

IFB NO. W912P819B0005

**US Army Corps
of Engineers** ®
New Orleans District

Mississippi River, Raton Rouge to Gulf of
Mexico

Southwest Pass Hopper Dredge Rental Contract No. 5- 2019

Plaquemines Parish, Louisiana

Construction Solicitation
and Specifications

November 1, 2018



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 Leake Avenue
NEW ORLEANS, LOUISIANA 70118-3651

1 NOVEMBER 2018

REPLY TO
ATTENTION OF

SOLICITATION: W912P819B0005
UNRESTRICTED

FOR: Mississippi River, Baton Rouge to Gulf of Mexico, Southwest Pass Hopper Dredge Rental Contract No. 5-2019, Plaquemines Parish, Louisiana (OM-19-005)

TO OPEN: TIME AND PLACE OF BID OPENING WILL BE ESTABLISHED IN AN AMENDMENT

- I. NOTE THE AFFIRMATIVE ACTION PROGRAM REQUIREMENT OF THE EQUAL OPPORTUNITY CLAUSE WHICH MAY APPLY TO THE CONTRACT RESULTING FROM THIS SOLICITATION.
- II. NOTE THE CERTIFICATION OF NONSEGREGATED FACILITIES IN THIS SOLICITATION. *Bidders, offerors and applicants are cautioned to note the "Certification of Non-segregated Facilities" in the solicitation. Failure of a bidder or offeror to agree to the certification will render his bid or offer non-responsive to the terms of solicitations involving awards of contracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause.*
- III. Prospective contractors must register in the System for Award Management (SAM). See FAR Clause 52.204-7 for required information. The website for SAM is <https://www.sam.gov>. You will be required to provide your company's Dun and Bradstreet number. If you do not already have a D&B number, one can be requested from Dun and Bradstreet at (800) 333-0505 or <http://fedgov.dnb.com/webform>. Contractors must complete, and submit with their bid, the provisions located in section 00600. A bidder may also submit, in lieu of the completed section 00600, a complete hard copy of their Online Representations and Certifications which is located within the System for Award Management (SAM). Prospective contractors with expired or inactive Representations and Certifications in SAM at time of award will be deemed unresponsive.
- IV. SUBCONTRACTING PLAN WILL BE DUE WITHIN TWO HOURS (2) OF VERBAL NOTIFICATION

BIDDERS MUST PROVIDE FULL, ACCURATE AND COMPLETE INFORMATION AS REQUIRED BY THIS SOLICITATION AND ITS ATTACHMENTS. THE PENALTY FOR MAKING FALSE STATEMENTS IN BIDS IS PRESCRIBED IN 18 U.S.C. 1001. (FAR 52.214-4 APR 1984)

DESCRIPTION AND MAGNITUDE OF WORK: The work consists of furnishing one fully crewed and equipped self-propelled trailing suction type hopper dredge on a rental basis. Work will be performed at the Mississippi River SWP Area and possibly in other areas of the New Orleans District and in areas of both the Galveston and Mobile Districts.

CAUTION TO BIDDERS: *In delivery of hand-carried bids, bidders are cautioned to allow sufficient time for delays which may be encountered as a result of frequent trains which are subject to block all access roads to place of bid opening for various lengths of time. Such delays DO NOT permit acceptance or consideration of late bids.*

NOTE: ALL WORK UNDER THESE SPECIFICATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF EM 385-1-1 "CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL", LATEST CONSOLIDATED VERSION.

OM-19-005

ALL INQUIRIES REGARDING THIS SOLICITATION
SHOULD BE MADE TO THE FOLLOWING:

DIANA W.
ROBINSON and/or
BRADLEY A. COX

CONTRACT SPECIALISTS

U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT

E-MAILS: DIANA.W.ROBINSON@USACE.ARMY.MIL

PHONE: (504) 862-1494

AND/OR

BRADLEY.A.COX2@USACE.ARMY.MIL

PHONE: (504) 862-1083

COLLECT CALLS NOT ACCEPTED

NOTE: FOR THE MOST PROMPT REPSONSE, PLEASE SEND ALL QUESTIONS VIA
E-MAIL.

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	W912P819B0005	<input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	11/01/2018	1 2

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

4. CONTRACT NUMBER	5. REQUISITION/PURCHASE REQUEST NUMBER	6. PROJECT NUMBER
		OM-19-005
7. ISSUED BY U.S. Army Engineer District, New Orleans 7400 Leake Ave. New Orleans, LA 70118-3651	CODE	8. ADDRESS OFFER TO U.S. Army Engineer District, New Orleans Attn: CEMVN-CT-E 7400 Leake Ave., Room 172 New Orleans, LA 70118

9. FOR INFORMATION CALL:	a. NAME Diana W. Robinson	b. TELEPHONE NUMBER (Include area code) (NO COLLECT CALLS) (504) 862-1494
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SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying number, date)

Mississippi River, Baton Rouge to Gulf of Mexico, Southwest Pass Hopper Dredge Rental Contract No. 05-2019, Plaquemines Parish, Louisiana (OM-19-005)

This is an UNRESTRICTED procurement.

The Contractor will furnish one fully crewed and equipped self-propelled trailing suction type hopper dredge on a rental basis. Work will be performed at the Mississippi River SWP Area and possibly in other areas of the New Orleans District and in areas of both the Galveston and Mobile Districts.

** TO BE ESTABLISHED BY AMENDMENT

* See Paragraph 00010-1.5

11. The contractor shall begin performance within 5 calendar days and complete it within * calendar days after receiving award, notice to proceed. This performance period is mandatory negotiable. (See 00800-3.2).

12a. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES", indicate within how many calendar days after award in Item 12b.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12b. CALENDAR DAYS 1(one)
--	----------------------------------

13. ADDITIONAL SOLICITATION REQUIREMENTS:

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

b. An offer guarantee is, is not required.

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


d. Offers providing less than 30 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)	15. TELEPHONE NUMBER (Include area code)
	16. REMITTANCE ADDRESS (Include only if different than Item 14.)

CODE	FACILITY CODE
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17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13d. Failure to insert any number means the offeror accepts the minimum in Item 13d.)

AMOUNTS 

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)


AMENDMENT NUMBER										
DATE.										

20a. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	20b. SIGNATURE	20c. OFFER DATE
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AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
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24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) 	ITEM 26	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) () <input type="checkbox"/> 41 U.S.C. 3304(a) ()
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26. ADMINISTERED BY USACE, New Orleans Area Office 7400 Leake Avenue New Orleans, LA 70118	27. PAYMENT WILL BE MADE BY US ARMY CORPS OF ENGR FINANCE CENTER 5722 INTEGRITY DRIVE MILLINGTON TN 38054-5005
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CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
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30a. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)	31a. NAME OF CONTRACTING OFFICER (Type or print)
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30b. SIGNATURE	30c. DATE	31b. UNITED STATES OF AMERICA BY	31c. DATE
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SECTION 00010

BID SCHEDULE

PART 1 GENERAL

1.1 BIDDING SCHEDULES

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT ONE, 38 inch Inside Diameter (ID) Pump Suction, 12,430 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	483	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	483	Hour	XXXXXXXX	
Total: LOT ONE BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT TWO, 33.5 inch Inside Diameter (ID) Pump Suction, 9,400 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	637	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	637	Hour	XXXXXXXXXX	
Total: LOT TWO BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT THREE, 33.5 inch Inside Diameter (ID) Pump Suction, 6,300 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	778	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	778	Hour	XXXXXXXXXX	
Total: LOT THREE BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT FOUR, 31.5 inch Inside Diameter (ID) Pump Suction, 6,540 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	872	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	872	Hour	XXXXXXXXX	
Total: LOT FOUR BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT FIVE, 30 inch Inside Diameter (ID) Pump Suction, 4,815 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	895	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	895	Hour	XXXXXXXXXX	
Total: LOT FIVE BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT SIX, 28 inch Inside Diameter (ID) Pump Suction, 4,000 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	961	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	961	Hour	XXXXXXXXXX	
Total: LOT SIX BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT SEVEN, 27 inch Inside Diameter (ID) Pump Suction, 3,600 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	1085	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	1085	Hour	XXXXXXXXXX	
Total: LOT SEVEN BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT EIGHT, 26 inch Inside Diameter (ID) Pump Suction, 4,000 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	1194	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	1194	Hour	XXXXXXXX	
Total: LOT EIGHT BID					

SECTION 00010 - BIDDING SCHEDULE

MISSISSIPPI RIVER, BATON ROUGE TO GULF OF MEXICO, SOUTHWEST PASS
 HOPPER DREDGE RENTAL CONTRACT NO. 5-2019
 PLAQUEMINES PARISH, LOUISIANA
 SOLICITATION NO. W912P819B0005

**LOT NINE, 27 inch Inside Diameter (ID) Pump Suction, 3,700 cubic yard
 Nominal Hopper Capacity, Two Dragarms and all attendant plant**

Bid Item	Description	Estimated Quantity	Unit	Unit Price	Total Price
0001	Mobilization & Demobilization of hopper dredge and all attendant plant.	1	Job		
0002	Dredging - Rental of a trailing type hopper dredge.	1249	Hour		
Option 0003	Option Dredging - Same plant listed in Item No. 0002 of this bid lot.	1249	Hour	XXXXXXXX	
Total: LOT NINE BID					

1.2 BID FORM NOTES

a. Bidders shall bid on all items including optional items. Failure to bid on all items will result in a non-responsive bid.

b. Bidders shall use the Item Number 0002 unit price to compute Item Number 0003 total price.

c. Any bid may be rejected if the Contracting Officer or his/her authorized representative determines in writing that it is unreasonable as to price. Unreasonableness of price includes not only the total price of the bid, but the prices for individual line items as well. Any bid may be rejected if the prices for any line items or subline items are materially unbalanced (see "Rejection of Individual Bids" FAR 14.404-2).

d. The Notice to Proceed (NTP): The successful bidder is advised that performance and payment bonds shall be submitted in accordance with the time frame in block 12B of SF 1442 after Notice of Award. The NTP will be issued after verification of acceptable performance and payment bonds. Within 48 hours after issuance of NTP, the Contractor shall initiate a meeting to discuss the submittal process with the Administrative Contracting Officer or his authorized representative. Physical work cannot start until the Quality Control System is set-up, the Accident Prevention Program and other required submittals have been submitted and approved, and all preliminary meetings called for under the contract have been conducted.

e. RAPID VENDOR PAYMENT: See the following web based instructions for the submission of invoices:

<http://www.mvn.usace.army.mil/BusinessWithUs/Contracting/RapidVendorPayment.aspx>

f. The unit "job" is a one-time payment for work performed. "Job" is synonymous with the previously used term "lump sum".

1.3 BIDDING

a. The bidder must select only one bid lot, determined by the class of dredge intended to be used. Bids which are submitted on an inappropriate bid lot will be declared non-responsive.

b. Bidders shall furnish unit prices for all items listed on the schedule of bid items that require unit prices. If the bidder fails to insert a unit price in the appropriate blank for required items but does furnish an extended total or an estimated amount for such items, the Government will deem the unit price to be the quotient obtained by dividing the extended estimated amount for that line item by the quantity. IF THE BIDDER OMITTS BOTH THE UNIT PRICE AND THE EXTENDED ESTIMATED AMOUNT FOR ANY REQUIRED ITEM, THE BID WILL BE DECLARED NON-RESPONSIVE.

1.4 EVALUATION OF BIDS

a. To provide fair competition between dredges of different production rate and capacity, the required dredging quantities and any optional dredging quantities are based on an estimated quantity of shoal material and on the tested production rate of each dredge class.

b. Award will be made to that responsible Bidder presenting the lowest-priced responsive bid in response to this solicitation, regardless of the bid lot used.

c. The hourly quantity shown on the bid lots for Bid Items designated as "Dredging" are 100% pay time hours. The actual calendar duration of the contract may vary as a result of fractional pay time. Refer to Section 35 20 23.23, paragraph entitled "Dredging and Option Dredging Items" for additional information.

1.5 CONDITIONS OF CONTRACT AWARD

a. Award will be made as a whole to one bidder. The dredge and attendant plant offered in the bidding schedule shall be complete with full operating personnel and in operating status for the contract period. EM 385-1-1, Section 19, "Floating Plant and Marine Activities" shall be complied with at all times. NOTE: All work under these specifications shall be performed in accordance with the provisions of EM 385-1-1 "Army Corps of Engineers Safety and Health Requirements Manual", latest edition.

b. The Government may award the contract at the total bid price, comprised of the base items and option item(s); however, the Government will not be obligated to exercise any option item(s).

c. The number of rental time hours for each bid lot of the bidding schedule are estimated quantities. The dredge and attendant plant will be retained for an approximate number of days according to the table below starting no later than 120 hours after receipt of Notice to Proceed by the Contractor.

**APPROXIMATE HOPPER DREDGE
CONTRACT DURATION
(BASE PLUS OPTION)**

Bid Lot	Pump Inside Dia. (inches)	Hopper Size (Cubic Yards)	Number of Dragarms	Approximate Number of Rental Days
1	38	12430	2	84
2	33.5	9400	2	98
3	33.5	6300	2	111
4	31.5	6540	2	120
5	30	4815	2	122
6	28	4000	2	128
7	27	3600	2	139
8	26	4000	2	149
9	27	3700	2	154

d. The bidder must be capable of providing for assignment of the dredge and all attendant plant, complete and in full operating condition in all respects, within 120 hours after receipt of Notice to Proceed by the Contractor.

1.6 BIDDER QUALIFICATIONS

a. Before the Government will award a contract based on this solicitation, the apparent low bidder shall establish that it is responsible and entitled to award of the contract, by certifying that its dredge meets the appropriate production rate, as listed in the table of Section 35 20 23.23, paragraph entitled "Dredge Plant". The dredge must perform at or above the listed production rate at least 85% of the time, as established by other contracts completed within three years prior to the bid opening date of this solicitation. Failure to establish an adequate capability will result in a finding of non-responsibility.

b. A bidder may be rejected as non-responsible if it cannot show the necessary capital, experience, or equipment needed to perform the work described under this solicitation (see "Responsible Prospective Contractors" FAR 9.1). The bidder must also show that the dredge and attendant plant is not already obligated for the performance of other work that would delay commencement, performance, and completion of the solicited work; and must show that delivery of the dredge and attendant plant to the site of work can be made within the time allowed in the specifications.

c. Bidders must register in the System for Award Management (SAM) database in accordance with FAR 52.204-7 and DFARS 252.204-7004 Alt A.

1.7 PRE-AWARD INSPECTION OF PLANT

a. The apparent low bidder shall make the dredge and attendant plant available for inspection, to determine compliance with these specifications, as soon as practicable after bids are opened and prior to contract award. If deficiencies are found during the inspection, the bidder will be notified in writing, which may be transmitted by email or facsimile. Upon receipt of such notice, the bidder shall correct all deficiencies at least two calendar days in advance of the projected contract award date.

b. Two calendar days before the projected award date or upon notification by the bidder that the deficiencies have been corrected, a Government representative will re-inspect the dredge and attendant plant. If at that time the dredge and attendant plant do not meet the requirements of these specifications, the bidder will be rejected as non-responsible.

c. The Government may choose to waive the pre-award inspection if the projected contract award date is less than five calendar days after the bid opening date. Waiver of the pre-award inspection does not relieve the bidder from the requirement to provide a dredge and attendant plant in full compliance with the specifications.

1.8 OPTION ITEMS

a. The Government may require the delivery of, in whole or part, any Option Items. The Government may exercise an Option Item by written notice to the Contractor. If the Government activates the Option Item, the activation will occur while the Contractor's equipment is in the work vicinity as described in the applicable Dredging Region Section(s). If "Option Dredging" Item work is exercised, it shall be performed as a continuance of "Dredging" Item work, which shall be activated first.

b. No additional mobilization/demobilization will be paid to the Contractor for Option Item work performed within the work region. The Contractor shall commence performance of optional work no more than 3 calendar days after the time the Contractor receives the Government's Notice to Proceed with the optional work.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-- End of Section --

BID BOND
(See instructions on reverse)

DATE BOND EXECUTED (Must not be later than bid opening date)

OMB Control Number: 9000-0045
Expiration Date: 7/31/2019

Paperwork Reduction Act Statement - This information collection meets the requirements of 44 USC § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 9000-0045. We estimate that it will take 25 minutes to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: General Services Administration, Regulatory Secretariat Division (M1V1CB), 1800 F Street, NW, Washington, DC 20405.

PRINCIPAL (Legal name and business address)

TYPE OF ORGANIZATION ("X" one)

- INDIVIDUAL PARTNERSHIP
 JOINT VENTURE CORPORATION

STATE OF INCORPORATION

SURETY(IES) (Name and business address)

PENAL SUM OF BOND				BID IDENTIFICATION		
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NUMBER
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS	FOR (Construction, supplies, or Services)	

OBLIGATION

We, the Principal and Surety (ies) are firmly bound to the United States of America (hereinafter call the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit or liability is the full amount of the penal sum.

CONDITIONS:

The principal has submitted the bid identified above.

THEREFORE:

The above obligation is void if the Principal - (a) upon acceptance by the Government of the bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), executes the further contractual documents and gives the bond(s) required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by the principal; or (b) in the event of failure to executes such further contractual documents and give such bonds, pays the Government for any cost of procuring the work which exceeds the amount of the bid.

Each surety executing this instrument agrees that its obligations is not impaired by any extension(s) of the time for acceptance of the bid that the principal may grand to the Government. Notice to the surety (ies) of extensions (s) are waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the periods originally allowed for acceptance of the bid.

WITNESS

The principal and Surety (ies) executed this bid bond and affixed their seals on the above date.

PRINCIPAL

SIGNATURE(S)	1.	2.	3.	Corporate Seal
	(Seal)	(Seal)	(Seal)	
NAME(S) & TITLE(S) (Typed)	1.	2.	3.	

INDIVIDUAL SURETY(IES)

SIGNATURE(S)	1.	2.
	(Seal)	(Seal)
NAME(S) (Typed)	1.	2.

CORPORATE SURETY(IES)

SURETY A	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		

SURETY B	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) (Typed)	1.	2.		

INSTRUCTIONS

1. This form is authorized for use when a bid guaranty is required. Any deviation from this form will require the written approval of the Administrator of General Services.
2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
3. The bond may express penal sum as a percentage of the bid price. In these cases, the bond may state a maximum dollar limitation (e.g., 20% of the bid price but the amount not to exceed _____ dollars).
4. (a) Corporation executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. Where more than one corporate surety is involved, their names and address shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY (IES)." In the space designed "SURETY (IES)" on the face of the form, insert only the letter identification of the sureties.

(b) Where individual sureties are involved, a completed Affidavit of Individual Surety (Standard Form 28), or each individual surety, shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.
5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seal"; and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.
6. Type the name and title of each person signing this bond in the space provided.
7. In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "Offeror."

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSED INCORPORATED BY REFERENCE

52.204-7	System for Award Management	OCT 2016
52.204-22	Alternative Line Item Proposal	JAN 2017
52.214-3	Amendments To Invitations For Bids	DEC 2016
52.214-4	False Statements In Bids	APR 1984
52.214-5	Submission Of Bids	DEC 2016
52.214-6	Explanation To Prospective Bidders	APR 1984
52.214-7	Late Submissions, Modifications, and Withdrawals of Bids	NOV 1999
52.214-12	Preparation Of Bids	APR 1984
52.214-18	Preparation of Bids-Construction	APR 1984
52.214-19	Contract Award -- Sealed Bidding – Construction	AUG 1996
52.214-29	Order Of Precedence--Sealed Bidding	JAN 1986
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991
52.222-5	Construction Wage Rate Requirements--Secondary Site of the Work	MAY 2014
52.225-10	Notice of Buy American Requirement--Construction Materials	MAY 2014
52.232-13	Notice Of Progress Payments	APR 1984

CLAUSES INCORPORATED BY FULL TEXT

52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (JULY 2013)

(a) Definitions. As used in this provision--

Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative Proceedings, Civilian Board of Contract Appeals Proceedings, and Armed Services Board of Contract Appeals Proceedings). This includes administrative proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include agency actions such as contract audits, site visits, corrective plans, or inspection of deliverables.

Federal contracts and grants with total value greater than \$10,000,000 means--

- (1) The total value of all current, active contracts and grants, including all priced options; and
- (2) The total value of all current, active orders including all priced options under indefinite-delivery, indefinite-quantity, 8(a), or requirements contracts (including task and delivery and multiple-award Schedules).

Principal means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

(b) The offeror () has () does not have current active Federal contracts and grants with total value greater than \$10,000,000.

(c) If the offeror checked “has” in paragraph (b) of this provision, the offeror represents, by submission of this offer, that the information it has entered in the Federal Awardee Performance and Integrity Information System (FAPIS) is current, accurate, and complete as of the date of submission of this offer with regard to the following information:

- (1) Whether the offeror, and/or any of its principals, has or has not, within the last five years, in connection with the award to or performance by the offeror of a Federal contract or grant, been the subject of a proceeding, at the Federal or State level that resulted in any of the following dispositions:

- (i) In a criminal proceeding, a conviction.
 - (ii) In a civil proceeding, a finding of fault and liability that results in the payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more.
 - (iii) In an administrative proceeding, a finding of fault and liability that results in--
 - (A) The payment of a monetary fine or penalty of \$5,000 or more; or
 - (B) The payment of a reimbursement, restitution, or damages in excess of \$100,000.
 - (iv) In a criminal, civil, or administrative proceeding, a disposition of the matter by consent or compromise with an acknowledgment of fault by the Contractor if the proceeding could have led to any of the outcomes specified in paragraphs (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of this provision.
- (2) If the offeror has been involved in the last five years in any of the occurrences listed in (c)(1) of this provision, whether the offeror has provided the requested information with regard to each occurrence.
- (d) The offeror shall post the information in paragraphs (c)(1)(i) through (c)(1)(iv) of this provision in FAPIIS as required through maintaining an active registration in the System for Award Management database via <https://www.acquisition.gov> (see 52.204-7).

