANNEL STATION	SECTION NO.(S) OF CONTRACT	PLACEMENT AREA NO.(S)
MIDDLE REACH NECHES RIVER CHANNEL			
150+00	450+00	1-6	18
450+00	700+65	7-10	23
CHANNEL "C" MIDDLE REACH NECHES RIVER CHANNEL			
700+65	736+75.7	11-13 & 11A	25B
PORT ARTHUR CANAL			
290+00	326+24.5	14	8
SABINE NECHES CANAL			
0+00	40+00	15	8
ENTRANCE CHANNEL AND PORT ARTHUR EAST TURNING BASIN			
0+00	31+09.8	16	8
0+00	17+65	16A	8
PORT ARTHUR WEST TURNING BASIN AND CONNNECTING CHANNEL			
31+09.8	61+30	17	8

3.4.2.7 Bessie Heights Marsh Restoration Area. The work involves the placement of dredged material from Dredging Section Nos. 5-7. The limits of the area, dredge pipeline route, discharge corridor and Disposal Mound (DM) areas, and the required typical section for the mounds to be constructed shall be as shown. Initial discharge points and direction of movement of discharge are indicated by arrows and shall be followed as shown. The order of placement of materials at Bessie Heights shall be as follows:

- (1) DM #4 – Approximately 130,000 CY
- (2) DM #1 – Approximately 231,000 CY
- (3) DM #3 – Approximately 100,000 CY
- (4) DM #2 – Approximately 120,000 CY

Material shall be placed using discharge controls, as specified. Coarse-grained materials from required dredging shall be used to construct the emergent mounds to the width and elevation and with discharge direction and advance of dredge pipe as shown. The lengths of the mounds constructed will be determined by the quantity of coarse-grained material discharged in each corridor and will not generally extend the entire length of the corridor. If it is deemed necessary, to accomplish the desired distribution of materials, for marsh habitat construction, the Contracting Officer may direct changes be made to the mound template or to increase or decrease the amounts of material to be placed in each successive discharge mound, prior to directing the Contractor to move to the next specified discharge mound location.

3.4.2.8 Control of Discharge at BUS. In general, control of discharge shall include use of spreaders, spoons or other devices which reduce erosion of placed materials due to high flow velocities that occur with concentrated discharge. Additionally, the Contractor shall install a Wye valve at each Discharge Mound, to accomplish selected placement of materials, as specified and allow use of separated discharges to diminish discharge flow. Additionally, the Contractor shall have two marsh excavators at the site during dredging, to assist with control of material placement along the Discharge Mounds and to perform inspections and required repairs of levees, and control of effluent, as specified. Specific additional required control of discharge at each DM shall be as follows:

- (1) DM #4. The Contractor shall install a Wye valve approximately 500 to 800 feet from the initial discharge point, and place a line discharging into the area to the north identified as the "Low Water Pond". The contractor shall then discharge approximately 25,000 CY into the "Low Water Pond", before diverting the discharge to DM #4. After inspection of the "Low Water Pond", the Government will direct that additional material be discharged into the pond, if required, to obtain the desired habitat elevation. The remainder of material shall be used to construct the discharge mound in DM #4.
- (2) DM #1. The initial discharge shall be located approximately 150 feet inside the new levee 100-foot opening along the pipeline, and material placed using floating discharge until a build-up of a mound of material at minimum elevation of +5 feet, approximately 100 feet across, which effectively blocks off the original 100-foot opening in the new levee, as it crosses the pipeline. At this point, the Contractor will be allowed to operate marsh buggies and excavators on top of the pipeline, and dredge pipe may then be placed directly on top of the fill, over the pipeline. The remainder of the mound shall be constructed by advancing pipe along the corridor. The contractor shall maintain material at minimum elevation of +4 in the area where equipment and the dredge pipe is allowed to cross the pipeline alignment, throughout the placement of material in DM #1. The Contractor shall maintain control of discharge flow, using spreaders, Wye valves and split discharge, or other techniques, as required, and repair and maintain the adjacent new levee integrity and height throughout the discharge period, such that no dredged material is allowed to flow over or wash across the levee.

- (3) DM #2 and DM #3. The mound shall be constructed by advancing pipe along the corridor. The Contractor shall maintain control of discharge flow, using spreaders, Wye valves and split discharge, or other techniques, as required, and maintain the adjacent new levee integrity and height such that no dredged material is allowed to flow over or wash across the levee. Prior to commencement of discharge in these two areas, the Contractor shall arrange a meeting with the Government, to discuss the Contractor's proposed plan of discharge, and discharge control, to accomplish filling of the remainder of the BUS.