(End of provision)

52.209-13 VIOLATION OF ARMS CONTROL TREATIES OR AGREEMENTS-CERTIFICATION (JUNE 2018)

- (a) This provision does not apply to acquisitions below the simplified acquisition threshold or to acquisitions of commercial items as defined at FAR 2.101.
- (b) Certification. [Offeror shall check either (1) or (2).]
 - (1) The Offeror certifies that--
 - (i) It does not engage and has not engaged in any activity that contributed to or was a significant factor in the President's or Secretary of State's determination that a foreign country is in violation of its obligations undertaken in any arms control, nonproliferation, or disarmament agreement to which the United States is a party, or is not adhering to its arms control, nonproliferation, or disarmament commitments in which the United States is a participating state. The determinations are described in the most recent unclassified annual report provided to Congress pursuant to section 403 of the Arms Control and Disarmament Act (22 U.S.C. 2593a). The report is available via the Internet at <https://www.state.gov/t/avc/rls/rpt/>; and
 - (ii) No entity owned or controlled by the Offeror has engaged in any activity that contributed to or was a significant factor in the President's or Secretary of State's determination that a foreign country is in violation of its obligations undertaken in any arms control, nonproliferation, or disarmament agreement to which the United States is a party, or is not adhering to its arms control, nonproliferation, or disarmament commitments in which the United States is a participating state. The determinations are described in the most recent unclassified annual report provided to Congress pursuant to section 403 of the Arms Control and Disarmament Act (22 U.S.C. 2593a). The report is available via the Internet at <https://www.state.gov/t/avc/rls/rpt/>; or
 - (2) The Offeror is providing separate information with its offer in accordance with paragraph (d)(2) of this provision.
- (c) Procedures for reviewing the annual unclassified report (see paragraph (b)(1) of this provision). For clarity, references to the report in this sub-section refer to the entirety of the annual unclassified report, including any separate reports that are incorporated by reference into the annual unclassified report.
 - (1) Check the table of contents of the annual unclassified report and the country section headings of the reports incorporated by reference to identify the foreign countries listed there. Determine whether the Offeror or any person

owned or controlled by the Offeror may have engaged in any activity related to one or more of such foreign countries.

(2) If there may have been such activity, review all findings in the report associated with those foreign countries to determine whether or not each such foreign country was determined to be in violation of its obligations undertaken in an arms control, nonproliferation, or disarmament agreement to which the United States is a party, or to be not adhering to its arms control, nonproliferation, or disarmament commitments in which the United States is a participating state. For clarity, in the annual report an explicit certification of non-compliance is equivalent to a determination of violation. However, the following statements in the annual report are not equivalent to a determination of violation:

- (i) An inability to certify compliance.
- (ii) An inability to conclude compliance.
- (iii) A statement about compliance concerns.

(3) If so, determine whether the Offeror or any person owned or controlled by the Offeror has engaged in any activity that contributed to or is a significant factor in the determination in the report that one or more of these foreign countries is in violation of its obligations undertaken in an arms control, nonproliferation, or disarmament agreement to which the United States is a party, or is not adhering to its arms control, nonproliferation, or disarmament commitments in which the United States is a participating state. Review the narrative for any such findings reflecting a determination of violation or non-adherence related to those foreign countries in the report, including the finding itself, and to the extent necessary, the conduct giving rise to the compliance or adherence concerns, the analysis of compliance or adherence concerns, and efforts to resolve compliance or adherence concerns.

(4) The Offeror may submit any questions with regard to this report by email to NDAA1290Cert@state.gov. To the extent feasible, the Department of State will respond to such email inquiries within 3 business days.

(d) Do not submit an offer unless—

- (1) A certification is provided in paragraph (b)(1) of this provision and submitted with the offer; or
- (2) In accordance with paragraph (b)(2) of this provision, the Offeror provides with its offer information that the President of the United States has—

- (i) Waived application under U.S.C. 2593e(d) or (e); or
- (ii) Determined under 22 U.S.C. 2593e(g)(2) that the entity has ceased all activities for which measures were imposed under 22 U.S.C.2593e(b).

(e) Remedies. The certification in paragraph (b)(1) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly submitted a false certification, in addition to other remedies available to the Government, such as suspension or debarment, the Contracting Officer may terminate any contract resulting from the false certification.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm fixed-price contract resulting from this solicitation.

(End of provision)

52.217-5 EVALUATION OF OPTIONS (JUL 1990)

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 option(s).

(End of Provision)

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
SEE ATTACHED	SEE ATTACHED

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is **Plaquemines Parish, Louisiana**.

(End of provision)

52.228-1 BID GUARANTEE (SEP 1996)

- (a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.
- (b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-
- (c) The amount of the bid guarantee shall be **twenty percent (20%)** of the bid price or **\$3,000,000.00**, whichever is less.-
- (d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-
- (e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of provision)

52.233-2 SERVICE OF PROTEST (SEP 2006)

- (a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from **Ione M. Cataldo, Contracting Officer, U.S. Army Corps of Engineers, ATTN: CEMVN-CT-E, 7400 Leake Avenue, New Orleans, LA 70118-3651, facsimile (504) 862-2889.**
- (b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

- (a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.
- (b) Site visits may be arranged during normal duty hours by contacting:

Name: **Mr. Charles Freeman, Area Engineer, New Orleans Area Office**
Address: **7400 Leake Avenue, New Orleans, LA 70118-3651**
Telephone: **504-862-1554**

(End of provision)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.acquisition.gov/>

<http://farsite.hill.af.mil/>

(End of provision)

NOTICE TO CONTRACTOR

This solicitation contains two sets of goals for minority participation in construction crafts on this contract. They are the New Orleans Hometown Plan and the New Orleans Standard Metropolitan Statistical Area (SMSA).

Contractor will determine the goals applicable to him by the following:

Hometown Plan applies only to those contractors who are signatory to the Hometown Plan and utilizing crafts signatory to the plan.

New Orleans Standard Metropolitan Statistical Area (SMSA) applies to all contractors in the New Orleans SMSA area not signatory to the Hometown Plan, or utilizing crafts not signatory to the plan.

Federal Register/Vol. 45, No. 194/Friday, October 3, 1980

SOLICITATION PROVISION
**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY**

The Bidder's attention is called to "EQUAL OPPORTUNITY" and "LOCAL AFFIRMATIVE ACTION PLAN" clauses of the contract.

The acceptable ranges of minority manpower utilization, expressed in percentage terms, are as follows:

<u>Timetables</u>	Goals for Minority Participation for <u>Each Trade</u>	Goals for Female Participation in <u>Each Trade</u>
Indefinitely	20% - 23 %	6.9%

The Bidder shall, within 5 days after a request therefor by the Contracting Officer of his duly authorized representative, submit the following information.

- (a) A list of the construction trades he intends to use, either directly or through subcontractors at any tier, in the performance of work covered by this solicitation;
- (b) A list of the labor organizations with which he has collective bargaining agreements and which are signatories to the Hometown Plan with respect to trades for which specific commitments to goals of minority manpower utilization are set forth in the Hometown Plan;
- (c) A list of the labor organizations with which he has collective bargaining agreements and which are not signatories to the Hometown Plan or which are signatories thereto but with respect to trades for which no specific commitments to goals of minority manpower utilization are set forth in the Hometown Plan, and
- (d) A list of all current construction work or contracts to which he is a party in any capacity in the covered area.

As used in this NOTICE and the contract to result from this solicitation:

(a) “Hometown Plan” or “Plan” means the NEW ORLEANS Plan, consisting of “An Agreement for Implementation of Employment of Minorities in the New Orleans Building Construction Industry.”

(b) “The covered area” means Orleans, Jefferson, St. Bernard, St. Tammany, St. Charles, St. John, Lafourche, Plaquemines, Washington, Terrebonne, Tangipahoa*, Livingston** and St. James*** Parishes, Louisiana.

(c) “Director, OFCC” means the Director, Office of Federal Contract Compliance, United States Department of Labor, or any person to whom he delegates authority; and

(d) “Minority” means Negro, Spanish-surnamed American, Oriental, and American Indian, and includes both men and women.

* Area covered is east of the Illinois Central Railroad.

** Area covered is southeast of the line from a point of the Livingston & Tangipahoa Parish line adjacent from New Orleans and Baton Rouge.

*** Area covered is southeast of a line drawn from the town of Gramercy to the point of intersection of St. James, Lafourche and Assumption Parishes.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY (APRIL 1984)**

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

	Goals for Minority Participation for Each Trade	Goals for Female Participation for Each Trade
SMSA Counties MS	19.2%	6.9%
SMSA Counties LA	31.0%	6.9%
Non-SMSA Counties	27.7%	6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in the geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed.

Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Program office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract. Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Director, Office of Federal Contract Compliance Programs, within 10 working days following award of a construction

subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notifications shall list the –

- (1) Name, address, and telephone number of the subcontractor;
 - (i) Employer identification number of the subcontractor;
- (2) Estimated dollar amount of the subcontract;
- (3) Estimated starting and completion dates of the subcontract; and
- (4) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the “covered area” is (FAR 52.222-23) Economic Area 113, New Orleans, LA as follows:

Standard Metropolitan Statistical Area

(SMSA) Counties:

0920 Biloxi – Gulfport, MS ----- 19.2%
MS Hancock; MS Harrison; MS Stone

5560 New Orleans, LA ----- 31.0%
LA Jefferson; LA Orleans; LA St. Bernard; LA St. Tammany

Non-Standard Metropolitan Statistical Area

(Non-SMSA) Counties ----- 27.7%

LA Assumption; LA Lafourche; LA Plaquemines; LA St. Charles; LA St. James; LA St. John the Baptist; LA Tangipahoa; LA Terrebonne; LA Washington; MS Forrest; MS Lamar; MS Marion; MS Pearl River; MS Perry; MS Pike; MS Walthall

U.S. Army Corps of Engineers, New Orleans District
Current Small Business Program Target Percentages
FY2018

SUBCONTRACTING

Small Business (SB)	51.57%
Small Disadvantaged Business (SDB)	16.00%
Women-Owned Small Business (WOSB/EDWOSB)	7.78%
HUBZone Small Business (HUBZone)	16.00%
Service-Disabled Veteran Small Business (SDVOSB)	6.28%

NOTE: The above figures are subject to change. Contact the New Orleans District Small Business Office for further information.

Section 00600 - Representations & Certifications

CLAUSED INCORPORATED BY REFERENCE

52.204-16	Commercial and Government Entity Code Reporting	JUL 2016
52.204-19	Incorporation by Reference of Representations and Certifications	Dec 2014
252.203-7005	Representation Relating to Compensation of Former DoD Officials	NOV 2011

CLAUSED INCORPORATED BY FULL TEXT

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2018)

- (a)(1) The North American Industry Classification System (NAICS) code for this acquisition is **237990**.
- (2) The small business size standard is **\$27,500,000.00**.
- (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b)(1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.
- (2) If the provision at 52.204-7 is not included in this solicitation, and the offeror is currently registered in System for Award Management (SAM), and has completed the Representations and Certifications section of SAM electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:
- () Paragraph (d) applies.
- () Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.
- (c) (1) The following representations or certifications in SAM are applicable to this solicitation as indicated:
- (i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—
- (A) The acquisition is to be made under the simplified acquisition procedures in Part 13;
- (B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or
- (C) The solicitation is for utility services for which rates are set by law or regulation.
- (ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.
- (iii) 52.203-18, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements--Representation. This provision applies to all solicitations.

- (iv) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the provision at 52.204-7, System for Award Management.
- (v) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—
- (A) Are not set aside for small business concerns;
 - (B) Exceed the simplified acquisition threshold; and
 - (C) Are for contracts that will be performed in the United States or its outlying areas.
- (vi) 52.209-2; Prohibition on Contracting with Inverted Domestic Corporations--Representation.
- (vii) 52.209-5; Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.
- (viii) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.
- (ix) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.
- (x) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.
- (xi) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.
- (A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.
 - (B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.
- (xii) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.
- (xiii) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.
- (xiv) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.
- (xv) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.
- (xvi) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.
- (xvii) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA-designated items.

(xviii) 52.223-22, Public Disclosure of Greenhouse Gas Emissions and Reduction Goals--Representation. This provision applies to solicitations that include the clause at 52.204-7.)

(xix) 52.225-2, Buy American Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xx) 52.225-4, Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225- 3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$80,317, the provision with its Alternate II applies.

(D) If the acquisition value is \$80,317 or more but is less than \$100,000, the provision with its Alternate III applies.

(xxi) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xxii) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan--Certification. This provision applies to all solicitations.

(xxiii) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran—Representation and Certification. This provision applies to all solicitations.

(xxiv) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions.

(2) The following representations or certifications are applicable as indicated by the Contracting Officer:

[Contracting Officer check as appropriate.]

(i) 52.204-17, Ownership or Control of Offeror.

(ii) 52.204-20, Predecessor of Offeror.

(iii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

(iv) 52.222-48, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Certification.

(v) 52.222-52 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Certification.

(vi) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

(vii) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

(viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the SAM website accessed through <https://www.acquisition.gov>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change
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Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.

(End of provision)

52.209-12 CERTIFICATION REGARDING TAX MATTERS (FEB 2016)

(a) This provision implements section 523 of Division B of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts.

(b) If the Offeror is proposing a total contract price that will exceed \$5,000,000 (including options), the Offeror shall certify that, to the best of its knowledge and belief, it--

- (1) Has [] filed all Federal tax returns required during the three years preceding the certification;
- (2) Has not [] been convicted of a criminal offense under the Internal Revenue Code of 1986; and
- (3) Has not [], more than 90 days prior to certification, been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.

(End of provision)

252.204-7007 ALTERNATE A, ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2015)

Substitute the following paragraphs (d) and (e) for paragraph (d) of the provision at FAR 52.204-8:

(d)(1) The following representations or certifications in the System for Award Management (SAM) database are applicable to this solicitation as indicated:

(i) 252.209-7003, Reserve Officer Training Corps and Military Recruiting on Campus--Representation. Applies to all solicitations with institutions of higher education.

(ii) 252.216-7008, Economic Price Adjustment--Wage Rates or Material Prices Controlled by a Foreign Government. Applies to solicitations for fixed-price supply and service contracts when the contract is to be performed wholly or in part in a foreign country, and a foreign government controls wage rates or material prices and may during contract performance impose a mandatory change in wages or prices of materials.

(iii) 252.222-7007, Representation Regarding Combating Trafficking in Persons, as prescribed in 222.1771. Applies to solicitations with a value expected to exceed the simplified acquisition threshold.

(iv) 252.225-7042, Authorization to Perform. Applies to all solicitations when performance will be wholly or in part in a foreign country.

(v) 252.225-7049, Prohibition on Acquisition of Commercial Satellite Services from Certain Foreign Entities--Representations. Applies to solicitations for the acquisition of commercial satellite services.

(vi) 252.225-7050, Disclosure of Ownership or Control by the Government of a Country that is a State Sponsor of Terrorism. Applies to all solicitations expected to result in contracts of \$150,000 or more.

(vii) 252.229-7012, Tax Exemptions (Italy)--Representation. Applies to solicitations when contract performance will be in Italy.

(viii) 252.229-7013, Tax Exemptions (Spain)--Representation. Applies to solicitations when contract performance will be in Spain.

(ix) 252.247-7022, Representation of Extent of Transportation by Sea. Applies to all solicitations except those for direct purchase of ocean transportation services or those with an anticipated value at or below the simplified acquisition threshold.

(2) The following representations or certifications in SAM are applicable to this solicitation as indicated by the Contracting Officer: [Contracting Officer check as appropriate.]

___ (i) 252.209-7002, Disclosure of Ownership or Control by a Foreign Government.

XXX (ii) 252.225-7000, Buy American--Balance of Payments Program Certificate.

___ (iii) 252.225-7020, Trade Agreements Certificate.

___ Use with Alternate I.

XXX (iv) 252.225-7031, Secondary Arab Boycott of Israel.

___ (v) 252.225-7035, Buy American--Free Trade Agreements--Balance of Payments Program Certificate.

___ Use with Alternate I.

___ Use with Alternate II.

___ Use with Alternate III.

___ Use with Alternate IV.

____ Use with Alternate V.

(e) The offeror has completed the annual representations and certifications electronically via the SAM Web site at <https://www.acquisition.gov/>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in FAR 52.204-8(c) and paragraph (d) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer, and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below ____ [offeror to insert changes, identifying change by provision number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR/DFARS Clause #	Title	Date	Change

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications located in the SAM database.

(End of provision)

Section 00700 - Contract Clauses

CLAUSED INCORPORATED BY REFERENCE

52.202-1	Definitions	NOV 2013
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	MAY 2014
52.203-7	Anti-Kickback Procedures	MAY 2014
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	MAY 2014
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	MAY 2014
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	APR 2014
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements	JAN 2017
52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	MAY 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	OCT 2016
52.204-13	System for Award Management Maintenance	OCT 2016
52.204-18	Commercial and Government Entity Code Maintenance	JUL 2016
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities.	JUL 2018
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	OCT 2015
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	JUL 2013
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.211-13	Time Extensions	SEP 2000
52.211-18	Variation in Estimated Quantity	APR 1984
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	OCT 2014
52.219-8	Utilization of Small Business Concerns	NOV 2016
52.219-9 Alt I (Dev)	Small Business Subcontracting Plan (Deviation 2018-O0018) - Alternate I	AUG 2018
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards - Overtime Compensation	MAY 2018
52.222-6	Construction Wage Rate Requirements	AUG 2018
52.222-7	Withholding of Funds	MAY 2014
52.222-8	Payrolls and Basic Records	AUG 2018
52.222-9	Apprentices and Trainees	JUL 2005
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	MAY 2014
52.222-12	Contract Termination-Debarment	MAY 2014
52.222-13	Compliance With Construction Wage Rate Requirements and Related Regulations	MAY 2014
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	MAY 2014
52.222-21	Prohibition Of Segregated Facilities	APR 2015
52.222-26	Equal Opportunity	SEP 2016

52.222-27	Affirmative Action Compliance Requirements for Construction	APR 2015
52.222-35	Equal Opportunity for Veterans	OCT 2015
52.222-36	Equal Opportunity for Workers with Disabilities	JUL 2014
52.222-37	Employment Reports on Veterans	FEB 2016
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	DEC 2010
52.222-50	Combating Trafficking in Persons	MAR 2015
52.222-54	Employment Eligibility Verification	OCT 2015
52.222-55	Minimum Wages Under Executive Order 13658	DEC 2015
52.222-62	Paid Sick Leave Under Executive Order 13706	JAN 2017
52.223-2	Affirmative Procurement of Biobased Products Under Service and Construction Contracts	SEP 2013
52.223-6	Drug-Free Workplace	MAY 2001
52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	AUG 2011
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.228-2	Additional Bond Security	OCT 1997
52.228-11	Pledges Of Assets	AUG 2018
52.228-12	Prospective Subcontractor Requests for Bonds	MAY 2014
52.228-15	Performance and Payment Bonds--Construction	OCT 2010
52.229-3	Federal, State And Local Taxes	FEB 2013
52.232-5	Payments under Fixed-Price Construction Contracts	MAY 2014
52.232-17	Interest	MAY 2014
52.232-23	Assignment Of Claims	MAY 2014
52.232-27	Prompt Payment for Construction Contracts	JAN 2017
52.232-33	Payment by Electronic Funds Transfer--System for Award Management	JUL 2013
52.232-39	Unenforceability of Unauthorized Obligations	JUN 2013
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	DEC 2013
52.233-1	Disputes	MAY 2014
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13 Alt I	Accident Prevention (Nov 1991) - Alternate I	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-16 Alt I	Quantity Surveys (Apr 1984) - Alternate I	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-26	Preconstruction Conference	FEB 1995
52.242-5	Payments to Small Business Subcontractors	JAN 2017
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.243-4	Changes	JUN 2007
52.244-2	Subcontracts	OCT 2010
52.244-6	Subcontracts for Commercial Items	AUG 2018
52.246-12	Inspection of Construction	AUG 1996

52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (Apr 2012) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	SEP 2013
252.203-7003	Agency Office of the Inspector General	DEC 2012
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7006	Billing Instructions	OCT 2005
252.204-7015	Notice of Authorized Disclosure of Information for Litigation Support	MAY 2016
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Country that is a State Sponsor of Terrorism	OCT 2015
252.219-7003	Small Business Subcontracting Plan (DOD Contracts)	APR 2018
252.222-7006	Restrictions on the Use of Mandatory Arbitration Agreements	DEC 2010
252.223-7004	Drug Free Work Force	SEP 1988
252.225-7001	Buy American And Balance Of Payments Program-- Basic	DEC 2017
252.225-7002	Qualifying Country Sources As Subcontractors	DEC 2017
252.225-7048	Export-Controlled Items	JUN 2013
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	SEP 2004
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	JUN 2012
252.232-7010	Levies on Contract Payments	DEC 2006
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.236-7001	Contract Drawings, and Specifications	AUG 2000
252.242-7004	Material Management And Accounting System	MAY 2011
252.242-7006	Accounting System Administration	FEB 2012
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	DEC 2012
252.244-7000	Subcontracts for Commercial Items	JUN 2013

CLAUSES INCORPORATED BY FULL TEXT

52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT (OCT 2015)

(a) Definitions. As used in this clause--

Agent means any individual, including a director, an officer, an employee, or an independent Contractor, authorized to act on behalf of the organization.

Full cooperation—

(1) Means disclosure to the Government of the information sufficient for law enforcement to identify the nature and extent of the offense and the individuals responsible for the conduct. It includes providing timely and complete response to Government auditors' and investigators' request for documents and access to employees with information;

(2) Does not foreclose any Contractor rights arising in law, the FAR, or the terms of the contract. It does not require-

(i) A Contractor to waive its attorney-client privilege or the protections afforded by the attorney work product doctrine; or

(ii) Any officer, director, owner, or employee of the Contractor, including a sole proprietor, to waive his or her attorney client privilege or Fifth Amendment rights; and

(3) Does not restrict a Contractor from--

(i) Conducting an internal investigation; or

(ii) Defending a proceeding or dispute arising under the contract or related to a potential or disclosed violation.

Principal means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

Subcontract means any contract entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract.

Subcontractor means any supplier, distributor, vendor, or firm that furnished supplies or services to or for a prime contractor or another subcontractor.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Code of business ethics and conduct. (1) Within 30 days after contract award, unless the Contracting Officer establishes a longer time period, the Contractor shall--

(i) Have a written code of business ethics and conduct;

(ii) Make a copy of the code available to each employee engaged in performance of the contract.

(2) The Contractor shall--

(i) Exercise due diligence to prevent and detect criminal conduct; and

(ii) Otherwise promote an organizational culture that encourages ethical conduct and a commitment to compliance with the law.

(3)(i) The Contractor shall timely disclose, in writing, to the agency Office of the Inspector General (OIG), with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of this contract or any subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed--

(A) A violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the United States Code; or

(B) A violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(ii) The Government, to the extent permitted by law and regulation, will safeguard and treat information obtained pursuant to the Contractor's disclosure as confidential where the information has been marked "confidential" or "proprietary" by the company. To the extent permitted by law and regulation, such information will not be released by the Government to the public pursuant to a Freedom of Information Act request, 5 U.S.C. Section 552, without prior notification to the Contractor. The Government may transfer documents provided by the Contractor to any department or agency within the Executive Branch if the information relates to matters within the organization's jurisdiction.

(iii) If the violation relates to an order against a Government-wide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the Contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract.

(c) Business ethics awareness and compliance program and internal control system. This paragraph (c) does not apply if the Contractor has represented itself as a small business concern pursuant to the award of this contract or if this contract is for the acquisition of a commercial item as defined at FAR 2.101. The Contractor shall establish the following within 90 days after contract award, unless the Contracting Officer establishes a longer time period:

(1) An ongoing business ethics awareness and compliance program.

(i) This program shall include reasonable steps to communicate periodically and in a practical manner the Contractor's standards and procedures and other aspects of the Contractor's business ethics awareness and compliance program and internal control system, by conducting effective training programs and otherwise disseminating information appropriate to an individual's respective roles and responsibilities.

(ii) The training conducted under this program shall be provided to the Contractor's principals and employees, and as appropriate, the Contractor's agents and subcontractors.

(2) An internal control system.

(i) The Contractor's internal control system shall--

(A) Establish standards and procedures to facilitate timely discovery of improper conduct in connection with Government contracts; and

(B) Ensure corrective measures are promptly instituted and carried out.

(ii) At a minimum, the Contractor's internal control system shall provide for the following:

(A) Assignment of responsibility at a sufficiently high level and adequate resources to ensure effectiveness of the business ethics awareness and compliance program and internal control system.

(B) Reasonable efforts not to include an individual as a principal, whom due diligence would have exposed as having engaged in conduct that is in conflict with the Contractor's code of business ethics and conduct.

(C) Periodic reviews of company business practices, procedures, policies, and internal controls for compliance with the Contractor's code of business ethics and conduct and the special requirements of Government contracting, including--

(1) Monitoring and auditing to detect criminal conduct;

(2) Periodic evaluation of the effectiveness of the business ethics awareness and compliance program and internal control system, especially if criminal conduct has been detected; and

(3) Periodic assessment of the risk of criminal conduct, with appropriate steps to design, implement, or modify the business ethics awareness and compliance program and the internal control system as necessary to reduce the risk of criminal conduct identified through this process.

(D) An internal reporting mechanism, such as a hotline, which allows for anonymity or confidentiality, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(E) Disciplinary action for improper conduct or for failing to take reasonable steps to prevent or detect improper conduct.

(F) Timely disclosure, in writing, to the agency OIG, with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of any Government contract performed by the Contractor or a subcontractor thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed a violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 U.S.C. or a violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(1) If a violation relates to more than one Government contract, the Contractor may make the disclosure to the agency OIG and Contracting Officer responsible for the largest dollar value contract impacted by the violation.

(2) If the violation relates to an order against a Government-wide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract, and the respective agencies' contracting officers.

(3) The disclosure requirement for an individual contract continues until at least 3 years after final payment on the contract.

(4) The Government will safeguard such disclosures in accordance with paragraph (b)(3)(ii) of this clause.

(G) Full cooperation with any Government agencies responsible for audits, investigations, or corrective actions.

(d) Subcontracts.

(1) The Contractor shall include the substance of this clause, including this paragraph (d), in subcontracts that have a value in excess of \$5.5 million and a performance period of more than 120 days.

(2) In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

(End of clause)

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within **5 (five)** calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than **the days specified by bid lot in Section 00010-1.5 of the bidding schedule, after the date of receipt by Contractor of notice to proceed.**

(End of clause)

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 **three days prior to the estimated completion date of the base line item or any previously exercised option.** 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)

Note: The word "schedule" in this clause refers to the bidding schedule.

52.225-9 BUY AMERICAN—CONSTRUCTION MATERIALS (MAY 2014)

(a) Definitions. As used in this clause--

Commercially available off-the-shelf (COTS) item—

(1) Means any item of supply (including construction material) that is--

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4) such as agricultural products and petroleum products.

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if--

(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic; or

(ii) The construction material is a COTS item.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference.

(1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American Statute is waived for construction material that is a COTS item. (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to information technology that is a commercial item or to the construction materials or components listed by the Government as follows:

NONE

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars)\1\

Item 1			
Foreign construction material....
Domestic construction material...
Item 2			
Foreign construction material....
Domestic construction material...

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.228-14 IRREVOCABLE LETTER OF CREDIT (NOV 2014)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to 40 U.S.C. chapter 31, subchapter III, Bonds, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d)(1) Only federally insured financial institutions rated investment grade by a commercial rating service shall issue or confirm the ILC.

(2) Unless the financial institution issuing the ILC had letter of credit business of at least \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of at least \$25 million in the past year.

(3) The Offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institutions have the required credit rating as of the date of issuance of the ILC.

(4) The current rating for a financial institution is available through any of the following rating services registered with the U.S. Securities and Exchange Commission (SEC) as a Nationally Recognized Statistical Rating Organization (NRSRO). NRSRO's can be located at the Web site <http://www.sec.gov/answers/nrsro.htm> maintained by the SEC.

(e) The following format shall be used by the issuing financial institution to create an ILC:

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _ _ _ _

IRREVOCABLE LETTER OF CREDIT NO. ____

Account party's name ____ _

Account party's address ____ _

For Solicitation No. **W912P819B0005** (for reference only)

TO: **Department of the Army**
Corps of Engineers, New Orleans District

7400 Leake Ave.
New Orleans, LA 70118

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$ ____ . This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [____ issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on ____ , or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. ____ -- (Insert version in effect at the time of ILC issuance, e.g., "Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of ____ --[State of confirming financial institution, if any, otherwise State of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[____ Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

____ [Confirming Financial Institution's Letterhead or Name and Address]

(Date) ____

Our Letter of Credit Advice Number ____

Beneficiary: ____ [U.S. Government agency]

Issuing Financial Institution: ____

Issuing Financial Institution's LC No.: ____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by ____ [name of issuing financial institution] for drawings of up to United States dollars ____ /U.S. \$ ____ and expiring with our close of business on ____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at ____ .

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. ____ -- (Insert version in effect at the time of ILC issuance, e.g., ``Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of ____ --[State of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

[City, State]

(Date) ____

[Name and address of financial institution]

Pay to the order of ____ [Beneficiary Agency] ____ the sum of United States ____ This draft is drawn under Irrevocable Letter of Credit No. ____

____ [Beneficiary Agency]

By: ____

(End of clause)

52.232-16 PROGRESS PAYMENTS (APR 2012)

The Government will make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly, in amounts of \$2,500 or more approved by the Contracting Officer, under the following conditions:

(a) Computation of amounts. (1) Unless the Contractor requests a smaller amount, the Government will compute each progress payment as 80 percent of the Contractor's total costs incurred under this contract whether or not actually paid, plus financing payments to subcontractors (see paragraph (j) of this clause), less the sum of all previous progress payments made by the Government under this contract. The Contracting Officer will consider cost of money that would be allowable under FAR 31.205-10 as an incurred cost for progress payment purposes.

(2) The amount of financing and other payments for supplies and services purchased directly for the contract are limited to the amounts that have been paid by cash, check, or other forms of payment, or that are determined due and will be paid to subcontractors--

(i) In accordance with the terms and conditions of a subcontract or invoice; and

(ii) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government.

(3) The Government will exclude accrued costs of Contractor contributions under employee pension plans until actually paid unless--

(i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and

(ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's total costs for progress payments until paid).

(4) The Contractor shall not include the following in total costs for progress payment purposes in paragraph (a)(1) of this clause:

(i) Costs that are not reasonable, allocable to this contract, and consistent with sound and generally accepted accounting principles and practices.

(ii) Costs incurred by subcontractors or suppliers.

(iii) Costs ordinarily capitalized and subject to depreciation or amortization except for the properly depreciated or amortized portion of such costs.

(iv) Payments made or amounts payable to subcontractors or suppliers, except for --

(A) Completed work, including partial deliveries, to which the Contractor has acquired title; and

(B) Work under cost-reimbursement or time-and-material subcontracts to which the Contractor has acquired title.

(5) The amount of unliquidated progress payments may exceed neither (i) the progress payments made against incomplete work (including allowable unliquidated progress payments to subcontractors) nor

(ii) the value, for progress payment purposes, of the incomplete work. Incomplete work shall be considered to be the supplies and services required by this contract, for which delivery and invoicing by the Contractor and acceptance by the Government are incomplete.

(6) The total amount of progress payments shall not exceed 80 percent of the total contract price.

(7) If a progress payment or the unliquidated progress payments exceed the amounts permitted by subparagraphs (a)(4) or (a)(5) of this clause, the Contractor shall repay the amount of such excess to the Government on demand.

(8) Notwithstanding any other terms of the contract, the Contractor agrees not to request progress payments in dollar amounts of less than \$2,500. The Contracting Officer may make exceptions.

(9) The costs applicable to items delivered, invoiced, and accepted shall not include costs in excess of the contract price of the items.

(b) Liquidation. Except as provided in the Termination for Convenience of the Government clause, all progress payments shall be liquidated by deducting from any payment under this contract, other than advance or progress payments, the unliquidated progress payments, or 80 percent of the amount invoiced, whichever is less. The Contractor shall repay to the Government any amounts required by a retroactive price reduction, after computing liquidations and payments on past invoices at the reduced prices and adjusting the unliquidated progress payments accordingly. The Government reserves the right to unilaterally change from the ordinary liquidation rate to an alternate rate when deemed appropriate for proper contract financing.

(c) Reduction or suspension. The Contracting Officer may reduce or suspend progress payments, increase the rate of liquidation, or take a combination of these actions, after finding on substantial evidence any of the following conditions:

(1) The Contractor failed to comply with any material requirement of this contract (which includes paragraphs (f) and (g) of this clause).

(2) Performance of this contract is endangered by the Contractor's --

(i) Failure to make progress or

(ii) Unsatisfactory financial condition.

(3) Inventory allocated to this contract substantially exceeds reasonable requirements.

(4) The Contractor is delinquent in payment of the costs of performing this contract in the ordinary course of business.

(5) The fair value of the undelivered work is less than the amount of unliquidated progress payments for that work.

(6) The Contractor is realizing less profit than that reflected in the establishment of any alternate liquidation rate in paragraph (b) of this clause, and that rate is less than the progress payment rate stated in subparagraph (a)(1) of this clause.

(d) Title.

(1) Title to the property described in this paragraph (d) shall vest in the Government. Vestiture shall be immediately upon the date of this contract, for property acquired or produced before that date. Otherwise, vestiture shall occur when the property is or should have been allocable or properly chargeable to this contract.

(2) "Property," as used in this clause, includes all of the below-described items acquired or produced by the Contractor that are or should be allocable or properly chargeable to this contract under sound and generally accepted accounting principles and practices.

(i) Parts, materials, inventories, and work in process;

(ii) Special tooling and special test equipment to which the Government is to acquire title;

(iii) Nondurable (i.e., noncapital) tools, jigs, dies, fixtures, molds, patterns, taps, gauges, test equipment, and other

similar manufacturing aids, title to which would not be obtained as special tooling under paragraph (d) (2)(ii) of this clause; and

(iv) Drawings and technical data, to the extent the Contractor or subcontractors are required to deliver them to the Government by other clauses of this contract.

(3) Although title to property is in the Government under this clause, other applicable clauses of this contract; e.g., the termination clauses, shall determine the handling and disposition of the property.

(4) The Contractor may sell any scrap resulting from production under this contract without requesting the Contracting Officer's approval, but the proceeds shall be credited against the costs of performance.

(5) To acquire for its own use or dispose of property to which title is vested in the Government under this clause, the Contractor must obtain the Contracting Officer's advance approval of the action and the terms. The Contractor shall (i) exclude the allocable costs of the property from the costs of contract performance, and (ii) repay to the Government any amount of unliquidated progress payments allocable to the property. Repayment may be by cash or credit memorandum.

(6) When the Contractor completes all of the obligations under this contract, including liquidation of all progress payments, title shall vest in the Contractor for all property (or the proceeds thereof) not--

(i) Delivered to, and accepted by, the Government under this contract; or

(ii) Incorporated in supplies delivered to, and accepted by, the Government under this contract and to which title is vested in the Government under this clause.

(7) The terms of this contract concerning liability for Government-furnished property shall not apply to property to which the Government acquired title solely under this clause.

(e) Risk of loss. Before delivery to and acceptance by the Government, the Contractor shall bear the risk of loss for property, the title to which vests in the Government under this clause, except to the extent the Government expressly assumes the risk. The Contractor shall repay the Government an amount equal to the unliquidated progress payments that are based on costs allocable to property that is lost (see 45.101).

(f) Control of costs and property. The Contractor shall maintain an accounting system and controls adequate for the proper administration of this clause.

(g) Reports, forms, and access to records. (1) The Contractor shall promptly furnish reports, certificates, financial statements, and other pertinent information (including estimates to complete) reasonably requested by the Contracting Officer for the administration of this clause. Also, the Contractor shall give the Government reasonable opportunity to examine and verify the Contractor's books, records, and accounts.

(2) The Contractor shall furnish estimates to complete that have been developed or updated within six months of the date of the progress payment request. The estimates to complete shall represent the Contractor's best estimate of total costs to complete all remaining contract work required under the contract. The estimates shall include sufficient detail to permit Government verification.

(3) Each Contractor request for progress payment shall:

(i) Be submitted on Standard Form 1443, Contractor's Request for Progress Payment, or the electronic equivalent as required by agency regulations, in accordance with the form instructions and the contract terms; and

(ii) Include any additional supporting documentation requested by the Contracting Officer.

(h) Special terms regarding default. If this contract is terminated under the Default clause, (i) the Contractor shall, on demand, repay to the Government the amount of unliquidated progress payments and (ii) title shall vest in the

Contractor, on full liquidation of progress payments, for all property for which the Government elects not to require delivery under the Default clause. The Government shall be liable for no payment except as provided by the Default clause.

(i) Reservations of rights.

(1) No payment or vesting of title under this clause shall --

(i) Excuse the Contractor from performance of obligations under this contract or

(ii) Constitute a waiver of any of the rights or remedies of the parties under the contract.

(2) The Government's rights and remedies under this clause

(i) Shall not be exclusive but rather shall be in addition to any other rights and remedies provided by law or this contract and

(ii) Shall not be affected by delayed, partial, or omitted exercise of any right, remedy, power, or privilege, nor shall such exercise or any single exercise preclude or impair any further exercise under this clause or the exercise of any other right, power, or privilege of the Government.

(j) Financing payments to subcontractors. The financing payments to subcontractors mentioned in paragraphs (a)(1) and (a)(2) of this clause shall be all financing payments to subcontractors or divisions, if the following conditions are met:

(1) The amounts included are limited to--

(i) The unliquidated remainder of financing payments made; plus

(ii) Any unpaid subcontractor requests for financing payments.

(2) The subcontract or interdivisional order is expected to involve a minimum of approximately 6 months between the beginning of work and the first delivery; or, if the subcontractor is a small business concern, 4 months.

(3) If the financing payments are in the form of progress payments, the terms of the subcontract or interdivisional order concerning progress payments--

(i) Are substantially similar to the terms of this clause for any subcontractor that is a large business concern, or this clause with its Alternate I for any subcontractor that is a small business concern;

(ii) Are at least as favorable to the Government as the terms of this clause;

(iii) Are not more favorable to the subcontractor or division than the terms of this clause are to the Contractor;

(iv) Are in conformance with the requirements of FAR 32.504(e); and

(v) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if--

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(4) If the financing payments are in the form of performance-based payments, the terms of the subcontract or interdivisional order concerning payments--

(i) Are substantially similar to the Performance-Based Payments clause at FAR 52.232-32 and meet the criteria for, and definition of, performance-based payments in FAR Part 32;

(ii) Are in conformance with the requirements of FAR 32.504(f); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if--

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(5) If the financing payments are in the form of commercial item financing payments, the terms of the subcontract or interdivisional order concerning payments--

(i) Are constructed in accordance with FAR 32.206(c) and included in a subcontract for a commercial item purchase that meets the definition and standards for acquisition of commercial items in FAR Parts 2 and 12;

(ii) Are in conformance with the requirements of FAR 32.504(g); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if--

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(6) If financing is in the form of progress payments, the progress payment rate in the subcontract is the customary rate used by the contracting agency, depending on whether the subcontractor is or is not a small business concern.

(7) Concerning any proceeds received by the Government for property to which title has vested in the Government under the subcontract terms, the parties agree that the proceeds shall be applied to reducing any unliquidated financing payments by the Government to the Contractor under this contract.

(8) If no unliquidated financing payments to the Contractor remain, but there are unliquidated financing payments that the Contractor has made to any subcontractor, the Contractor shall be subrogated to all the rights the Government obtained through the terms required by this clause to be in any subcontract, as if all such rights had been assigned and transferred to the Contractor.

(9) To facilitate small business participation in subcontracting under this contract, the Contractor shall provide financing payments to small business concerns, in conformity with the standards for customary contract financing payments stated in Subpart 32.113. The Contractor shall not consider the need for such financing payments as a handicap or adverse factor in the award of subcontracts.

(k) Limitations on undefinitized contract actions. Notwithstanding any other progress payment provisions in this contract, progress payments may not exceed 80 percent of costs incurred on work accomplished under undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes. This limitation shall apply to the costs incurred, as computed in accordance with paragraph (a) of this clause, and shall remain in effect until the contract action is definitized. Costs incurred which are subject to this limitation shall be segregated on Contractor progress payment requests and invoices from those costs eligible for higher progress payment rates. For purposes of progress payment liquidation, as described in paragraph (b) of this clause, progress payments for undefinitized contract actions shall be liquidated at 80 percent of the amount invoiced for work performed under the undefinitized contract action as long as the contract action remains undefinitized. The amount of unliquidated progress payments for undefinitized contract

actions shall not exceed 80 percent of the maximum liability of the Government under the undefinitized contract action or such lower limit specified elsewhere in the contract. Separate limits may be specified for separate actions.

(l) Due date. The designated payment office will make progress payments on the **14th** day after the designated billing office receives a proper progress payment request. In the event that the Government requires an audit or other review of a specific progress payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date. Progress payments are considered contract financing and are not subject to the interest penalty provisions of the Prompt Payment Act.

(m) Progress payments under indefinite--delivery contracts. The Contractor shall account for and submit progress payment requests under individual orders as if the order constituted a separate contract, unless otherwise specified in this contract.

(End of clause)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least **twenty percent (20%)** of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(End of clause)

Note 1: For the purpose of this contract, the Contractor shall layout the work from the Government established channel centerline and gages in lieu of baselines and benchmarks. These gages are located in the paragraph entitled "Gages" in Section 35 20 23.23.

Note 2: For these specifications, there are no contract drawings. Refer to the dredging section(s) for contract plates.

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.acquisition.gov>
<http://farsite.hill.af.mil/>

(End of clause)

252.203-7004 DISPLAY OF HOTLINE POSTERS (OCT 2016)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) Display of hotline poster(s).

(1)(i) The Contractor shall display prominently the DoD fraud, waste, and abuse hotline poster prepared by the DoD Office of the Inspector General, in effect at time of contract award, in common work areas within business segments performing work under Department of Defense (DoD) contracts.

(ii) For contracts performed outside the United States, when security concerns can be appropriately demonstrated, the contracting officer may provide the contractor the option to publicize the program to contractor personnel in a manner other than public display of the poster, such as private employee written instructions and briefings.

(2) If the contract is funded, in whole or in part, by Department of Homeland Security (DHS) disaster relief funds and the work is to be performed in the United States, the DHS fraud hotline poster shall be displayed in addition to the DoD hotline poster. If a display of a DHS fraud hotline poster is required, the Contractor may obtain such poster from--

(i) DHS Office of Inspector General/MAIL STOP 0305, Attn: Office of Investigations--Hotline, 245 Murray Lane SW., Washington, DC 20528-0305; or

(ii) Via the Internet at https://www.oig.dhs.gov/assets/Hotline/DHS_OIG_Hotline-optimized.jpg.

(c)(1) The DoD hotline poster may be obtained from: Defense Hotline, The Pentagon, Washington, DC 20301-1900, or is also available via the internet at http://www.dodig.mil/hotline/hotline_posters.htm.

(2) If a significant portion of the employee workforce does not speak English, then the poster is to be displayed in the foreign languages that a significant portion of the employees speak.

(3) Additionally, if the Contractor maintains a company Web site as a method of providing information to employees, the Contractor shall display an electronic version of the required poster at the Web site.

(d) Subcontracts. The Contractor shall include this clause, including this paragraph (d), in all subcontracts that exceed \$5.5 million except when the subcontract is for the acquisition of a commercial item.

(End of clause)

252.236-7002 OBSTRUCTION OF NAVIGABLE WATERWAYS (DEC 1991)

(a) The Contractor shall—

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may—

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et.seq.).

(End of clause)

252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)

(a) The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) **Sixty percent (60%)** of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining **forty percent (40%)** upon completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs (a) (1) and (2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of --

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization; and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

(End of clause)

Note: The term "lump sum" is synonymous with the unit of measure "job", as stated on the bid schedules and throughout the specifications.

UAI 5152.222-9000 CONTRACTOR SUPPLY AND USE OF ELECTRONIC SOFTWARE FOR PROCESSING WAGE RATE REQUIREMENTS STATUTE CERTIFIED LABOR PAYROLLS (APR 2011)

(a) The contractor is encouraged to use a commercially-available electronic system to process and submit certified payrolls electronically to the Government. The requirements for preparing, processing and providing certified labor payrolls are established by the Wage Rate Requirements statute.

(b) If the contractor elects to use an electronic payroll processing system, then the contractor shall be responsible for obtaining and providing for all access, licenses, and other services required to provide for receipt, processing, certifying, electronically transmitting to the Government, and storing weekly payrolls and other data required for the contractor to comply with the Wage Rate Requirements statute. When the contractor uses an electronic payroll system, the electronic payroll service shall be used by the contractor to prepare, process, and maintain the relevant

payrolls and basic records during all work under this construction contract and the electronic payroll service shall be capable of preserving these payrolls and related basic records for the required 3 years after contract completion. If the contractor chooses to use an electronic payroll system, then the contractor shall obtain and provide electronic system access to the Government, as required to comply with the Wage Rate Requirements over the duration of this construction contract. The access shall include electronic review access by the Government contract administration office to the electronic payroll processing system used by the contractor.

(c) The contractor's provision and use of an electronic payroll processing system shall meet the following basic functional criteria:

- (1) commercially available;
 - (2) compliant with appropriate Wage Rate Requirements statute payroll provisions in the Federal Acquisition Regulation (FAR);
 - (3) able to accommodate the required numbers of employees and subcontractors planned to be employed under the contract;
 - (4) capable of producing an Excel spreadsheet-compatible electronic output of weekly payroll records for export in an Excel spreadsheet to be imported into the contractor's Quality Control System (QCS) version of Resident Management System (RMS), that in turn shall export payroll data to the Government's RMS;
 - (5) demonstrated security of data and data entry rights;
 - (6) ability to produce contractor-certified electronic versions of weekly payroll data;
 - (7) ability to identify erroneous entries and track the date/time of all versions of the certified Wage Rate Requirements statute payrolls submitted to the government over the life of the contract;
 - (8) capable of generating a durable record copy, that is, a CD or DVD and PDF file record of data from the system database at end of the contract closeout. This durable record copy of data from the electronic payroll processing system shall be provided to the Government during contract closeout.
- (d) All contractor-incurred costs related to the contractor's provision and use of an electronic payroll processing service shall be included in the contractor's price for the overall work under the contract. The costs for compliance with the Wage Rate Requirements statute by using electronic payroll processing services shall not be a separately bid or reimbursed item under this contract.