3.4.2.9 Control of Effluent for BUS. No active control of effluent is required at the site, except for maintaining new and repaired levees, and repair of active washouts of existing levee areas, if this situation occurs. As material is placed, and allowed to settle within the restoration site, effluent will be allowed to exit the site at ground elevation through (1) the demonstration berm area, (2) around the east end of the new training berm on the east side of the demonstration area. Additionally, effluent water can exit the site over the tops of existing demonstration berms or new berms at the north end of the site, and across vegetated existing levee areas located between the required levee repair reaches. Along with inspecting the integrity of new and repaired levees, the Contractor shall observe effluent flow through vegetation in the existing levee reaches between the levee repair reaches. If, at any location, it appears that excess flow across the existing levee is occurring, such that erosion is likely, or such that significant amounts of dredged material are flowing into canals, the Contractor shall excavate material from the canal bank and place material, as required, to control the flow. All dredged material that flows through breaches in or over the tops of levees to form shoals outside of the site, shall be removed and placed into the BUS, as specified hereinafter, in Subparagraph entitled Unauthorized Placement of Material below.

### 3.4.3 Pipelines.

3.4.3.1 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 Port Arthur Project Office, Pleasure Island, Port Arthur, Texas.

3.4.3.2 Location Details. Every effort has been made to give pertinent details on the locations of utility pipelines and other facilities which 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, which may interfere with pipeline laying herein specified.

3.4.3.3 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 a submerged section shall not be higher than 44 feet below Mean Low Tide (MLT) in the Middle Reach Neches River and Port Arthur Canal, and 40 feet below MLT in the Neches River Channel "C". 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.

3.4.3.4 Pipelines to Beneficial Use Site. The dredge pipeline route to the Site shall be as indicated and shall not block or inhibit traffic within the Bessie Heights Canal and the canal to DM #4.

#### 3.4.4 Unauthorized Placement of Material.

3.4.4.1 Unauthorized Disposition. 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.

3.4.4.2 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.

3.4.5 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, Jadwin Building, 2000 Fort Point Road, Galveston, Texas and the Port Arthur Project Office. 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.

### 3.4.6 Preservation of Public and Private Property.

3.4.6.1 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.

3.4.6.2 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 liable for and will 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.

### 3.4.7 Alternate Placement Area(s) Proposed by Contractor After Award of Contract.

3.4.7.1 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 of the Contracting Officer. 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 and State Natural Resource 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.

3.4.7.2 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.

## **3.5 OVERDEPTH, SIDE, AND END SLOPES.**

3.5.1. 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.

3.5.2. Side and End Slopes. Material actually removed from within approved limits, to provide for final side and end slopes as specified in the Paragraph: OVERDEPTHS, 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.

3.5.3 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 NON-REGULATED SPECIAL CONTRACT REQUIREMENTS CLAUSE entitled FINAL EXAMINATION AND ACCEPTANCE or SHOALING.

3.5.4 Table of Allowable Overdepth, Side and End Slopes.

<b>MIDDLE REACH NECHES RIVER CHANNEL</b>							
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	
150+00	---	---	---	---	1	2	42
150+00	850+00	1	1	2	---	---	42
850+00	---	---	---	---	1	2	42
<b>CHANNEL "C" MIDDLE REACH NECHES RIVER CHANNEL</b>							
714+20	---	---	---	---	1	2	38
714+20	726+75.7	1	1	2	---	---	38
726+75.7	---	---	---	---	1	2	38
<b>PORT ARTHUR CANAL</b>							
290+00	---	---	---	---	1	2	42
290+00	326+24.5*	1	1	2	---	---	42
326+24.5	---	---	---	---	1	2	42

<b>SABINE NECHES CANAL</b>							
0+00	---	---	---	---	1	2	42
0+00	40+00	1	1	2	---	---	42
40+00	---	---	---	---	1	2	42
<b>ENTRANCE CHANNEL, WEST TURNING BASIN AND CONNECTING CHANNEL</b>							
0+00	---	---	---	---	1	2	42
0+00	61+30**	1	1	2	---	--	42
61+30	---	---	---	---	1	2	42
<b>EAST TURNING BASIN</b>							
0+00	---	---	---	---	1	2	42
0+00	17+65	1	1	2	---	---	42
17+65	---	---	---	---	1	2	42
*Sta. 326+24.5(Port Arthur Canal)=Sta. 0+00(Sabine Neches Canal)							
**Sta. 22+10.2(Backward)=Sta. 17+97.5(Forward)(Port Arthur West Turning Basin)							

**3.6 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 (ENG Form 27A). The program will be provided to the Contractor using 3.5-inch diskettes 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 will need an IBM compatible with a minimum of a 486/66 processor with 8 MB of RAM running Microsoft Windows 3.11 or Microsoft Windows 95, Y2K compliant. Hard drive space needed to install the program and accommodate the data will be approximately 15 MB. Printing will be best accomplished with either a LaserJet or Inkjet Printer on 8.5-by 11-inch paper in the portrait mode. Modem settings will 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 will 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 will 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 will be required to print and sign reports and submit the original hard copies to the Area Engineer to verify authentication. The District Office using the reporting features of the database will

generate monthly reports. If technical problems arise, the point-of-contact for this matter will be Tim Baumer at (409) 766-3874.

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