(End of clause)

UAI 5152.236-9009 PARTNERING (FEB 2000)

In order to most effectively accomplish this contract, the Government proposes to form a partnership with the Contractor to develop a cohesive building team. It is anticipated that this partnership would involve the **Project Development Team (PDT)**, the Contractor, primary subcontractors and designers, and the Corps of Engineers. This partnership would strive to develop a cooperative management team drawing on the strengths of each team member in an effort to achieve a quality project within budget and on schedule. This partnership would be bilateral in membership and participation will be completely voluntary. Any cost associated with effectuating this partnership, excluding travel and lodging cost of Government personnel, will be borne by **the individual parties**. The partnering meetings shall be held **at a place and time as agreed upon by all concerned parties**.

(End of clause)

UAI 5152.249-9000 BASIS FOR SETTLEMENT OF PROPOSALS

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under Federal Acquisition Regulation (FAR) 49.206-2(b). In evaluating a termination settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

- (a) Actual costs for each piece of equipment, or groups of similar serial or series equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.
- (b) If equipment costs have been allocated to a contract using predetermined rates, those charges will be adjusted to actual costs.
- (c) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.
- (d) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of Federal Acquisition Regulation (FAR) 31.205-11).
- (e) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(End of clause)

W912P819B0005 FY2018 Wage Rate Determination

General Decision Number: LA180011 01/05/2018 LA11

Superseded General Decision Number: LA20170011

State: Louisiana

Construction Type: Heavy Dredging

Counties: Louisiana Statewide.

DREDGING PROJECTS ALONG THE GULF COAST AREA INCLUDING THE MISSISSIPPI RIVER AND ITS TRIBUTARIES TO THE OHIO RIVER

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2018

* SULA1994-001 04/01/1994

	Rates	Fringes
Derrick Operator.....	\$ 7.25	
Dozer Operator.....	\$ 7.25	
Dredge 16" and Over		
Deckhand.....	\$ 7.25	
Dredge tender operator.....	\$ 7.25	
Fireman.....	\$ 7.25	
First assistant engineer....	\$ 7.25	
Leverman.....	\$ 7.25	
Oiler.....	\$ 7.25	
Second assistant engineer...	\$ 7.25	
Shoreman.....	\$ 7.25	
Third assistant engineer....	\$ 7.25	
Truck driver.....	\$ 7.25	
Welder.....	\$ 7.25	

W912P819B0005 FY2018 Wage Rate Determination

Dredge Under 16"		
Deckhand.....	\$ 7.25	
Dredge tender operator.....	\$ 7.25	
Leverman.....	\$ 7.25	
Oiler.....	\$ 7.25	
Welder.....	\$ 7.25	
Hydraulic Dredging		
First cook.....	\$ 7.25	
Handyman.....	\$ 7.25	
Janitor, cabin person.....	\$ 7.25	
Second cook.....	\$ 7.25	
Marsh Buggy Dragline, Oiler.....	\$ 7.25	
Marsh Buggy Dragline, Operator...	\$ 7.25	
Self-Propelled Hopper Dredge, Drag Tender.....	\$ 9.70	3.45+a

FOOTNOTE: Fourteen paid vacation days and eight paid holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day & Christmas Day provided the employee has one year of service.

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

W912P819B0005 FY2018 Wage Rate Determination

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010

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08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

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

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

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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

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

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

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

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material,

W912P819B0005 FY2018 Wage Rate Determination

etc.) that the requestor considers relevant to the issue.

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

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

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

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END OF GENERAL DECISION

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SECTION 00800

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CONTRACTS (UAI 5122.1302-100)

-- End of Section Table of Contents --

SECTION 00800

SUPPLEMENTARY CONDITIONS

PART 1 GENERAL

1.1 SCOPE

This section includes supplements to the Federal Acquisition Regulations (FAR) requirements. Also included are applicable Department of Defense supplements (DFARS) and USACE Acquisition Instruction (UAI) to the FAR.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 DELIVERY OF PLANT

a. Delivery of the dredge and attendant plant shall be completed within 120 hours after receipt by the Contractor of the Notice to Proceed. For bidding purposes, the delivery site will be the Mississippi River, Head of Passes, mile 0.0; however, the starting assignment for the dredge may require initial mobilization to any location within the primary or secondary dredging region, for which an equitable adjustment will be made for any additional costs under the contract clause entitled "Changes" (FAR 52.243-4). Upon arrival of the dredge and all of the attendant plant at the delivery site, the plant may be inspected by Government personnel to determine whether any deficiencies have developed since the time the plant was brought into compliance pursuant to the pre-award inspection. The Contractor will be notified of acceptance or rejection of the plant. If accepted, the dredge will be given an assignment immediately.

b. The Contracting Officer may waive the requirement for the Pre-award Inspection of Plant listed in the Bid Form Notes. Such waiver does not affect the inspection of the plant upon delivery.

3.2 PROSECUTION, OPTION AND COMPLETION

a. The estimated completion time of the contract will initially be determined as the date and time obtained by adding the hours in "Dredging" Payment Item to the date and time that the Contractor began start of pay time hours. During the course of work, the completion time may change as a result of fractional pay time (refer to Section 35 20 23.23, paragraph entitled "Dredging and Option Dredging Items") or award of option hours or any portion thereof. The contract will be considered complete when the time runs out at the designated dumpsite when the last load is dumped.

b. This contract shall extend for an approximate duration as stated in the table listed in Section 00010, paragraph entitled "Conditions of Contract Award". If all necessary work is completed prior to the approximate duration completion time, the Government will release the dredge and declare the contract complete.

c. Upon completion of the contract, the dredge and attendant plant

will be released to the Contractor at the location of the last assignment. It should be noted that the location of the last assignment could be either in a primary or secondary dredging region as specified in Section 35 20 23.23, paragraph entitled "Primary Dredging Region" or Section 35 20 23.23, paragraph entitled "Secondary Dredging Regions". All cost of final demobilization will be paid as stated in Section 35 20 23.23, paragraph entitled "Measurement and Payment". No other payment will be made.

d. If the Contracting Officer so notifies the Contractor of the Government's intent to exercise the option, in whole or part, the Contractor shall continue work on that part of the option rental hours specified by the Contracting Officer at the option unit price specified in the bidding schedule, subject to the provisions of Section 35 20 23.23, paragraph entitled "Dredging and Option Dredging Items". Any exercise of the option in part does not obligate the Government to the full extent of the option.

3.3 CONTRACTOR PERFORMANCE EVALUATIONS - CONSTRUCTION

In accordance with the provisions of Subpart 36.201/42.1502(e) (Evaluation of Contractor Performance) of the Federal Acquisition Regulation (FAR), construction contractor's performance shall be evaluated throughout the performance of the contract. The United States Army Corps of Engineers (USACE) follows the procedures outlined in Engineering Regulation 415-1-17 to fulfill this FAR requirement. For construction contracts awarded at or above \$700,000.00, the USACE will evaluate contractor's performance and prepare a performance report using the Contractor Performance Assessment Reporting System (CPARS), which is now a web-based system. After an evaluation (interim or final) is written up by the USACE, the Contractor will have the ability to access, review and comment on the evaluation for a period of 30 days. Accessing and using CPARS requires specific software, called PKI certification, which is installed on the user's computer. The certification is a Department of Defense requirement and was implemented to provide security in electronic transactions. The certification software could cost approximately \$110 - \$125 per certificate per year and is purchased from an External Certificate Authorities (ECA) vendor. Current information about the PKI certification process and for contacting vendors can be found on the web site: www.cpars.gov. If the Contractor wishes to participate in the performance evaluation process, access to CPARS and PKI certification is the sole responsibility of the Contractor.

3.4 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (UAI 5152.231-9000 - MAR 1995)

a. This clause does not apply to terminations. See UAI 5152.249-9000, "Basis For Settlement of Proposals", and FAR Part 49.

b. Allowable cost for construction and marine plant and equipment in sound workable condition, owned or controlled and furnished by a Contractor or Subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the Contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the Contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule," Region III. Working conditions shall

be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

c. Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d) (ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements and sale-leaseback arrangements will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

d. When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the Contracting Officer shall request the Contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet.

(End of special contract requirement)

Note 1: Costs for repairs or overhauling are not allowed.

Note 2: A copy of the "EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE" can be obtained from the following website:
www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP_1110-1-8_Vol_03.pdf .

3.5 VETERANS EMPLOYMENT EMPHASIS FOR U.S. ARMY CORPS OF ENGINEERS CONTRACTS (UAI 5122.1302-100)

In addition to complying with the requirements outlined in FAR Part 22.13, FAR Provision 52.222-38, FAR Clause 52.222-35, FAR Clause 52.222-37, DFARS 222.13 and Department of Labor regulations, U.S. Army Corps of Engineers (USACE) contractors and subcontractors at all tiers are encouraged to promote the training and employment of U.S. veterans while performing under a USACE contract. While no set-aside, evaluation preference, or incentive applies to the solicitation or performance under the resultant contract, USACE contractors are encouraged to seek out highly qualified veterans to perform services under this contract. The following resources are available to assist USACE contractors in their outreach efforts:

U.S. Department of Labor Veterans employment: www.vets.gov/

Federal Veteran Employment Information: www.fedshirevets.gov/index.aspx

Veterans' Employment and Training Service (VETS): <http://www.dol.gov/vets/>

Veterans Opportunity to Work (VOW) Program: <http://benefits.va.gov/vow/>

U.S. Army Warrior Transition Command Employment Index:
wtc.army.mil/modules/employers/index.html

Hiring Our Heroes Initiative: www.uschamberfoundation.org/hiring-our-heroes

Guide to Hiring Veterans:

<https://www.ebenefits.va.gov/ebenefits-portal/downloads/veterans-hiring-guide-2014.pdf>

(End of special contract requirement)

-- End of Section --

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-- End of Section Table of Contents --

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for administrative requirements as specified herein. Payment for the work covered under this section shall be distributed throughout the existing bid items, except as stated in the paragraph entitled "Accommodations and Meals for Inspectors".

1.2 ACCOMMODATIONS AND MEALS FOR INSPECTORS

1.2.1 General

The Contractor shall furnish to the Government Inspectors on board the dredge, or other craft upon which they are employed, bottled water and a suitable room for an office. The office shall be fully equipped and maintained to the satisfaction of the Government Inspectors aboard the dredge. The office shall be lighted, heated, ventilated, and air conditioned to the satisfaction of the Inspectors. Power surge protectors shall be available for the protection of any of the Inspector's equipment he/she deems necessary to protect from electrical outlet power surges. The entire cost to the Contractor for furnishing, equipping, and maintaining the accommodations shall be included in the contract unit price for "Dredging" or "Option Dredging". If the Contractor fails to meet the requirements of this paragraph, the accommodations will be secured by the Inspector and the cost will be deducted from payments due the Contractor.

1.2.2 Office

The office shall be equipped with the following items, which must be supplied in a fully functional condition:

- a. A desk with locking drawers and two sets of matching keys;
- b. A swivel desk chair with a contoured seat, two arms, and adjustable height and back rest, all of which shall have fully cushioned and upholstered surfaces;
- c. A two or more drawer legal sized file cabinet;
- d. A three foot by five foot drafting table, with a drafting table fluorescent light that is mechanically adjustable. This equipment shall include appropriate drafting instruments, as requested by the Inspector.
- e. A legal/letter sized capable copy machine - the Contractor may allow the use of his own in lieu of providing a separate one for the inspector;
- f. Double convenience outlets to provide 110 volt power along with surge protectors to protect Government equipment.

g. The Contractor shall provide at least one cellular telephone and one satellite telephone aboard the dredge. The telephones shall be available to Government personnel for conducting official Government business 24 hours per day, seven days per week. The contractor shall provide the Inspector's office with a cellular wireless Broadband / WiFi 802.11n capable router that accepts cellular data signals through satellite. The high speed internet service and associated equipment must be capable of providing adequate connection to allow the inspectors to import / export files through RMS (shall provide a minimum download speed of 10 Mbps and a minimum upload speed of 1.5 Mbps for the sole use of the Inspector). The contractor shall field verify that the service provider chosen has adequate continuous coverage throughout the site of work. The contractor shall be responsible for the installation, maintenance of, and the monthly service fees necessary to provide continuous high speed internet service for the duration of the contract. Final approval of the plant will not be made until this equipment is installed and in good working order.

1.2.3 Meals

If the Contractor maintains an establishment at the worksite for the subsistence of his own employees, then he shall furnish to inspectors, and Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. All meals shall be available for purchase by the Government's agents and inspectors at the cost of \$1.50 per person per meal.

1.3 SEAWORTHINESS CERTIFICATION

All dredges and quarter boats not subject to USCG inspection and certification or not having a current American Bureau of Shipping (ABS) classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least five years experience in commercial marine plant and equipment. All other plant shall be inspected annually by a qualified person. The inspection shall be documented and a copy of the most recent inspection report shall be posted in a public area on board the vessel and a copy shall be furnished to the designated authority upon request. The inspection shall be appropriate for the intended use of the plant and shall, as a minimum, evaluate structural integrity and compliance with NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft. See EM 385-1-1, Section 19.A.01.b.

1.4 ENVIRONMENTAL LITIGATION

a. If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, then the Contracting Officer or his/her authorized representative, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier and required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier, other than as required by the terms of this contract, then such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer or his/her authorized representative in the administration of

this contract under the terms of the "Suspension of Work" (FAR 52.242-14) clause located in Section 00700 - Contract Clauses. The period of such suspension, delay or interruption shall be considered unreasonable and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

b. The term "environmental litigation", as used herein, means a lawsuit alleging that the work has an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

1.5 STATE TAXES

a. The bid submitted shall not include any amount whatever for payment of any of the following taxes, fees or charges:

(1) The Louisiana "Severance Tax" imposed by LSA R.S. 47:631 and made applicable to the dredging of fill material from rivers and bodies of water within the State of Louisiana by the Severance Tax Regulations promulgated by the Collector of Revenue dated 31 March 1968.

(2) Any amounts claimed by the Louisiana Department of Wildlife and Fisheries for the privilege of removing fill from the water bottoms of the State of Louisiana.

b. If the Contractor is required to pay or bear the burden of any tax, fee or charge described in paragraph a.(1) and/or a.(2) above, the contract prices shall be increased by that amount which the Contractor is required to pay to the State of Louisiana; provided, however, that no increase in contract price shall be made for any liability the Contractor may incur as a result of his fault or negligence or his failure to follow the instructions of the Contracting Officer or his/her authorized representative.

c. The Contractor shall promptly notify the Contracting Officer or his/her authorized representative of all matters pertaining to taxes, fees, or charges as described herein which reasonably may be expected to affect the contract price and shall at all times follow the directions and instructions of the Contracting Officer or his/her authorized representative in regard to the payment of such taxes, fees, or charges.

d. Before any increase in contract price becomes effective in accordance with the provisions of this clause, the Contractor shall warrant in writing that no amount of such taxes, fees or charges was included in the contract price as a contingency reserve or otherwise.

1.6 RIGHTS-OF-WAY

a. The rights-of-entry required for the work to be constructed under this contract, within the rights-of-way limits indicated on the plates, have been obtained by the Government and are provided without cost to the Contractor. The Contractor shall make its own investigations to determine the conditions, restrictions and difficulties, which may be encountered in the transportation of equipment and material to and from the work site. The proposed work, including rights-of-way, as defined by these specifications and as shown on the plates, is in compliance

with all applicable Federal and state environmental laws and regulations. Upon completion of the Contractor's work, rights-of-way furnished by the Government shall be returned to its original condition prior to construction unless otherwise noted.

b. If the Contractor proposes a deviation from the Government furnished rights-of-way (as defined by the specifications and as shown on the plates, e.g., proposed borrow, disposal areas, staging areas, alternate access route, etc.) for his convenience, the Contractor shall notify the Contracting Officer or their representative in writing. The Contractor shall not provide any permanent rights-of-way for the project. The Contractor is cautioned that any deviation to the Government furnished rights-of-way is subject to all applicable Federal and state environmental laws and regulations. Compliance with these environmental laws and regulations may require additional National Environmental Policy Act (NEPA) documents, cultural resources surveys, coordination with the Louisiana State Historical Preservation Officer, water quality certification, modification of the Federal consistency determination, etc. The Government is ultimately responsible for environmental compliance; therefore, the Government will determine the additional environmental coordination and documentation necessary for a proposed deviation to the Government furnished rights-of-way. For any environmental investigations the Government is to perform on areas outside of Government furnished rights-of-way, the Contractor shall provide sufficient rights of entry to the Government. The Contracting Officer will advise the Contractor of the additional environmental coordination and documentation that must be completed. The Government shall be responsible for any additional environmental compliance; however, the Contractor may conduct specific tasks identified by the Government. The Government will offer advice and assistance to the Contractor in conducting these tasks. Depending on the environmental impact of the proposed deviation, obtaining the coordination and documentation may not be approved or could take as much as 180 days for approval by the Government. The Government must review, approve, and ensure distribution of all environmental compliance documentation and ensure all comments on the same have been resolved before any utilization of any areas outside of the Government furnished rights-of-way. The Contractor shall reimburse the Government for actual expenses incurred for assistance in completing or attempting to complete additional environmental coordination and documentation, which expenses will not exceed one hundred thousand (\$100,000) dollars. There is no guarantee that environmental compliance will be obtained; therefore, the Contractor shall assume all risks and liabilities associated with pursuing a deviation. Any delays resulting from the deviation and/or the environmental coordination and documentation shall not be made the basis of any Contractor claim for increase in the contract cost and/or increase in contract time. Deviations will be at Contractor's sole risk and liability, including, but not limited to, such liabilities associated with items such as hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 et. seq.), and at no cost to the Government. Government assistance in obtaining additional environmental clearances does not relieve the Contractor of responsibility for complying with other Federal, state or local licenses and permits.

c. The following right-of-entry stipulations apply to specific primary and/or secondary dredging locations and shall be complied with as required.

(1) For Mississippi River Deep Draft Crossings:

(a) The roads on the crown or berm of the levees are not to be used during inclement weather, except in the case of an emergency.

(b) Wherever the levee crown is to be used for parking for any more than four vehicles, 48 hours notice shall be given the Atchafalaya Basin Levee District (ABLD) at telephone number (225) 387-2249 and fax number (225) 387-4742. Pontchartrain Levee District at telephone number (225) 869-9721 or (225) 869-9722 and fax number (225) 869-9723.

(c) The levee crown is not to be accessed during inclement weather without the approval from ABLD.

(d) Parking must be within the levee servitude and existing ramps.

(e) The Contractor shall contact the levee ramp owner at Fairview Crossing at (504)874-3625 before utilizing parking for that area.

(2) For Mississippi River and Southwest Pass:

(a) The U.S. Army Corps of Engineers, Venice Sub Office and Harbor will not be available to the Contractor for vehicle parking or vessel docking. Vessel docking will only be permitted for standby to pick-up and drop-off Government personnel.

1.7 MOBILIZATION OF ATTENDANT PLANT

Pursuant to Section 00800, paragraph entitled "Prosecution, Option and Completion", mobilization of all attendant plant, if required, shall be concurrent with dredge mobilization. Failure to timely mobilize such auxiliary/attendant plant may result in one or more of the following actions by the Contracting Officer or his/her authorized representative: reasonable suspension (without Government cost) of work until required plant is provided and/or formulation of credit to offset deficient plant. The Government's rights under any other Contract Clause are preserved.

1.8 OBSTRUCTION OF CHANNEL

The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such 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 of 8 August 1917. The Contractor will be required to conduct the work in such a manner as to obstruct navigation as little as possible and in the case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon the completion of the work, the Contractor shall promptly remove its plant, including ranges, buoys, piles and other markers placed under this contract in navigable waters or on shore.

1.9 WORK BY OTHERS

The Government may award other contracts for additional work in the area,

or undertake work with its own personnel and equipment. The Contractor shall fully cooperate with such Contractors or Government forces and shall neither commit nor permit any act that may interfere with the performance of work by any other Contractor or Government forces.

1.10 CONTRACTOR'S RESPONSIBILITY

The Contractor shall be responsible for ensuring that all its employees strictly comply with all laws that may apply to operations under this contract. Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor. The Contractor assumes full responsibility for the safety of its employees, plant and materials and for any damage or injury done by or to them from any source or cause, except damage caused by negligent acts of the Government, its officers, agents or employees. Such damages will be the responsibility of the Government in accordance with applicable Federal laws. The terms "officer", "agent", and "employee" of the Government do not include persons in the employ of the Contractor and whose services have been furnished to the Government. The Contractor shall be responsible for the dredge, attendant plant and all additional equipment used for this contract. Should any of the aforementioned or parts thereof fall overboard or sink within the dredging region, the Contractor shall develop a plan to recover the sunken equipment or parts thereof at no additional cost to the Government. The Government will not be responsible to recover or assist in the recovery of the Contractor's sunken equipment or parts thereof.

1.11 SUPERVISION

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor. Inspectors appointed by the Contracting Officer will enforce strict compliance with the terms of the contract. The inspectors will keep a record of the work done, but neither the presence nor absence of inspectors shall relieve the Contractor of responsibility for the proper execution of the work in accordance with the contract and directives issued by the Contracting Officer.

1.12 AS-BUILT DRAWINGS

The Contractor will be furnished one set of plates for use in the preparation of properly scaled "As-Built" drawings. The Contractor shall submit an entire set of "As-Built" drawings, regardless of whether or not any dredging, disposal, or changes were made on those plates. The "As-Built" drawings shall be a record of the construction as completed by the Contractor. "As-Built" drawings shall include the following:

- a. All information shown on the contract plates and a record of all completed work, including any deviations, modifications or changes from those plates, however minor, which may have been incorporated into the work;
- b. Neat line and actual quantity by reach of dredging;
- c. All additional work not appearing on the contract plates; and
- d. Each various assignment performed shall be distinguishable by color coding and/or symbology. As a minimum the following features shall be depicted on the as-built drawings:

- (1) Contractor and dredge name.
- (2) Contract number.
- (3) Assignment number.
- (4) Sheet number.
- (5) Reach in which assignment is performed.
- (6) Number of cuts.
- (7) Total loads in assignment.
- (8) Yardage removed in assignment area.
- (9) Number of loads going to the Ocean Dredged Material Disposal Site (ODMDS), to the Hopper Dredge Disposal Area (HDDA), or other Government designated disposal areas.
- (10) Utility locations (for both the dredging channel and disposal areas) as verified by owners; including station, C/L XY-coordinate, minimum elevation, all horizontal information required to determine actual alignments of all utilities, utility size, utility type and POC information.
- (11) Channel markers, buoys, day markers, etc.
- (12) Changes or modifications issued during the course of the contract.

Upon approval of the "As-Built" drawings, the drawings will become final and the Contractor shall submit three hard copy sets of 11-inch by 17-inch as-built drawings with two standard size CD-RW disk copies and email an electronic CADD file to the Construction Division, respective Area Office. Failure to submit final as-built drawing files as specified shall be cause for withholding any payment due to the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.13 FUEL CONSUMPTION REPORTING REQUIREMENTS

On the first day of each month, the Contractor shall furnish, to the Government Inspector, a report of the quantities of fuel consumed during the previous month in execution of the work covered by the contract. The quantities reported shall include fuel consumed by the Contractor and all of their subcontractors for the main plant and all support plant during the preceding month. This information may be consolidated and shall be included in the Report of Operations-Hopper Dredges, ENG Form No. 27A (costs).

1.14 SUSPICIOUS ACTIVITY REPORTING TRAINING

The Contractor and all associated sub-contractors shall receive a brief/training (provided by the Government Representative) on the local suspicious activity reporting program. This locally developed training will be used to inform employees of the types of behavior to watch for and instruct employees to report suspicious activity to the project manager,

security representative, or law enforcement entity. This training shall be completed within 30 calendar days after contract award and within 30 calendar days after new employees commence performance, with the results reported to the Contracting Officer's Representative within five calendar days after completion of the training.

1.15 E-VERIFY PROGRAM

The Contractor shall pre-screen candidates using the E-verify Program website (<http://www.uscis.gov/e-verify>) to meet the established employment eligibility requirements. The Contractor shall ensure that the candidate has two forms of Government issued identification prior to enrollment to ensure the correct information is entered into the E-verify system. An initial list of verified/eligible candidates shall be provided to the Contracting Officer's Representative within three business days after contract award.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 33 00

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- 1.3 DEFINITIONS
 - 1.3.1 Submittal Identification Definitions
- 1.4 SUBMITTAL CLASSIFICATION
 - 1.4.1 Government Approved
 - 1.4.2 Information Only
- 1.5 SUBMITTAL PREPARATION
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- 1.13 DISAPPROVED SUBMITTALS
- 1.14 APPROVED SUBMITTALS
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PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

ATTACHMENTS:

Transmittal Form

Submittal Register

-- End of Section Table of Contents --

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections.

Units of weights and measures used on all submittals shall be the same as those used in the contract.

Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

Each submittal shall be submitted, with its complete backup material, in paper and electronic (pdf) form.

1.2 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for submittal requirements as specified herein. Payment for the work covered under this section shall be distributed throughout the existing bid items. Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.3 DEFINITIONS

1.3.1 Submittal Identification Definitions

Drawings

Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, details of fabrication, layouts of particular elements, connections, and other relational aspects of the work.

Data

Submittals that provide calculations, descriptions, or documentation regarding the work.

Samples

Samples, including both fabricated and unfabricated physical examples of materials, products, and units of work as complete units or as portions of units of work.

Schedules

Tabular lists showing location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

Reports

Reports of inspections or tests, including analysis and interpretation of test results.

Certificates

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements that are being certified.

Instructions

Preprinted material describing installation of a product, system or material, including special notices and material safety data sheets, if any, concerning impedances, hazards, and safety precautions.

Statements

A document, required of the Contractor, or through the Contractor, from a supplier, installer, manufacturer, or other lower tier Contractor, the purpose of which is to confirm the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verifications of quality.

Operation and Maintenance Manuals

Data that forms a part of an operation and maintenance manual.

Records

Documentation to record compliance with technical or administrative requirements.

1.4 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.4.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction" (FAR 52.236-21), they are considered to be "shop drawings". Any reference to Government approval by the Contracting Officer (CO) includes the approving authority of the CO, the Administrative Contracting Officer (ACO) or the Contracting Officer's representative (COR).

1.4.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.5 SUBMITTAL PREPARATION

1.5.1 General

The Contractor shall submit all items listed on the Submittal Register (ENG Form 4288-R) or specified in the other sections of these specifications. The Contractor shall make submittals as required by the specifications. Submittals shall be made to the respective Area Office address listed in the provision entitled "Site Visit Construction" (FAR 52.236-27) in Section 00100 - Instructions to Bidders. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

1.5.2 Procedures

Procedures for submittals will be stipulated by the Contracting Officer at the preconstruction conference.

1.6 TRANSMITTAL FORM (ENG FORM 4025-R)

The sample Transmittal Form (ENG Form 4025-R) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract plates pertinent to the data submitted for each item.

1.7 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.8 DEVIATIONS

For submittals that include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025-R shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted

deviations.

1.9 SUBMITTAL REGISTER

The sample Submittal Register at the end of this section is one set of ENG Form 4288-R listing items of equipment and materials for which submittals are required by the specifications; this list may not be all-inclusive and additional submittals may be required. Columns "c" through "r" have been completed by the Government. The Contractor shall complete columns "a", "b", and "s" through "x", and submit seven completed copies to the Contracting Officer within 5 calendar days after Notice to Proceed for approval. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated. The Contractor is responsible for maintaining an effective submittal control system by reviewing, updating and submitting updated copies of the register to the Contracting Officer every 30 days.

1.10 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delays, damages or time extensions will be allowed for time lost in late submittals.

1.11 CONTROL OF SUBMITTALS

The Contractor shall carefully control its procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "SUBMITTAL REGISTER".

1.12 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Five copies of the submittal will be retained by the Contracting Officer and two copies of the submittal will be returned to the Contractor.

1.13 DISAPPROVED SUBMITTALS

The Contractor shall respond to all concerns expressed by the Contracting Officer and promptly make any corrections necessary to address those concerns. The Contractor shall promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" (FAR 52.243-4) shall be given promptly to the Contracting Officer.

1.14 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any

error that may exist; the Contractor is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.15 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements is to be similar to the following:

<p>CONTRACTOR</p> <p>(Firm Name)</p> <p>_____ Approved</p> <p>_____ Approved with corrections as noted on submittal data and/or attached sheets(s)</p> <p>SIGNATURE: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

-- End of Section --

**TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR
MANUFACTURER'S CERTIFICATES OF COMPLIANCE**

For use of this form, see ER 415-1-10; the proponent agency is CECW-CE.

DATE

TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (*This section will be initiated by the contractor*)

TO:	FROM:	CONTRACT NO.	CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____
-----	-------	--------------	--

SPECIFICATION SEC. NO. (<i>Cover only one section with each transmittal</i>)	PROJECT TITLE AND LOCATION	THIS TRANSMITTAL IS FOR: (<i>Check one</i>) <input type="checkbox"/> FIO <input type="checkbox"/> GA <input type="checkbox"/> DA <input type="checkbox"/> CR <input type="checkbox"/> DA/CR <input type="checkbox"/> DA/GA
--	----------------------------	---

ITEM NO. <small>(See Note 3)</small>	DESCRIPTION OF SUBMITTAL ITEM <small>(Type size, model number/etc.)</small>	SUBMITTAL TYPE CODE <small>(See Note 8)</small>	NO. OF COPIES	CONTRACT DOCUMENT REFERENCE		CONTRACTOR REVIEW CODE	VARIATION <small>Enter "Y" if requesting a variation (See Note 6)</small>	USACE ACTION CODE <small>(Note 9)</small>
				SPEC. PARA. NO.	DRAWING SHEET NO.			
a.	b.	c.	d.	e.	f.	g.	h.	i.

REMARKS	I certify that the above submitted items had been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.		
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">NAME OF CONTRACTOR</td> <td style="width:30%;">SIGNATURE OF CONTRACTOR</td> </tr> </table>	NAME OF CONTRACTOR	SIGNATURE OF CONTRACTOR
NAME OF CONTRACTOR	SIGNATURE OF CONTRACTOR		

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (<i>List by item No.</i>)	NAME AND TITLE OF APPROVING AUTHORITY	SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each Transmittal shall be numbered consecutively. The Transmittal Number typically includes two parts separated by a dash (-). The first part is the specification section number. The second part is a sequential number for the submittals under that spec section. If the Transmittal is a resubmittal, then add a decimal point to the end of the original Transmittal Number and begin numbering the resubmittal packages sequentially after the decimal.
3. The "Item No." for each entry on this form will be the same "Item No." as indicated on ENG FORM 4288-R.
4. Submittals requiring expeditious handling will be submitted on a separate ENG Form 4025-R.
5. Items transmitted on each transmittal form will be from the same specification section. Do not combine submittal information from different specification sections in a single transmittal.
6. If the data submitted are intentionally in variance with the contract requirements, indicate a variation in column h, and enter a statement in the Remarks block describing the detailed reason for the variation.
7. ENG Form 4025-R is self-transmitting - a letter of transmittal is not required.
8. When submittal items are transmitted, indicate the "Submittal Type" (*SD-01 through SD-11*) in column c of Section I.
Submittal types are the following:
SD-01 - Preconstruction SD-02 - Shop Drawings SD-03 - Product Data SD-04 - Samples SD-05 - Design Data SD-06 - Test Reports
SD-07 - Certificates SD-08 - Manufacturer's Instructions SD-09 - Manufacturer's Field Reports SD-10 - O&M Data SD-11 - Closeout
9. For each submittal item, the Contractor will assign Submittal Action Codes in column g of Section I. The U.S. Army Corps of Engineers approving authority will assign Submittal Action Codes in column i of Section I. The Submittal Action Codes are:

A -- Approved as submitted.	F -- Receipt acknowledged.
B -- Approved, except as noted on drawings. Resubmission not required.	X -- Receipt acknowledged, does not comply with contract requirements, as noted.
C -- Approved, except as noted on drawings. Refer to attached comments. Resubmission required.	G -- Other action required (<i>Specify</i>)
D -- Will be returned by separate correspondence.	K -- Government concurs with intermediate design. (<i>For D-B contracts</i>)
E -- Disapproved. Refer to attached comments.	R -- Design submittal is acceptable for release for construction. (<i>For D-B contracts</i>)
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract.

SUBMITTAL REGISTER

(ER 415-1-10)

CONTRACT NO.

TITLE AND LOCATION										CONTRACTOR			SPECIFICATION SECTION													
Mississippi River, Baton Rouge to Gulf of Mexico, Southwest Pass Hopper Dredge Rental Contract No. 5-2019																										
ACTIVITY NO	TRANSMITTAL NO	ITEM NO	SPECIFICATION SECTION NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION	REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS	
					DRAWINGS	INSTRUMENTS	STANDARD	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M	INFORMATION			GOVERNMENT	SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	DATE	SUBMIT TO GOVERNMENT	DATE	CODE		
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
		1	01 30 00	As-Built Drawings		X											X	NOAO								
		2	01 35 26	Accident Prevention Program													X	SS								
		3	01 57 20.00 10	Environmental Protection Plan	X												X	NOAO								
		4	35 20 23.23	Load Displacement Chart	X												X	OD-T								
		5	35 20 23.23	Pump curve(s)	X												X	OD-T								
		6	35 20 23.23	Plant Data Sheet	X												X	OD-T								
		7	35 20 23.23	Plan of Operations for Utility Crossing						X							X	NOAO								
		8	35 20 23.23	Utility As-builts and Surveys Received from the Owners	X	X											X	OD-T								
		9	35 20 23.26	Letter of National Dredging Quality Management Program Certification							X						X	OD-T								
		10	35 20 23.26	Dredge Plant Instrumentation Plan Addendums or Modifications	X												X	CESAM-OP-J Attn: Brenda Allen								
		11	35 20 23.26	Data Appropriately Archived Email													X	NOAO								
		12	35 20 23.26	Contractor Quality Control Program													X	CD-Q								

ENG FORM 4288-R, JAN 97

EDITION OF MAR 95 IS OBSOLETE.

PAGE 1 OF 1 PAGES

(PROPONENT: CEMP-CE)

NOTE: THIS REGISTER IS NOT NECESSARILY COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A COMPREHENSIVE REGISTER.

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-- End of Section Table of Contents --

SECTION 01 35 26

GOVERNMENTAL SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 SAFETY PROVISIONS

All work under these specifications shall be performed in accordance with the provisions of EM 385-1-1 "Corps of Engineers Safety and Health Requirements Manual", latest edition. USCG Rules and regulations also are applicable.

1.2 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for governmental safety requirements as specified herein. Payment for the work covered under this section shall be distributed throughout the existing bid items.

1.3 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.3.1 Personnel Qualifications

1.3.1.1 SITE SAFETY AND HEALTH OFFICER (SSHO)

1.3.1.1.1 SSHO Staffing for USACE Dredging Contracts

a. Dredging contracts may include several project sites; this contract will require a minimum of one full time SSHO(s) assigned per project site. SSHO may be collateral duty in specific conditions listed below.

b. Example of one dredging project site is reflected in each of the following:

(1) a mechanical dredge, tug(s) and scow(s), scow route and material placement site; or

(2) a hydraulic pipeline dredge, attendant plant and material placement site; or,

(3) a hopper dredge (include land-based material placement site - if applicable.)

c. On individual dredging project sites with a work force less than eight employees, the SSHO may be a collateral duty, with the same responsibilities of a full time SSHO.

d. Hopper dredges with USCG - Documented crews may designate an officer as a collateral-duty SSHO instead of having a full-time SSHO if the officer meets the SSHO training and experience requirements.

1.3.1.1.2 SSHO Requirements for Dredging

a. In addition to requirements stated elsewhere in this specification, the SSHO shall be present at the project site, located so they have full mobility and reasonable access to all major work operations, for

at least one shift in each 24 hour period when work is being done. The SSHO, or Alternate SSHO, shall be available during all shifts for immediate verbal consultation and notification, either by phone or radio. The SSHO shall be a full-time, dedicated position, except as noted above. The SSHO shall report to a senior project (or corporate) official.

b. The SSHO shall inspect all work areas and operations during initial set-up and at least monthly observe and provide personal oversight on each shift during dredging operations for projects with many work sites, more often for those with less work sites.

c. For projects with multiple shifts or when SSHO is temporarily off-site, an Alternate SSHO will be assigned to insure SSHO coverage for the project at all times work activities are conducted. The Alternate SSHO must meet the same requirements and assume the responsibilities of the project SSHO. The Alternate SSHO position may be a collateral duty.

d. If the SSHO is off-site for a period longer than 24 hours, a qualified replacement SSHO shall be provided and shall fulfill the same roles and responsibilities as the primary/initial SSHO.

1.3.1.1.3 Designated Representative (DR) Requirements for Dredging

a. Designated Representatives (DR) are collateral duty safety personnel, with safety duties in addition to their full-time occupation, and support and supplement the SSHO efforts in managing, implementing and enforcing the Contractor's Safety and Health Program. DRs shall be individual(s) with work oversight responsibilities, such as masters, mates, fill foremen and superintendants. DRs should not be positions requiring continuous mechanical or equipment operations, such as equipment operators.

b. A DR shall be appointed for all remote work locations more than 45 minutes' travel time from the SSHO's duty location, typically including dredged material placement sites, towing and scow operations and other operations.

c. The DRs will perform safety program tasks as designated by the SSHO and report safety findings to the SSHO/Alternate SSHO. The SSHO shall document results of safety findings and provide information for inclusion in the CQC reports to the Government Representative on a daily basis.

1.3.1.1.4 Safety Personnel Training Requirements for Dredging

a. The SSHO, as a minimum, must produce a copy of their instructor-signed OSHA 30- hour training card (or course completion if within 90 days of having completed the training and card has not yet been issued). They will have completed:

1) The 30-hour OSHA General Industry safety class (may be web-based training if the student is able to directly ask questions of the instructor by chat or phone); or

2) The 30-hour OSHA Construction Industry safety class (may be web-based training if the student is able to directly ask questions of the instructor by chat or phone); or

3) As an equivalent, formal construction or industry safety and health training covering the subjects of the OSHA 30-hour course and the EM 385-1-1 (see Appendix A, Paragraph 3.d.(3)) applicable to the work to be performed and given by qualified instructors (may be web-based training if the student is able to directly ask questions of the instructor by chat or phone).

b. The SSHOs shall maintain competency through having taken 8 hours of documented formal, on-line, or self-study safety and health related coursework every year.

c. The SSHO, Alternate SSHO, and Designated Representatives shall have a minimum of three years continuous experience within the past five years in supervising/managing dredging, marine or land-based construction, work managing safety programs or processes, or conducting hazard analyses and developing controls in activities or environments with similar hazards.

1.3.1.2 Equipment Operator Authorization

The Contractor shall submit a list of designated personnel qualified and authorized to operate machinery and mechanized equipment in accordance with Section 16 of EM 385-1-1.

1.3.1.3 Crane/Derrick and Dragline Certification

The Contractor shall submit a copy of certification and performance test in accordance with Section 16 of EM 385-1-1.

1.3.2 Personnel Duties

1.3.2.1 Daily Inspections

The Contractor shall institute a daily inspection program to assure that safety requirements are being fulfilled. Reports of daily inspections shall be maintained at the jobsite. The reports shall be records of the daily inspections and resulting corrective actions. Each report shall include, as a minimum, the following:

- a. Phase(s) of construction underway during the inspection.
- b. Location(s) of areas where inspections were made.
- c. Results of inspections shall be reported in a deficiency tracking log in accordance with Section 01.a.13.d of EM 385-1-1, including nature of deficiencies observed and corrective action taken or to be taken, and the date and signature of the person responsible for its contents. The Contractor shall submit to the Government a copy of the daily inspection report form that's intended to be used as part of the Accident Prevention Plan for execution of the work.

1.4 ACCIDENT PREVENTION PROGRAM

Refer to the Contract Clause in Section 00700 - Contract Clauses, entitled "Accident Prevention" (FAR 52.236-13). Within 24 hours after receipt of Notice of Award of the contract, seven copies of the Accident Prevention Plan shall be submitted to the Contracting Officer or his/her authorized representative for review and acceptance. The Accident Prevention Plan must include a statement that describes the: Description, Magnitude, Major

Scope of Work and Location/s. The program shall be submitted in the following format:

- a. Accident Prevention Plan Checklist (CESO Form A-02, latest edition) and the Activity Hazard Analysis (latest edition), see Section 01.A.15 and Figure 1-2 of EM 385-1-1. A sample of each is attached at the end of this section.
- b. A copy of company policy statement regarding accident prevention.
- c. When marine plant and equipment are in use under a contract, the method of fuel oil transfer shall be included on MVN Form 385-10R (latest edition), Fuel Oil Transfer, (available upon request). (Refer to 33 CFR 156).

The Contractor shall not commence physical work at the site until the program has been accepted by the Contracting Officer or his/her authorized representative. The Contractor may submit its Activity Hazard Analysis only for the first phase of construction provided that it is accompanied by an outline of the remaining phases of construction. All remaining phases shall be submitted and accepted prior to the beginning of work in each phase. Also refer to Sections 1 and 19.A.06 of EM 385-1-1.

1.5 DIVE PLAN

A Dive Plan shall be submitted as a safety submittal item of the contract Accident Prevention Plan. All contract diving operations shall be performed in accordance with, EM 385-1-1, Section 30.A. At a minimum, the dive plan will address items in EM 385-1-1, Section 30.A.16.

1.6 SAFETY SIGN

The Contractor shall furnish, erect, and maintain a safety sign on the dredge, as located by the Contracting Officer or his/her authorized representative. The Safety Sign shall conform to the requirements of this paragraph and the plate included at the end of this section. The lettering shall be black, the castle red and the background white. Upon request, the Government will furnish two Engineer castle decals suitable for use on the sign. The safety sign will be placed as soon as practicable, but no later than 15 calendar days after the date established for commencement of the work. The data required to be displayed on the sign shall be kept accurate and up to date. The sign may be produced in half size, at the Contractor's option, for installation on floating plant.

1.7 MEANS OF ESCAPE FOR PERSONNEL QUARTED OR WORKING ON FLOATING PLANT

Two means of escape shall be provided for assembly, sleeping and messing areas on floating plants. For areas involving ten or more persons, both means of egress shall be through standard sized doors opening to different exit routes. Where nine or fewer persons are involved, one of the means of escape may be a window (minimum dimensions 24-inch by 36-inch) that leads to a different exit route than the door. Refer to Section 19 of EM 385-1-1.

1.8 EMERGENCY ALARMS, SIGNALS AND DRILLS

1.8.1 Alarms

Emergency alarms shall be installed and maintained on all floating plant requiring a crew where it is possible for either a passenger or crewman to

be out of sight or hearing from any other person. The alarm system shall be operated from the primary electrical system with standby batteries on trickle charge that will automatically furnish the required energy during an electrical system failure. A sufficient number of signaling devices shall be placed on each deck so that the sound can be distinctively heard at any point above the usual background noise. All signaling devices shall be so interconnected that actuation can occur from at least one strategic point on each deck.

1.8.2 Signals

1.8.2.1 Fire Alarm Signals

The general fire alarm signal shall be in accordance with 46 CFR 90.109 Part 97.15 of the US Coast Guard Rules and Regulations for Cargo and Miscellaneous Vessels, Subchapters I & Ia, 1 Oct 98 (CG 257).

1.8.2.2 Abandon Ship Signals

The signal for abandon ship shall be in accordance with paragraph 97.13-15(c) of the publication cited in paragraph 1.8.2.1 above.

1.8.2.3 Man Overboard Signal

Hail and pass the word to the bridge. All personnel and vessels capable of rendering assistance shall respond.

1.8.3 Drills

Drills shall be in accordance with EM 385-1-1, Section 19.A.04e.

1.9 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct its operations in accordance with U. S. Coast Guard regulations governing lights and day signals to be displayed, as set forth in Commandant, U. S. Coast Guard Instruction M16672.2C, Navigation Rules, International - Inland (COMDTINST M16672); 33 CFR 81, Appendix A (International); and 33 CFR 84 through 33 CFR 90 (Inland) as applicable.

1.10 REPORTS

1.10.1 Mishap Reporting and Investigation

Refer to the EM 385-1-1, Section 01.D. Accidents shall be investigated and reports completed by the immediate supervisor of the employee(s) involved and reported to the Contracting Officer or his/her authorized representative within one working day after the accident occurs. A written report shall be submitted to the Contracting Officer's Representative on ENG Form 3394 the next day following the reportable incident. All data reported must be complete, timely and accurate. A follow up written report shall be submitted when the estimated lost time days differs from the actual lost time days.

1.11 HURRICANE PLAN

A detailed plan for protection and evacuation of personnel and plant in the event of an impending hurricane or storm is required as an enclosure to the Contractor's Accident Prevention Program. This plan shall be submitted to

the Contracting Officer or his/her authorized representative for review and approval as part of the Accident Prevention Plan prior to the pre-construction conference. Work being performed to satisfy the Hurricane Plan will not be measured for payment. Payment for all work associated with the Hurricane Plan and providing the equipment required shall be included in the contract unit price per hour for "Dredging". The plan shall include at least the following:

- a. The time each phase will be put into effect. The time shall be the number of hours remaining for the storm to reach the worksite if it continues at the predicted speed and direction.
- b. The safe harbor for personnel and plant specifically identified.
- c. The name of the boat that will be used to move the plant, its type, capacity, speed and availability.
- d. The estimated time necessary to move the plant to the safe harbor after movement is started.
- e. An on-site review by the Contractor's supervisory personnel and the Government Inspector shall be conducted at the Government Inspector's discretion.

1.12 COMPREHENSIVE HAZARD COMMUNICATION PROGRAM

The Contractor shall develop, implement and maintain at the workplace a written, Comprehensive Hazard Communication Program (see Section 06.B.01 of EM 385-1-1) that includes identification of potential hazards as prescribed in 29 CFR Part 1910.1200 and/or 1926.59, effects of exposure and control measures to be used for chemical products and physical agents that may be encountered during the performance of work on this contract, provisions for container labeling, Material Safety Data Sheets and employee training program and other criteria in accordance with 29 CFR Part 1910.1200, 1926.59. Training shall include communication methods and systems to be used (i.e., voice, hand signals, radios or other means) and training in the use and understanding of material safety data sheets and chemical product hazard warning labels. Prior to bringing hazardous substances, as defined in 29 CFR 1910.1200 and/or 1926.59, onto the job site, a copy of the Hazard Communication Program and the Material Safety Data Sheet of each substance shall be provided to the Contracting Officer or his/her authorized representative and made available to the Contractor's employees as part of the Contractor's Accident Prevention Program.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 GROUND FAULT PROTECTION

All electrical equipment used on this contract shall be equipped with ground fault circuit interrupters, in accordance with EM 385-1-1, Section 11.

3.2 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

The Contractor shall develop, implement and maintain at the workplace a written control of hazardous energy (lockout/tagout) system, Section 12 of EM 385-1-1.

3.3 RADIATION

If a production meter that uses nuclear materials is being used aboard the dredge, the Contractor shall perform the following requirements. The production meter nuclear device system designer and installer shall be qualified in these fields of expertise by the Nuclear Regulatory Commission (NRC). The Contractor shall obtain licensing and training as required by the NRC for its personnel aboard the dredge for the use of those components of the production meter containing or are affected by the nuclear source. The Contractor shall implement a nuclear device awareness program as required by the NRC for all personnel aboard the dredge not directly involved in the activities of the nuclear device. The Contractor shall submit a nuclear device safety plan to the Government within 24 hours after receipt of Notice to Proceed by the Contractor. While a nuclear device is present aboard the dredge, the Contractor shall strictly adhere to all applicable NRC rules and regulations.

-- End of Section --

Form A-02
U.S. Army Corps of Engineers
Accident Prevention Plan Checklist

Date of Inspection

Location (Plant or Facility)	Contract Number
Contractor Name	Project Name
Inspector Name (Print)	Inspector Signature

This checklist serves as a guide only, it does not replace or eliminate the need to comply with the requirements set forth in Engineering Manual 385-1-1, Safety and Health Requirements Manual, dated 30 Nov 2014. The references included in this checklist correspond to the applicable sections of EM 385-1-1.

Item Description	Yes	No	N/A	Remarks (Any NO or N/A item)
1. Signature sheet				
a. Includes the name, signature, and title of the Plan Preparer (<i>Qualified person, i.e. corporate safety staff person, QC</i>)				
b. Includes the name, signature, and title of the Plan Approver (<i>e.g. owner, company president, regional vice president</i>) (HTRW activities require approval of a Certified Industrial Hygienist, a Certified Safety Professional may approve the plan for operations involving UST removal where contaminants are known to be petroleum, oils, or lubricants).				
c. Includes the name(s), signature(s), and title(s) for Plan Concurrence (provide concurrence of other applicable corporate and project personnel (contractor)) (<i>e.g. Chief of Operations, Corporate Chief of Safety, Corporate Industrial Hygienist, project manager or superintendent, project safety professional, project QC.</i>)				
2. Background information				
a. Includes the Contractor Name.				
b. Includes the Contract Number.				
c. Includes the Project Name.				
d. Includes the Brief Project Description.				
e. Includes the Location of the Project (map).				
f. Includes the Contractor Accident Experience (<i>Copy of OSHA 300</i>)				
g. Includes the Listing of Phases of Work and Hazardous Activities Requiring an Activity Hazard Analyses (AHA).				
3. Statement of Safety and Health Policy. Includes a copy of the corporate safety policy. (<i>In addition to the corporate policy statement, a copy of the corporate safety program may provide a portion of the information required by the accident prevention</i>)				
4. Responsibilities and Lines of Authorities				
a. Includes the identification and job responsibilities of personnel responsible for safety - at both corporate and project level – including their resumes.				
b. Includes the lines of authority.				

Form A-02 U.S. Army Corps of Engineers Accident Prevention Plan Checklist (cont'd)				Date of Inspection
Item Description	Yes	No	N/A	Remarks (Any NO or N/A item)
5. Training				
a. Includes the list of subjects to be discussed with employees at safety indoctrination.				
b. Includes the list of mandatory training and certifications applicable to this project (e.g., <i>explosive actuated tools, confined space entry, crane operator, diver, vehicle operator, HAZWOPER training and certification, PPE</i>) and any requirements for periodic retraining / recertification.				
c. Includes the identity requirements for emergency response training.				
d. Includes the outline requirements (<i>who attends, when given, who will conduct, etc.</i>) for supervisory and employee safety				
6. Safety and Health Inspections				
a. Includes the name(s) of individual(s) responsible for conducting safety inspections. (e.g., <i>PM, safety professional, QC, supervisors, employees</i>)				
b. Includes proof of inspector's training / qualifications.				
c. Indicates when inspections will be conducted.				
d. Furnished sample forms upon which inspections will be recorded.				
e. Indicates deficiency tracking system and follow-up procedures.				
f. Includes the names of competent and / or qualified person(s) and proof of competency / qualification to meet specific OSHA competent / qualified person(s) requirements.				
g. Includes any external inspections / certifications which may be required. (e.g., <i>US Coast Guard</i>)				
7. Safety and Health Expectations, Incentive Programs, and Compliance				
a. Includes the company's written safety program goals, objectives, and accident experience goals.				
b. Includes a brief description of the company's safety incentive programs (<i>if any</i>).				
c. Includes the policies and procedures regarding noncompliance with safety requirements (to include disciplinary actions for violation of safety requirements).				
d. Includes the written company procedures for holding managers and supervisors accountable for safety.				
8. Mishap Reporting				
a. The plan identifies how, when, and who shall complete the Exposure data (man-hours worked).				
b. The plan identifies how, when, and who shall complete mishap investigations, reports, and logs.				
c. The plan identifies how, when, and who shall make immediate notification of major mishaps.				

Form A-02
U.S. Army Corps of Engineers
Accident Prevention Plan Checklist (cont'd)

Date of Inspection

Based on a risk assessment of contracted activities and on mandatory OSHA compliance programs, the Contractor shall address all applicable occupational risks and compliance plans. Using the EM 385-1-1 as a guide, plans may include but not be limited to:

Item Description	Yes	No	N/A	Remarks (Any NO or N/A item)
9. Plans (Programs, Procedures) required by the Safety Manual				
a. Fatigue Management Plan (01.A.20)				
b. Emergency response plans:				
(1) Procedures & Test (01.E.01)				
(2) Spill Plans (01.E.01, 06.A.02)				
(3) Fire Fighting Plan (01.E.01; 19.A)				
(4) Posting of Emergency Telephone Numbers (01.E.05)				
(5) Man overboard/abandon ship (19.A.04)				
(6) Medical Support. Outline on-site medical support and off-site medical arrangements including rescue and medical duties for those employees who are to perform them, and the name(s) of on-site Contractor personnel trained in first aid and CPR. A minimum of two employees shall be certified in CPR and first-aid per shift/site (Section 03.A; 03.D)				
c. Plan for prevention of alcohol and drug abuse (01.C.02)				
d. Site Sanitation Plan (Section 02.B)				
e. Medical Support Plan, (03.A.01; <u>03.A.06</u> ; 03.D)				
f. Bloodborne Pathogen Plan (03.A.05)				
g. Exposure Control Plan (03.A.05)				
h. Site Layout Plan (04.A)				
i. Access/Haul road Plan (04.B)				
j. Hearing Conservation Program (05.C)				
k. Respiratory Protection Plan (05.G)				
l. Health Hazard Control Program (06.A)				
m. Process Safety Management Plan (06.B.04)				
n. Lead Abatement Plan (06.C & Specs)				
o. Asbestos Abatement Plan (06.C & Specs)				
p. Radiation Safety Program (06.F)				
q. Abrasive Blasting Plan (06.I)				
r. Heat/Cold Stress Monitoring Plan (06.J)				
s. Indoor Air Quality Management Plan (06.L)				
t. Mole Remediation Plan (06.L.04)				
u. Chromium (VI) Exposure Evaluation (06.M)				
v. Crystalline Silica Assessment (06.N)				
w. Lighting Evaluation (07.A)				
x. Lighting Plan for Night Operations (07.A.09)				

Form A-02
U.S. Army Corps of Engineers
Accident Prevention Plan Checklist (cont'd)

Date of Inspection

Based on a risk assessment of contracted activities and on mandatory OSHA compliance programs, the Contractor shall address all applicable occupational risks and compliance plans. Using the EM 385-1-1 as a guide, plans may include but not be limited to:

Item Description	Yes	No	N/A	Remarks (Any NO or N/A item)
9. Plans (Programs, Procedures) continued.				
y. Traffic Control Plan (08.C.05)				
z. Fire Prevention Plan (09.A.01)				
aa. Wild Land Fire Management Plan (09.L)				
bb. Arc Flash Hazard Analysis (11.B)				
cc. Assured Equipment Grounding Control Program (AEGCP), (11.D.05, App D)				
dd. Hazardous Energy Control Plan, (12.A.01)				
ee. Standard Pre-Lift Plan (LHE) (16.A.03, 16.L.15)				
ff. Critical Lift Plan – LHE (16.H)				
gg. Naval Architectural Analysis (16.L)				
hh. Contingency Plan for Severe Weather (19.A.03)				
ii. Man Overboard/Abandon Ship (19.A.04)				
jj. Float Plan (19.F.04)				
kk. Fall Protection Program, (21.D);				
ll. Demolition/Renovation Plan (to include engineering survey), (23.A.02)				
mm. Rope Access Program, (24.H.02)				
nn. Excavation/Trenching Plan, (25.A.01)				
oo. Underground construction fire prevention and protection Plan, (26.D.01)				
pp. Compressed Air Plan, (26.I.01)				
qq. Formwork and Shoring Erection and Removal plan, (27.C)				
rr. PreCast Concrete Plan, (27.D)				
ss Lift. slab plans, (27.E)				
tt. Masonry Bracing Plan, (27.F.01)				
uu. Steel Erection Plan, (28.B)				
vv. Explosives Safety Site Plan (ESSP) (29.A)				
ww. Blasting Plan, (29.A; 26.J)				
xx. Underwater Dive Operations Plan, (30.A.14, 16,)				
yy. Tree Felling/Maintenance Program, (31.A)				
zz. Aircraft/Airfield Construction Safety & Phasing Plan, (32.A.02)				
aaa. Site Safety and Health Plan (HTRW), (33.B)				
bbb. Confined Space Entry Program, (34.A.06, 07)				
10. Risk Management Processes. Detailed project-specific hazards shall be identified and controls provided via Activity Hazard				

Other Remarks:

CESO Form A-02 Sep 13

Activity Hazard Analysis(AHA)

Activity/Work Task:	Overall Risk Assessment Code (RAC) (Use highest code)					
Project Location:	Risk Assessment Code (RAC) Matrix					
Contract Number:	Severity	Probability				
Date Prepared:		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title):	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
Reviewed by (Name/Title):	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L
Notes: (Field Notes, Review Comments, etc.)	Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)					
	"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.				RAC Chart	
	"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible				E = Extremely High Risk	
	Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.				H = High Risk	
		M = Moderate Risk			L = Low Risk	
Job Steps	Hazards	Controls			RAC	
Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements				



U.S. ARMY



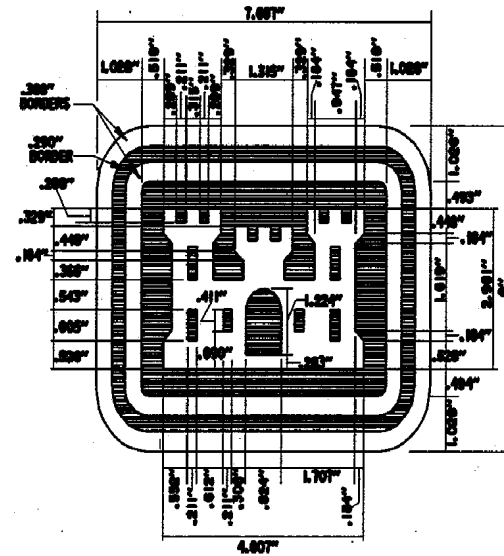
CORPS OF ENGINEERS - NEW ORLEANS DISTRICT

SAFETY IS A JOB REQUIREMENT
 THIS CONTRACT HAS OPERATED WITHOUT A
 LOST TIME INJURY SINCE DAY MONTH YEAR
 CONTRACT TIME STARTED DAY MONTH YEAR
 TOTAL LOST TIME INJURY DAYS

NAME OF CONTRACTOR

ADDRESS

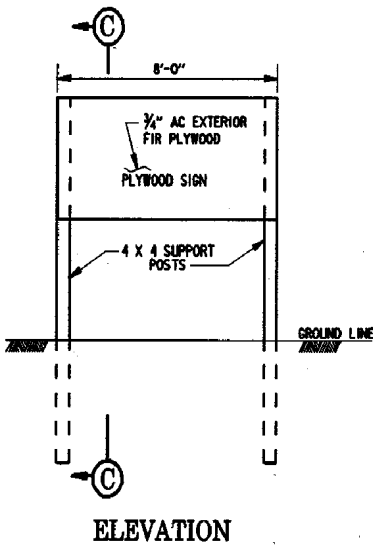
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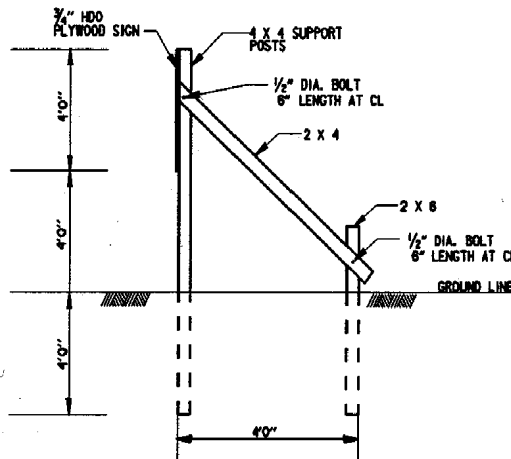
ENGINEER CASTLE DETAIL

NOTES:

1. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN A DURABLE SIGN AS SHOWN.
2. WOOD IN CONTACT WITH GROUND SHALL BE TREATED LUMBER.
3. ALL EXPOSED SURFACES SHALL BE WHITE HOUSE PAINT.
4. LETTERING SHALL BE BLACK.
5. ENGINEER CASTLE SHALL BE RED. DECALS FURNISHED BY GOVERNMENT MAY BE USED IN LIEU OF DETAIL.



ELEVATION



SECTION C-C

SAFETY SIGN

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

DESIGNED BY: DAVID W. T. NELSON	PLOT SCALE: []	FILE NO.:
CHECKED BY:	DATE: OCT 1978	

PLATE

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SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)

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-- End of Section Table of Contents --

SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)

PART 1 GENERAL

1.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for providing and maintaining a Resident Management System as described herein. Payment for the work covered under this section shall be distributed throughout the existing bid items.

1.2 CONTRACT ADMINISTRATION

The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Government accesses the system using the Government Mode of RMS (RMS GM) and the Contractor accesses the system using the Contractor Mode (RMS CM). The term RMS will be used in the remainder of this section for both RMS GM and RMS CM. The joint Government-Contractor use of RMS facilitates electronic exchange of information and overall management of the contract. The Contractor shall access RMS to record, maintain, input, track, and electronically share information with the Government throughout the contract duration in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Closeout
- Import/Export of Data

1.2.1 Correspondence and Electronic Communications

For ease and speed of communications, the Contractor shall exchange correspondence and other documents in electronic format to the maximum extent feasible. Some correspondence, including pay requests and payrolls, are also to be provided in paper format with original signatures. Paper documents will govern, in the event of discrepancy with the electronic version.

1.2.2 Other Factors

Other portions of this document have a direct relationship to the reporting accomplished through RMS. Particular attention is directed to Contract Clause 52.236-15 "Schedules for Construction Contracts"; Contract Clause 52.232-27 "Prompt Payment for Construction Contracts"; Contract Clause 52.232-5 "Payments Under Fixed-Price Construction Contracts"; Section 01 33 00 SUBMITTAL PROCEDURES; and Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS.

1.3 RMS SOFTWARE

RMS is a Windows-based program that can be run on a Windows-based PC

meeting the requirements as specified in the paragraph entitled "System Requirements". The Contractor shall download, install, and be able to utilize the latest version of the RMS software within 7 calendar days of receipt of the Notice to Proceed. RMS software, user manuals, access and installation instructions, program updates, and training information are available from the RMS website (<http://rmsdocumentation.com>). The Government and the Contractor will have different access authorities to the same contract database through RMS. The common database will be updated automatically each time a user finalizes an entry or change.

1.4 SYSTEM REQUIREMENTS

The following is the recommended system configuration to run the Contractor Mode RMS for full utilization of all features for all types and sizes of contracts. Smaller, less complicated projects may not require the configuration levels described below. Required configuration also noted below.

Recommended RMS System Requirements	
Hardware	
Windows-based PC	1.7 GHz i3; AMD A6 3650 GHz or higher processor (REQUIRED)
RAM	8 GB
Hard drive disk	100 GB space for sole use by RMS system
Monitor	Screen resolution 1366 x 768
Mouse or other pointing device	
Windows compatible printer	Laser printer must have 4 MB+ of RAM
Connection to the Internet	minimum 4 Mbs per user
Software	
MS Windows	Windows 7 x 64 bit (RMS requires 64 bit O/S) or newer (REQUIRED)
Word Processing software	Viewer for MS Word 2013, MS Excel 2013 or newer (REQUIRED)
E-mail	MAPI compatible (REQUIRED)
Virus protection software	Regularly upgraded with all issued Manufacturer's updates and is able to detect most zero day viruses (REQUIRED)

1.5 CONTRACT DATABASE - GOVERNMENT

The Government will enter the basic contract award data in RMS prior to granting the Contractor access. The Government entries into RMS will generally be related to submittal reviews, correspondence status, and Quality Assurance (QA) comments, as well as other miscellaneous

administrative information.

1.6 CONTRACT DATABASE - CONTRACTOR

Contractor entries into RMS establish, maintain, and update data throughout the duration of the contract. Contractor entries generally include prime and subcontractor information, daily reports, submittals, RFI's, schedule updates, and payment requests. RMS includes the ability to import attachments and export reports in many of the modules, including submittals. The contractor responsibilities for entries in RMS typically include the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

The Contractor shall enter all current Contractor administrative data and information into RMS within 7 calendar days of receiving access to the contract in RMS. This includes, but is not limited to, Contractor's name, address, telephone numbers, management staff, and other required items.

1.6.1.2 Subcontractor Information

The Contractor shall enter all missing subcontractor administrative data and information into RMS CM within 7 calendar days of receiving access to the contract in RMS or within 7 calendar days of the signing of the subcontractor agreement for agreements signed at a later date. This includes name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor is listed separately for each trade to be performed.

1.6.1.3 Correspondence

The Contractor shall identify all Contractor correspondence to the Government with a serial number. The Contractor shall prefix correspondence initiated by the Contractor's site office with "S" and shall prefix letters initiated by the Contractor's home (main) office with "H". Letters shall be numbered starting from 0001 (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C" or "RFP".

1.6.1.4 Equipment

The Contractor shall enter and maintain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Reports

The Contractor shall track the status of the project utilizing the reports available in RMS. The value of these reports is reflective of the quality of the data input. These reports include the Progress Payment Request worksheet, Quality Control (QC) comments, Submittal Register Status, and Three-Phase Control worksheets.

1.6.1.6 Request For Information (RFI)

The Contractor shall create and track all Requests For Information (RFI) in the RMS Administration Module for Government review and response.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The Contractor shall develop and enter a list of pay activities in conjunction with the project schedule. The sum of pay activities equals the total contract amount, including modifications. Each pay activity must be assigned to a Contract Line Item Number (CLIN). The sum of the activities assigned to a CLIN equals the amount of each CLIN.

1.6.2.2 Payment Requests

The Contractor shall prepare all progress payment requests using RMS and shall update the work completed under the contract at least monthly, measured as percent or as specific quantities. After the update, the Contractor shall generate a payment request and prompt payment certification using RMS. The Contractor shall submit the signed prompt payment certification and payment request as well as supporting data either electronically or by hard copy. Unless waived by the Contracting Officer, a signed paper copy of the approved payment certification and request is also required and will govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

The Contractor shall enter and track implementation of the 3-phase QC Control System, QC testing, transferred and installed property and warranties in RMS. The Contractor shall prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements in RMS. The Contractor shall maintain all data on a daily basis and shall ensure that RMS reflects all quality control methods, tests, and actions.

1.6.3.1 Quality Control (QC) Reports

The Contractor's Quality Control (QC) Daily Report in RMS is the official report. The Contractor can use other supplemental formats to record QC data, but information from any supplemental formats are to be consolidated and entered into the RMS QC Daily Report. Any supplemental information may be entered into RMS as an attachment to the report. QC Daily Reports must be finalized and signed in RMS within 24 hours after the date covered by the report. The Contractor shall provide the Government a printed signed copy of the QC Daily Report, unless waived by the Contracting Officer.

1.6.3.2 Deficiency Tracking

The Contractor shall use the QC Daily Report Module to enter and track deficiencies. Deficiencies identified and entered into RMS by the Contractor or the Government will be sequentially numbered with a QC or QA prefix for tracking purposes. The Contractor shall enter each deficiency into RMS the same day that the deficiency is identified and shall monitor, track, and resolve all QC and QA entered deficiencies. A deficiency is not considered to be corrected until the Government indicates concurrence in RMS.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS. Worksheets for the

three-phase control meetings are generated within RMS.

1.6.3.4 Labor and Equipment Hours

The Contractor shall enter labor and equipment exposure hours on a daily basis and shall roll up the labor and equipment exposure data into a monthly exposure report.

1.6.3.5 Accident/Safety Reporting

Both the Contractor and the Government enter safety related comments in RMS as a deficiency. The Contractor shall monitor, track, and show resolution for safety issues in the QC Daily Report area of the RMS QC Module. In addition, the Contractor shall follow all reporting requirements for accidents and incidents as required in EM 385-1-1, Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS, and as required by any other applicable Federal, State or local agencies.

1.6.3.6 Definable Features of Work

The Contractor shall enter each feature of work into the RMS QC Module. A feature of work may be associated with a single or multiple pay activities; however, a pay activity is only to be linked to a single feature of work.

1.6.3.7 Activity Hazard Analysis

The Contractor shall import activity hazard analysis electronic document files into the RMS QC Module utilizing the document package manager.

1.6.4 Submittal Management

The Contractor shall enter all current submittal register data and information into RMS within 7 calendar days of receiving access to the contract in RMS. The information shown on the submittal register in Section 01 33 00 SUBMITTAL PROCEDURES will already be entered into the RMS database when access is granted. The Contractor shall group electronic submittal documents into transmittal packages to send to the Government, except very large electronic files, samples, spare parts, mock ups, color boards, or where hard copies are specifically required. The Contractor shall track transmittals and update the submittal register in RMS on a daily basis throughout the duration of the contract. The Contractor shall submit hard copies of all submittals unless waived by the Contracting Officer.

1.6.5 Schedule

The Contractor shall enter and update the contract project schedule in RMS by either manually entering all schedule data or by importing the Standard Data Exchange Format (SDEF) file.

1.6.6 Closeout

Closeout documents, processes and forms are managed and tracked in RMS by both the Contractor and the Government. The Contractor shall ensure that all closeout documents are entered, completed, and documented within RMS.

1.7 IMPLEMENTATION

Use of RMS as described in the preceding paragraphs is mandatory. The

Contractor shall ensure that sufficient resources are available to maintain contract data within the RMS system. RMS is an integral part of the Contractor's required management of quality control.

1.8 NOTIFICATION OF NONCOMPLIANCE

The Contractor shall take corrective action within 7 calendar days after receipt of notice of RMS non-compliance by the Contracting Officer.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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Endangered Species Observer Program - Load Data Form

Endangered Species Observer Program - Daily Report

Endangered Species Observer Program - Weekly Summary

Endangered Species Observer Program - Sturgeon Incidental Take Data Form

Sea Turtle Take Form - Kemp's Ridley

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Sea Turtle Tagging and Relocation Report

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SECTION 01 57 20.00 10

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, equipment and performing all work required for protection of fish and wildlife resources and for the prevention of environmental pollution during and as a result of dredging operations and related activities, except for those measures set forth in other technical portions of the specifications.

1.2 DEFINITIONS

1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 Protection of Fish and Wildlife

- a. monitoring and keeping under control construction activities to minimize interference with, disturbance to and damage of fish and wildlife; and
- b. providing sea turtle monitoring equipment and observers.

1.3 GENERAL REQUIREMENTS

Minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work must be protected during the entire duration of this contract. Comply with all applicable environmental Federal, State and local laws and regulations. Any delays resulting from failure to comply with environmental laws and regulations will be the Contractor's responsibility.

1.4 SUBCONTRACTORS

The Contractor shall be responsible for ensuring that all subcontractors

comply with these environmental clauses.

1.5 MEASUREMENT AND PAYMENT

1.5.1 Measurement

Environmental protection requirements will not be measured.

a. Required turtle monitoring/protection equipment will not be measured, with the exception of National Marine Fisheries Service (NMFS) Approved Protected Species Observers and sea turtle and sturgeon trawling and relocation if the contract clause entitled "Changes" (FAR 52.243-4) is invoked for the NMFS-Approved Protected Species Observers or sea turtle and sturgeon trawling and relocation requirements.

b. If the contract clause entitled "Changes" (FAR 52.243-4) is invoked for NMFS-Approved Protected Species Observers, pay time for NMFS-Approved Protected Species Observers will be measured by the day. The day is defined as a 24-hour period beginning at 0000 hours and ending at 2400 hours. Portions of a day when observers are required to be present on the dredge will be considered as a full day.

c. If the contract clause entitled "Changes" (FAR 52.243-4) is invoked for the sea turtle and sturgeon trawling and relocation requirements, pay time for sea turtle and sturgeon trawling and relocation will be measured by the day. A day of trawling is defined as 24 hours of continuous trawling and relocation. Sea turtle and sturgeon trawling and relocation shall be performed as described in the paragraph entitled "Sea Turtle and Sturgeon Trawling and Relocation". Portions of a day when trawling and relocation is required will be considered as a full day.

1.5.2 Payment

No separate payment will be made for work covered under this section. Payment for these environmental protection requirements shall be included in the "Dredging" and "Option Dredging" items on the bidding schedule.

Payment for turtle monitoring/protection equipment shall be included in the "Dredging" and "Option Dredging" items on the bidding schedule. Payment for NMFS-Approved Protected Species Observers and sea turtle and sturgeon trawling and relocation requirements shall be made by an equitable adjustment if the contract clause entitled "Changes" (FAR 52.243-4) is invoked.

1.5.2.1 Sea Turtle Monitoring/Turtle Equipment

No separate payment will be made for sea turtle monitoring/protection equipment required. The monitoring/protection equipment is considered to be part of the dredge plant and the cost for such items shall be placed accordingly.

1.5.2.2 NMFS-Approved Protected Species Observers

If it is determined by the Contracting Officer that NMFS-Approved Protected Species Observers are required, then the contract clause entitled "Changes" (FAR 52.243-4) shall be invoked and payment for NMFS-Approved Protected Species Observers, accommodations and meals for NMFS-Approved Protected Species Observers, transportation of injured turtles and transportation of

NMFS-Approved Protected Species Observers shall be determined accordingly. The unit price submitted by the Contractor shall incorporate the necessary number of NMFS-Approved Protected Species Observers required to comply with the paragraph entitled "NMFS-Approved Protected Species Observer Requirements".

1.5.2.3 Sea Turtle and Sturgeon Trawling and Relocation

a. If it is determined by the Contracting Officer that sea turtle and sturgeon trawling and relocation is required, then the contract clause entitled "Changes" (FAR 52.243-4) shall be invoked and payment for mobilization and demobilization of sea turtle and sturgeon trawling and relocation and payment for sea turtle and sturgeon trawling and relocation, including all costs for furnishing labor, equipment, fuel, oil, materials, and supplies shall be determined accordingly.

b. If an additional hopper dredge or dredges is approved for simultaneous work on the contract as specified in Section 35 20 23.23, paragraph entitled "Addition of Plant", then the Contracting Officer will make the determination if an additional trawler is needed for each hopper dredge being used. If an additional trawler is deemed necessary, it shall meet the sea turtle and sturgeon trawling and relocation requirements within these specifications. Payment for an additional trawler, if required, will be made by an equitable adjustment in contract price under the contract clause entitled "Changes" (FAR 52.243-4).

c. No payment will be made for sea turtle and sturgeon trawling and relocation requirements when trawling equipment breakdown is such that the trawler does not operate during the day as described in paragraph 1.5.1.c. Pay time will resume when trawling operations recommence.

1.6 REPORTS

1.6.1 Implementation and Reporting

Within 120 hours after receiving Notice to Proceed, the Contractor shall submit, in writing, proposals for environmental pollution control, disposal of debris and trash, and an Environmental Protection Plan.

When directed by the Contracting Officer to a Secondary Dredging Region, the Contractor shall re-submit the protected species portion of the Environmental Protection Plan applicable to that region.

1.6.2 Reporting of Pollution Spills (33 CFR 153.203)

If an oil spill or chemical release occurs during the performance of this contract, the Contractor shall contact the National Response Center at 1-800-424-8802, as soon as possible. If telephone communications are not possible, the nearest US Coast Guard office may be contacted by radio to report the spill. The Contractor shall comply with the instructions from the responding agency concerning containment and cleanup of the spill, and shall provide the Contracting Officer with a complete written report of the incident.

1.6.3 Trawling Report

Immediately after completing each day of relocation trawling, the Contractor shall notify the Contracting Officer by telephone conveying the

results of the trawl. The results of each trawl shall be recorded on the Sea Turtle Trawling Report appended to the end of this section. In addition to the reporting requirements listed in Section 35 20 23.23, paragraph entitled "NMFS-Approved Protected Species Observer Reports", the Sea Turtle Trawling Report shall be furnished by the Contractor to Mr. Edward Creef, U.S. Army Corps of Engineers, New Orleans District, within 24 hours after completing the relocation trawl (email: Edward.D.Creef@usace.army.mil). Following completion of the project, a copy of the Contractor's log regarding sea turtles shall be forwarded to Mr. Edward Creef, Chief, Environmental Function and the Area Engineer within ten working days.

1.7 ENVIRONMENTAL PROTECTION PLAN

The Contractor shall establish and maintain a plan for environmental protection, to assure compliance with contract specifications. The Contractor shall also maintain records of environmental protection for all dredging operations, including but not limited to the following:.

- a. Environmental pollution control plan;
- b. Applicable Federal, State, and Local pollution control regulations;
- c. Air Pollution - dust, smoke, noise, etc.;
- d. Water Pollution - disposal of water, oil, etc.;
- e. Land Pollution - debris disposal, restoration of temporary construction sites, etc.;
- f. Training course for employees;
- g. Environmental Protection Plan - protected species requirements, etc; and
- h. Corrective actions taken.

1.8 APPLICABLE REGULATIONS

In order to prevent, and to provide for abatement and control of any environmental pollution arising from construction activities in the performance of this contract, the Contractor and his/her subcontractors shall comply with all applicable Federal, State and Local laws, and regulations concerning environmental pollution control and abatement.

1.9 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

See Section 01 30 00, paragraph entitled "Rights-of-Way", for a deviation from the government furnished drawing, plate or specifications (e.g., proposed borrow, disposal areas, staging areas, alternate access route, etc.).

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor, in writing, of any noncompliance with the environmental clauses and the corrective action to be taken. Such notice, when delivered to the Contractor or the Contractor's authorized representative at the site of work, shall be deemed sufficient for this purpose. If the Contractor fails or refuses to comply

promptly, the Contracting Officer may issue an order stopping all or part of the work, until satisfactory corrective action has been taken. No part of time lost due to such a stop order shall be made the subject of a claim for time extensions or for excess costs or damages by the Contractor.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 JANITOR SERVICES

The Contractor shall furnish daily janitorial services for the dredge and attendant plant during the entire life of the contract. The bathroom facilities shall be kept clean and sanitary at all times. Facilities for the storage, preparation and serving of food will likewise be kept clean and sanitary. Services shall be performed at such a time and in such a manner to least interfere with operations and need only be accomplished when the facilities are in daily use.

3.2 PROTECTION OF LAND RESOURCES

All items having any apparent historical or archeological interest which are discovered in the course of any contract activities shall be carefully preserved. The Contractor shall leave the archeological find undisturbed and shall immediately report the find to the Contracting Officer so that the proper authorities may be notified.

3.3 PROTECTION OF WATER RESOURCES

3.3.1 Contamination of Water

The Contractor shall not pollute any body of water with fuels, oils, bitumens, calcium chlorides, herbicides, insecticides, other materials harmful to fish, shellfish, or wildlife or with materials that may be a detriment to outdoor recreation. The redistribution or reinjection of pollutants pre-existing in dredged material or river water will not be considered as pollution caused by the Contractor.

3.3.2 Water Quality Monitoring

The Contractor shall assist the Government, using available on site plant and manpower, in monitoring the water quality aspects of the dredging and disposal operations.

3.4 DISPOSAL OF MATERIALS

- a. The Contractor shall provide daily trash collection and cleanup of the dredge and attendant plant.
- b. Disposal locations for waste materials, effluents, trash, garbage, oil, grease, chemicals, etc., shall be such that harmful debris will not enter the waterway adjacent wetlands, or the disposal areas; prevent the use of the area for recreation; or present a hazard to wildlife. Debris disposal shall be in accordance with applicable Federal, State and Local regulations and shall be performed in a manner approved by the Contracting Officer.

3.5 MAINTENANCE OF POLLUTION CONTROL FACILITIES

During the life of this contract, the Contractor shall maintain all facilities constructed for pollution control for as long as the operations creating the particular pollutant are being carried out, or until the material concerned has become stabilized to the extent that pollution is no longer being created. Early in the contract period the Contractor shall conduct a training course that will emphasize all phases of environmental protection. This course shall involve all Contractor personnel working on the contract. The Contractor shall notify the Contracting Officer of the scheduled time for this course so that the Contracting Officer's representative can attend.

3.6 PROTECTION OF FISH AND WILDLIFE

The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention, along with measures for their protection, shall be listed in the Contractor's Environmental Protection Plan. Species including, but not limited to the following sea turtle species: the kemp's ridley (*Lepidochelys kempii*), loggerhead (*Caretta caretta*), green turtle (*Chelonia mydas*) and the West Indian manatee shall be listed in the Contractor's Environmental Protection Plan. The submitted Environmental Protection Plan must be approved by the Contracting Officer prior to the start of construction activities.

3.7 ENDANGERED SPECIES PROTECTION

3.7.1 Sea Turtle Considerations

a. The Contractor shall instruct all Contractor personnel associated with the project of the potential presence of sea turtles and the need to avoid contact with these animals. All Contractor personnel shall be advised that there are civil and criminal penalties for harming, harassing or killing sea turtles, which are protected under the Endangered Species Act of 1973.

b. When dredging in regions which require equipment as described in the paragraph entitled "Additional Sea Turtle Requirements", to minimize the potential of intercepting sea turtles, every effort shall be made to minimize pump operation while the dragheads are suspended in the water column including but not limited to the following:

(1) When initiating dredging, suction through the dragheads shall be allowed just long enough to prime the pumps, then the dragheads must be placed firmly on the bottom.

(2) When lifting the dragheads from the bottom, suction through the dragheads shall be allowed just long enough to clear the lines, then must cease.

(3) Pumping water through the dragheads shall cease while maneuvering or during travel to/from the disposal area.

(4) Raising the dragheads off the bottom to increase suction velocities is not acceptable. The act of placing a draghead on the bottom is a primary cause of sea turtle takes because it causes the sea turtle to be trapped directly beneath the

draghead. The primary adjustment for providing additional mixing water to the suction line shall be through water intake ports on top of the draghead as described in paragraph 35 20 23.23-2.1.4.f.

(5) During turning operations the pumps must either be shut off or reduced in speed to the point where no suction velocity or vacuum exists.

c. The Contractor shall be held responsible for any turtle harmed, harassed or killed as a result of construction activities not conducted in accordance with these specifications.

d. Prior to the commencement of dredging and throughout the dredging operations, the Government Inspector will inspect specific sea turtle requirements. The list of inspections that the Government Inspector will perform is on a sea turtle inspection checklist as described in the paragraph entitled "USACE Sea Turtle Inspection Checklist for Hopper Dredges" attached at the end of this section. Any deficiencies found by the Government Inspector will be handled as described in the paragraph entitled "Notification of Noncompliance".

3.7.2 Manatee Considerations

The West Indian manatee may be present in the project vicinity. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees in the area and the need to avoid collisions with these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing or killing manatees. Manatees are protected under the Marine Mammal Protection Act of 1972, and the Endangered Species Act of 1973. The Contractor shall be held responsible for any manatee harmed, harassed or killed as a result of construction activities not conducted in accordance with these specifications.

Manatee Signs. Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8.5-inch by 11-inch reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary three foot by four foot sign reading "CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8.5-inch by 11-inch reading "CAUTION: MANATEE HABITAT. EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction.

a. Special operating conditions if manatees are present in the project area.

(1) If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment shall be shut down and all construction activities shall cease to ensure protection of the manatee. Construction activities shall not

resume until the manatee has departed and the 50-foot buffer has been reestablished.

(2) If a manatee(s) is sighted in the project area, all vessels associated with the project shall operate at "no wake/idle" speeds at all times, and vessels will follow routes of deep water whenever possible, until the manatee has departed the project area. Boats used to transport personnel shall be shallow-draft vessels, preferably of the light-displacement category, where navigational safety permits.

b. Manatee Sighting Reports. Any sightings of manatees, or collisions with a manatee, shall be immediately reported to the Corps of Engineers. The point of contact within the Corps of Engineers will be Mr. Edward Creef, PHONE (504) 862-2521, EMAIL: Edward.D.Creef@usace.army.mil.

3.8 SEA TURTLE SIGHTINGS

a. As a result of consultation under Section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers has agreed to report any sea turtle activity to the NMFS. This reporting requirement is extended to contractors working for the U.S. Army Corps of Engineers. The Contractor shall notify the personnel (point of contact), listed below for the particular District the work is being performed in of any sightings, collisions with, injuries or killing of sea turtles by telephone within 12 hours of the action. The notification should include the number and species of turtles (if known) impacted and the time the activity occurred.

New Orleans District
Mr. Edward Creef
Phone: 504-862-2521
Email: Edward.D.Creef@usace.army.mil

Galveston District
Ms. Lisa Finn
Phone: 409-766-3949
Email: Lisa.M.Finn@usace.army.mil

Mobile District
Ms. Lekesha Reynolds
Phone: (251) 690-3260
Email: Lekesha.W.Reynolds@usace.army.mil

b. If the Contractor's personnel observe any sea turtles in the vicinity of the work site, such sightings shall be promptly reported to the Government Inspector/Contracting Officer's Representative and to the NMFS-Approved Protected Species Observer, if observer is onboard the dredge. Partial List of NMFS-Approved Protected Species Observers is located in the paragraph entitled "Partial List of NMFS-Approved Protected Species Observers". If known, then the species of turtle should be reported as well. Turtle identification pamphlets shall be kept on the bridge of the dredge to aid in determining the species sighted.

3.9 ADDITIONAL SEA TURTLE REQUIREMENTS

In addition to the reporting requirements listed in the paragraph entitled

"Sea Turtle Sightings", the Dredging Regions listed within the paragraph entitled "Sea Turtle Dredging Regions" shall require sea turtle monitoring personnel and equipment as described in the paragraphs entitled "Turtle Monitoring Equipment", "NMFS-Approved Protected Species Observers", "Sea Turtle Reporting", "Turtle Deflector Requirements", and "Sea Turtle and Sturgeon Trawling and Relocation" if the contract clause entitled "Changes" (FAR 52.243-4) is invoked for the sea turtle and sturgeon trawling and relocation requirements.

3.9.1 Sea Turtle Dredging Regions

In addition to being categorized as a Primary or Secondary Dredging Region, the following Regions will also be further categorized as "Sea Turtle Dredging Regions":

- a. Calcasieu River and Pass, Bar Channel
- b. Galveston District - All Locations
- c. Mobile District - All Locations

3.9.2 NMFS-Approved Protected Species Observer Requirements

This paragraph applies only if the contract clause entitled "Changes" (FAR 52.243-4) is invoked for the NMFS-Approved Protected Species Observer requirements.

- a. Sea turtle requirements vary with location. See the table in the paragraph entitled "Primary and Secondary Dredging Regions: Sea Turtle Requirements Table" for locations where NMFS-Approved Protected Species Observers are required. For locations where Sea Turtle requirements are in effect and at the direction of the Contracting Officer, NMFS-Approved Protected Species Observers shall monitor the presence of sea turtles. A list of NMFS-Approved Protected Species Observer companies can be found at the NMFS website: http://sero.nmfs.noaa.gov/protected_resources/section_7/observer/documents/observer_companies_updated_4_2013.pdf. A partial list is located in the paragraph entitled "Partial List of NMFS-Approved Protected Species Observers".
- b. The observers shall be provided quarters and meals aboard the dredge at least equal to that of the dredge crew. The Contractor shall provide safety training for all observers working aboard the dredge. Observers will continuously monitor all of the hopper inflow and/or over flow screens, as required in the paragraph entitled "Turtle Monitoring Equipment", 24 hours per day during dredging mode, to detect turtles or turtle parts. Screen monitoring shall be conducted as required to effectively watch these screens, based on the design, configuration and position thereof. The NMFS-Approved Protected Species Observers shall be provided access and use of a facsimile and cellular telephone 24 hours per day to insure, in the event of a sea turtle take, the observers will be able to fulfill the requirements of the paragraph entitled "Sea Turtle Reporting".
- c. The Contractor shall be responsible for assuring that:
 - (1) Any state or federal approvals necessary to conduct sea turtle monitoring as described in this contract are obtained.

(2) Any necessary state or federal clearances for the transportation of injured sea turtles to rehabilitation facilities are obtained.

(3) Temperatures in the waterway are recorded, in degrees Fahrenheit, at the water surface, every eight hours for the duration of each dredging assignment. The waterway mileage and latitude/longitude shall be recorded corresponding to each temperature reading.

(4) During transit of the dredge to or from the disposal site(s), the observer shall assure that the hopper screens are cleaned of debris and correctly re-installed on the dredge for return to dredging mode. The observer shall report damage of the screens to the Contractor immediately upon detection of such damage and the screens shall be repaired or replaced before dredging is resumed.

(5) Complete turtle data reporting is made, as required in the paragraph entitled "Sea Turtle Reporting".

(6) Positively identified turtle parts are disposed of at the dredge material disposal site(s). All sea turtles, sturgeons, or portions thereof, recovered from the hopper screens or dragheads shall be photographed by the observer using a digital camera capable of recording images with a resolution of at least 300 dpi. Immediately following the incidental take of any protected species, digital photos of these takes shall be provided via e-mail, CD-ROM, or DVD-ROM to the Contracting Officer's Representative in a JPG or TIFF format. Digital photos of hopper dredge screens and dragheads shall be opportunistically taken to document the condition of sea turtle protection equipment. Digital photos of sea turtles, sturgeons, and sea turtle protection equipment shall be included or attached to the final project report to be provided to Mr. Edward Creef, US Army Corps of Engineers, New Orleans District, by the Contractor. The photos shall be attached to respective reports for documentation and later identification. Observer(s) shall measure, weigh, tag, and release any uninjured turtles incidentally taken by the dredge. Turtle handling and tagging methods shall be performed in accordance with NMFS approved procedures. Injured turtles shall be transported to a rehabilitation facility such as: Marineland at Marineland, Florida; Sea World at Orlando, Florida; or the Aquarium of the Americas at New Orleans, Louisiana. Observer(s) or their authorized representative shall provide NMFS-approved containers for turtle transport.

(7) All live or dead sea turtles and sturgeons recovered in hopper screens and/or dragheads shall be tissue-sampled by the observer. Sea turtle tissue samples shall be taken in accordance with NMFS' Southeast Fisheries Science Center's procedures for sea turtle genetic analyses. Tissue sampling protocols can be found at the following USACE Jacksonville District website: <http://www.saj.usace.army.mil/Portals/44/docs/Engineering/ConstructionForms/geneticsampleprotocol.pdf>. All sea turtle tissue samples shall be collected, properly stored, and mailed within 60 days of the completion of dredging work to:

NOAA, National Marine Fisheries Service
Southeast Fisheries Science Center

Attn: Lisa Belskis
75 Virginia Beach Drive
Miami, Florida 33149

Sturgeon tissue samples (i.e., fin clips or barbell clips) shall be taken in accordance with NMFS SERO's Protected Resources Division's Sturgeon Tissue Sampling Protocol found at the NMFS SERO PRD web site address:
<http://www.nefsc.noaa.gov/nefsc/publications/tm/tm215/tm215.pdf>.
All sturgeon tissue samples shall be collected, properly stored, and mailed within 60 days of the completion of dredging work to:

NOAA, National Marine Fisheries Service
Protected Resources Division
263 13th Avenue South
St. Petersburg, Florida 33701

- d. The Contractor may choose to have the NMFS-Approved Protected Species Observers provide educational information to all dredge personnel on sea turtles.

3.9.3 Sea Turtle Reporting

This paragraph applies only if the contract clause entitled "Changes" (FAR 52.243-4) is invoked for the NMFS-Approved Protected Species Observer requirements.

The NMFS-Approved Protected Species Observers shall maintain a log detailing all incidents, including sightings, collisions with, injuries, or killing of sea turtles occurring during the contract period. The results of the monitoring shall be recorded on copies of the observation sheets, entitled "Endangered Species Observer Program - Load Data Form", "Endangered Species Observer Program - Daily Report" and "Endangered Species Observer Program - Weekly Summary", attached at the end of this section or a similar form. For each load, screen watch data shall be consolidated on a single sheet prior to beginning a new sheet for the next load. An observation sheet shall be completed for each load whether or not turtles are sighted in the waterway or turtle parts are detected on the screens. Dredging shall not commence until the consolidated report is completed from the previous dredging load. If dredging is conducted at a location where NMFS-Approved Protected Species Observers are not required on the dredge, the Contractor shall notify the District point of contact listed in the paragraph entitled "Sea Turtle Sightings", of any sea turtle sightings or incidents. All consolidated and completed data reports shall be forwarded to the District point of contacts, and report copies shall be supplied to the Contracting Officer and Edward Creef (email: Edward.D.Creef@usace.army.mil) within 24 hours after completion of data reports. If dredging is conducted at a location where NMFS-Approved Protected Species Observers are required the observer should notify the District point of contact of any sightings, collisions with, injuries or killing of sea turtles by telephone or email within 12 hours of the action. The notification should include the number and species of turtles impacted and the time the activity occurred.

Observer reports of protected species incidental takes must be emailed to NMFS' Southeast Regional Office (email: takereport.nmfsser@noaa.gov) within 24 hours of any sea turtle, sturgeon, or other protected species take. Examples of the incidental take forms entitled "Endangered Species Observer Program - Sturgeon Incidental Take Data Form", "Sea Turtle Take Form -

Kemp's Ridley", "Sea Turtle Take Form - Loggerhead" and the "Sea Turtle Take Form - Green Turtle" are attached.

Depending on the number and/or species of sea turtles impacted in a single load or throughout the contract duration, the Contracting Officer or his/her representative may direct a temporary shut down of dredging while the District evaluates measures to reduce the likelihood of additional sea turtle takes.

3.10 TURTLE MONITORING EQUIPMENT

a. Sea turtle requirements vary with location. See the table in the paragraph entitled "Primary and Secondary Dredging Regions: Sea Turtle Requirements Table" for locations where turtle monitoring equipment is required. For locations where Sea Turtle requirements are in effect or at the direction of the Contracting Officer, the dredge shall have either hopper in-flow screening correctly positioned or hopper overflow screening correctly installed if overflowing will occur. The method and location of screening selected shall depend on individual dredge design. The screens shall have openings no greater than four inch by four inch. The screens shall sample 100 percent of the in flow or overflow, as applicable and shall remain in place for the period described at the beginning of this paragraph. The screen structure shall be designed to withstand all forces exerted on the screens during dredging operations. Screen design and operation shall be approved by the Contracting Officer's Representative prior to commencement of dredging. No dredging can proceed until screen design and operation is approved and installed. Damaged screens shall be repaired by the Contractor before commencing dredging on the load subsequent to the time the damage is detected.

b. For locations where Sea Turtle requirements are in effect or at the direction of the Contracting Officer, the Contractor shall install and maintain floodlights, approved by the Contracting Officer, suitable for illumination of the screens to allow the observer(s) to safely monitor the retained contents during non-daylight hours.

3.11 TURTLE DEFLECTOR REQUIREMENTS

a. Sea turtle requirements vary with location. See the table in the paragraph entitled "Primary and Secondary Dredging Regions: Sea Turtle Requirements Table" for locations where turtle deflectors are required. For locations where Sea Turtle requirements are in effect or at the direction of the Contracting Officer, rigid sea turtle deflectors shall be installed. No more than twelve hours after Government notice, the Contractor shall have rigid turtle deflectors installed and/or removed from the dredge dragheads, ready to return to dredging.

b. Refer to Section 35 20 23.23, paragraph entitled "Dredge Plant", for turtle deflector specifications.

3.12 SEA TURTLE AND STURGEON TRAWLING AND RELOCATION

Subparagraphs 3.12.1 through 3.12.9 apply only if the contract clause entitled "Changes" (FAR 52.243-4) is invoked for the sea turtle and sturgeon trawling and relocation requirements.

3.12.1 Government Option

Sea turtle requirements vary with location. See the table in the paragraph entitled "Primary and Secondary Dredging Regions: Sea Turtle Requirements Table" for locations where turtle trawling and relocation is required. Sea Turtle and Sturgeon Trawling and Relocation, as specified herein, will be at the option and in the discretion of the Government to aid in preventing the taking of sea turtles during dredging operations with the approved turtle deflector in place. Within 72 hours after receiving written directions from the Contracting Officer, the Contractor shall begin trawling for turtles to relocate them from the channel area. Relocation trawling shall be performed so as to not interfere with dredging operations in progress. If dredging operations cease for a period of 12 hours or more, relocation trawling shall be conducted for a minimum of 4 hours prior to resumption of dredging operations.

3.12.2 Suspension of Dredging and Relocation Trawling

Should there be a tearing of nets, or breakdown of other equipment that would cause the trawler to leave the area where dredging is underway during any period of time where relocation trawling is required, the dredge may continue to operate for up to 48 hours, as long as no turtles are taken, and subject to the discretion of the Contracting Officer. Should there be dangerously high seas that would cause the trawler to leave the dredging area when relocation trawling is required, the dredge may continue to operate, as long as no turtles are taken and subject to the discretion of the Contracting Officer.

3.12.3 Sea Turtle and Sturgeon Trawling Procedures

An NMFS-Approved Protected Species Observer shall conduct sea turtle and sturgeon trawling. Any captured sea turtles shall be relocated as directed by the NMFS-Approved Protected Species Observer a distance of five miles away west of the channel centerline. Any captured sturgeons shall be released immediately after capture and handling for measurements away from the dredging site or into already dredged areas. Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded using the Sea Turtle Trawling Report appended to the end of this Section. The trawler shall be equipped with 60-foot nets constructed from eight inch mesh (stretch) fitted with mud rollers and flats as specified in the Turtle Trawl Nets Specifications appended to the end of this section. Paired net tows shall be made for 24 hours per day, as directed by the Contracting Officer or his/her authorized representative. The tows shall be performed in shifts, to be determined by the Contracting Officer or his/her authorized representative, and the trawler shall be available for operation 24 hours a day. Positions at the beginning and end of each tow shall be determined from GPS Positioning equipment. Refer to EM 1110-1-1003 "Navstar global positioning system surveying", paragraph 5.3 and Table 5-1, for acceptable GPS criteria.

3.12.4 Trawling Requirements

The Contractor shall be responsible for obtaining any and all permits related to trawling from the appropriate state and Federal agencies. All aspects of the trawling shall be coordinated with the U.S. Army Corps of Engineers, New Orleans Area Office, contact the Administrative Contracting Officer.

Trawling operations shall be conducted in the vicinity of dredge operations, but shall maintain a safe distance from that dredge. NOTE: ALL TRAWLING ACTIVITIES, VESSELS AND EQUIPMENT SHALL COMPLY WITH THE CONTRACTOR'S ACCIDENT PREVENTION PLAN AND THE REQUIREMENTS OF EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL. Trawling shall be conducted with and against the tidal flow at a speed not to exceed 3.5 knots using repetitive trawls in the channel or other work area not to exceed 30-minutes (total time). Trawls shall be made in the center, green and red sides of the channel such that the total width of the channel bottom is trawled.

3.12.5 NMFS-Approved Protected Species Observer

Trawling shall be conducted under the supervision of a biologist approved by NMFS. A letter of approval from NMFS shall be provided to the Contracting Officer or his/her authorized representative prior to commencement of trawling. If trawling in Louisiana territorial waters outside of the shrimping season, the NMFS-Approved Protected Species Observer must also possess a Scientific Collecting Permit from the Louisiana Department of Wildlife and Fisheries (point of contact is Ms. Karen Foote at 225-765-2384).

3.12.6 Turtle Excluder Devices

Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) must be obtained from NMFS (contact Nicole Bonine at 727-824-5336). Any necessary State or Federal clearances for the capture and relocation of sea turtles must also be obtained. Approvals must be submitted to the Contracting Officer or his/her authorized representative prior to trawling.

3.12.7 Water Quality And Physical Measurements

Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height and precipitation shall be recorded on the Sea Turtle Trawling Report appended to the end of this Section. High and low tides shall be recorded.

3.12.8 Sea Turtle/Sturgeon Handling and Measurements

3.12.8.1 Handling

At least one crewmember who is a NMFS-Approved Protected Species Observer shall be on board the trawler during the trawl. The NMFS-Approved Protected Species Observer shall be responsible for handling of captured sea turtles and sturgeons. Each captured turtle or sturgeon shall be identified, scanned for PIT tags, measured, tagged, tissue sampled and released and data recorded on the Sea Turtle Tagging and Relocation Report appended to the end of this Section. Presence of PIT tags shall be scanned for by using a multi-frequency scanner capable of reading multiple frequencies (including 125-, 128-, 134- and 400-kHz tags) and reading tags deeply embedded in muscle tissue. Release of the turtles shall be accomplished at locations five miles west of the channel C/L, at time intervals designated by the NMFS-Approved Protected Species Observer, sufficient to ensure the viable handling and relocating of the sea turtles. Sea turtles and sturgeons may also be carefully transferred to another vessel for transportation to the release location to enable the relocation trawler to continue sweeping the dredging site.

3.12.8.2 Handling Fibropapillomatose Turtles

Anyone handling sea turtles infected with fibropapilloma tumors shall either:

- a. Clean all equipment that comes in contact with the turtle with mild bleach solution between the processing of each turtle, or
- b. Maintain a separate set of sampling equipment for handling turtles displaying fibropapilloma tumors or lesions.

3.12.8.3 Measurements

- a. Turtle measurements shall be recorded and shall include at a minimum: weight; straight-line length; straight-line width; and tail length. Turtles shall be tagged with NMFS #681 Inconel tags in each of the front flippers according to National Marine Fisheries Service (NMFS) protocol. Aseptic conditions shall be maintained for tags and tag attachment.
- b. Sturgeon measurements shall be recorded and shall include at a minimum: weight; total length; and fork length.

3.12.9 Repair and Replacement of Damaged Trawl Nets

The Contractor, at the time of mobilization, shall provide trawl nets that meet the requirements specified in the Turtle Trawl Net Specifications at the end of this section. Trawl nets that are damaged shall be repaired or replaced by the Contractor at no additional expense to the Government. Tools, supplies and materials for repairing nets shall be kept aboard the trawler. In the event of damage to trawl nets, one hour will be allowed to either repair or replace them. The Contractor shall have at least one set of replacement nets immediately available at all times, to insure that the dredging work is not adversely delayed due to trawler down-time for replacing damaged nets. It is recommended that a second set of replacement nets be available aboard the trawler.

3.13 PARTIAL LIST OF NMFS-APPROVED PROTECTED SPECIES OBSERVERS

<p>Christopher Slay, President * Coastwise Consulting (Environmental Consultants - Land, Sea, Air) 173 Virginia Avenue Athens, GA 30601 706-543-6859 904-261-8518 Fax/Tel cslay@att.net</p>	<p>Trish Bargo* East Coast Observers, Inc. P.O. Box 6192 Norfolk, VA 23508 757-227-5779 757-965-6766 Fax 757-880-7636 Cell tbargo@eastcoastobservers.com</p>	<p>REMSA, Inc.* 124 W Queens Way Hampton, VA 23669 757-722-0113 Fax: 757-722-0638</p>
<p>Captain Michele Finn A.I.S., Inc. 25910 Canal Road Orange Beach, AL 36561 617-276-6584 michelef@aisobservers.com</p>	<p>CSA Ocean Services Teresa V. Bohuszewicz 8502 SW Kansas Avenue Stuart, FL 34997 772-219-3000 321-537-3291 Cell 772-219-3010 Fax tvb@conshelf.com www.csaocean.com</p>	

* Contractors that also provide sea turtle and sturgeon trawling and relocation services.

3.14 PRIMARY AND SECONDARY DREDGING REGIONS: SEA TURTLE REQUIREMENTS TABLE

Sea Turtle Requirements In Effect	New Orleans District			Mobile District All Locations	Galveston District All Locations
	Calc. River, Pass & Bar Channel	Miss. River Southwest Pass	Miss. River Crossings		
Turtle Screen Installed	Yes	No	No	Yes	Yes
Floodlights Installed	Yes	No	No	Yes	Yes
NMFS-Approved Protected Species Observers Required	Yes	No	No	Yes	Yes
Sea Turtle Deflectors Installed	Yes	No	No	Yes	Yes
Sea Turtle Trawling and Relocation	CO	No	No	CO	CO

Notes:

1. Sea turtle requirements shall not be in place for locations showing an indication of "No". However, through an equitable adjustment to the contract, the Contracting Officer or his/her representative may require NMFS-Approved Protected Species Observers or sea turtle monitoring equipment for locations showing an indication of "No".
2. The dredge shall arrive at the job site with the sea turtle requirements in place for locations where "Yes" is indicated.
3. For locations when "CO" is indicated, the requirement will be at the option and direction of the Contracting Officer and subject to the contract clause entitled "Changes" (FAR 52.243-4).

3.15 OPERATIONS AND DREDGING ENDANGERED SPECIES SYSTEM PROGRAM (ODESS)

3.15.1 Monitoring Endangered Species

Maintenance of US waterways for navigation is essential for national and international trade, job creation, and national security as well as for hydropower, flood protection, municipal water supply, agricultural irrigation, recreation, and regional development.

Typically, cutterhead pipeline, hopper, and mechanical dredges are used to maintain navigation depths in these channels and to construct new waterways. However, hopper dredging in the southeastern US potentially impacts five species of threatened or endangered sea turtles (Kemp's ridley, leatherback, loggerhead, green, and hawksbill) and sturgeon.

To monitor these impacts and assist in the evaluation of these data, the US Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) created the Sea Turtle Data Warehouse (STDW) in 1992. The database was designed as a central repository for current and historical data on impacted sea turtles.

In 2014 the US Army Corps of Engineers, National Dredging Quality Management Program (DQM), at the request of USACE Headquarters (HQUSACE), partnered with ERDC; the US Army Corps of Engineers, Mobile District, Spatial Data Branch (CESAM-OP-J) and Bowhead to develop a new and enhanced STDW database and website. This new Program is referred to as the Operations & Dredging Endangered Species System (ODESS) Program. The use of ODESS will facilitate enhanced monitoring and data collection, enable faster transmittal of information, and meet threatened and endangered species reporting requirements to the National Marine Fisheries Service (NMFS).

In order to monitor dredging impacts on threatened and endangered aquatic species, the dredge shall be equipped with a dedicated tablet computer running ODESS software to track and document the presence of sea turtle, sturgeon, and marine mammal species during dredging operations.

The ODESS system, which consists of a tablet computer with an Internet connection, shall be a standalone system, exclusive to other systems, and shall have USACE ODESS data collection and reporting software, referred to as the ODESS Field Collector (FC) tool, installed by USACE ODESS support personnel. In the event hardware or software problems prevent the storage or transmission of the collected data, paper copies of the latest ODESS forms and information shall be maintained and submitted to ODESS Support and the USACE Inspector or Contracting Officer according to the schedule outlined in the contract specifications.

3.15.2 Observer Qualifications and Training

Prior to the initiation of the project, observers shall be familiar with the operation of the ODESS FC tool and proficient in its use so as to be able to prepare and transmit the results of their observations. ODESS system webinar training can be requested by contacting ODESS Support at ODESS@usace.army.mil or 1.877.840.8024.

Depending on the target audience (observer, dredging Contractor, USACE District personnel, or other Federal agencies), ODESS training could, in addition to the webinar training, consist of demonstrating the steps involved in setting up the FC tool on the dredge, loading

observer-collected data and attachments into the FC tool, submitting these data and attachments to the ODESS database, and/or navigating around the ODESS public website to view and pull down data and/or decision-making information for later analysis.

3.15.3 Observer Data Collection and Reporting

Observers shall record the results of the threatened and endangered species monitoring (described in the paragraph entitled "Endangered Species Protection") in the ODESS system by filling in the appropriate electronic forms on the ODESS FC tool and transmitting the data to the ODESS database. If there is an issue with recording data straight to the FC tool due the logistical nature of how the observer is collecting this data, paper copies of these forms can be downloaded from the ODESS public website (<http://dqm.usace.army.mil/odess/#/download>) and later entered into the FC tool when the observer has the best opportunity.

Observers are required to use the FC tool to send all incident attachments and any necessary documentation (i.e., pictures, etc). Do not send attachments via personal email unless the FC tool is unavailable. Also, the paper forms, if needed, should be used as either a "scratch pad" for data collection notes or used any time the FC tool becomes unavailable. The FC tool is the primary means of observer data collection and reporting not the paper forms. It is not required to scan, attach and submit a copy of the load and incident paper forms as part of the electronic incident record unless it is needed to support the electronic incident record (e.g., species diagram markups).

3.15.3.1 Start of the Project

Prior to the start of dredging, observers shall verify that the ODESS FC tool is installed and operational on a dredge's dedicated tablet computer and that a viable Internet connection is available. In addition, before a project is initiated, on the ODESS FC tool homepage observers shall retrieve (or "pull down") project-specific information from the ODESS database and perform a one-time setup of the dredging project by establishing the dredge name and time zone.

3.15.3.2 During the Project

The following forms shall be used in the FC tool and submitted to the ODESS database at the indicated reporting frequency.

a. Load Data Form - Observers shall complete the Load Data Form, including a description of screen contents and sea conditions, based on their observations. This form shall be completed and transmitted to the ODESS database for each load. At the end of each observer shift, or when an Internet signal is available (not to exceed 24 hours from the start of the shift), the observer shall submit all of his/her Load Data Forms. If this is not possible due to hardware or software problems, the observer shall revert to email submission of the forms to ODESS@usace.army.mil.

b. Sea Turtle Incidental Data Form - If a sea turtle or its remains are identified during a load inspection, after the appropriate parties are notified (according to the requirements identified in the endangered species compliance section of the contract specification), a Sea Turtle Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the

incident). Any applicable documentation (scanned copies of the paper observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

c. Sturgeon Incidental Data Form - If a sturgeon or sturgeon parts are identified during a load, after the appropriate parties are notified (according to the requirements identified in the endangered species compliance section of the contract specification), a Sturgeon Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

d. Marine Mammal Observation Data Form - If a large whale is observed, both the Dredge Load and the Marine Mammal Observation Data Forms shall be completed and submitted (not to exceed 12 hours after the observation) to ODESS Support at ODESS@usace.army.mil consistent with the endangered species compliance section (described in the paragraph entitled "Endangered Species Protection").

3.15.3.3 End of the Project

At the completion of project, the dredging Contractor shall coordinate with a designated USACE district QA/QC point of contact (POC) to determine whether electronic or paper copies of all applicable observer paper forms will be submitted for the project. Information previously entered on the Post Hopper Dredging Checklist will be available on the ODESS public website (<http://dqm.usace.army.mil/odess>) for the dredging project.

3.15.4 Hardware Requirements

The dredge shall be equipped and the Contractor is responsible for an ODESS hardware system consisting of a tablet computer, wireless keyboard, wireless mouse and data modem (or equivalent onboard internet connection) along with a proper tote bag and setup location for the afore mentioned hardware components. If a hardware problem occurs, or if a part of the system is physically damaged, the Contractor shall be responsible for repairing it within 48 hours of determination of the condition. The Contractor shall also keep ODESS personnel updated on the status of the onboard ODESS system and the progress of any repairs.

3.15.4.1 Computer

The Contractor shall provide a dedicated onboard tablet computer for use by the observers and shall have ODESS software installed on it prior to project initiation. This computer shall be located and oriented to allow data entry and data viewing. It must meet or exceed the following specifications:

Tablet Hardware Component	Specification
CPU	Intel or AMD processor with a (non-overclocked) clock speed of at least 2.4 gigahertz (GHz)
Hard Disk	128 gigabytes (GB); solid state internal storage
RAM	4 gigabytes (GB)
Network Adapter	Internal wired or wireless network hardware to match internet connection
Video Adapter	Support for 1024x768 resolution at 16-bit color depth
Display	>= 10.8 in.
Integrated Camera	2MP HD webcam (front); 8MP (back)
Ports	1 free USB port

3.15.4.2 Internet Access

The Contractor shall maintain an Internet connection capable of transmitting data to the ODESS database. The telemetry system shall always be available and have connectivity in the contract area. If connectivity is lost, unsent data shall be stored locally within the FC tool and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the Internet connection available for data transmission to the ODESS database. The hardware and software must be configured to allow remote access to the computer by USACE ODESS personnel. Coordination between the dredging company's IT and ODESS Support may be required in order to configure remote access through any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum reporting requirements in all operating conditions.

3.15.5 Software Requirements

ODESS personnel shall be responsible for installing and testing all ODESS software tools on the dedicated onboard ODESS tablet computer. No other software which conflicts with the ODESS function of recording and transmitting data shall be installed on the tablet computer. The Contractor shall be responsible for installing and/or maintaining any necessary manufacturer-provided software for the installed hardware. If any software problem occurs, the Contractor shall contact ODESS Support at ODESS@usace.army.mil or 1.877.840.8024.

The ODESS tablet computer shall have the following minimum software installed in support of the ODESS system.

Software Component	Specification
Operating System	Windows 10, Contractor-installed

Software Component	Specification
Browser	Chrome, Internet Explorer, Contractor-installed (Latest version recommended. Chrome is preferred.)
ODESS Software	Field Collector (FC) tool, USACE ODESS Support-installed
Remote Access Software	Team Viewer, USACE ODESS Support-installed

3.16 USACE SEA TURTLE INSPECTION CHECKLIST FOR HOPPER DREDGES For Civil Works Projects or Department of the Army Permitted Project

1. Read contract plans and specs and/or all applicable permits (Dept. of the Army Permit, State Permits) to determine the contract or permit requirements for the protection of endangered sea turtles (each District specs or permit may be different).
2. Read the Biological Opinion and any Corps of Engineers (COE) Division Protocol if available.
3. Develop a list of inspection requirements:
 - a. Leading edge angle (90 degrees or less).
 - b. Approach angle or leading edge plowing depth (6 inches or more).
 - c. Aft rigid attachment of deflector to the drag head (hinged or trunnion).
 - d. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
 - e. Opening between drag head and deflector (four-inch by four-inch max).
 - f. Is screening of dredged material required?
 - g. Are inflow screens or overflow screens or both required?
 - h. Are inflow basket screen openings four-inch by four-inch max and is 100% of the dredged material being screened.
 - i. Lighting of inflow and overflow screens and proper access for cleaning (must meet EM 385-1-1).
 - j. Structural design of deflector (per approved deflector submittal).
 - k. Dredge operational requirements (starting /stopping dredge pump, draghead plugging, razing draghead, turning the dredge).
 - l. Is dredging data recording (drag elevation, slurry density & velocity) required by specs or permit? If so, is it being collected?
 - m. Is turtle trawling required by specs or permit? If so is it being performed?
 - n. NMFS-Approved Protected Species Observer requirements (12 or 24 hours required)
4. Review turtle deflector submittal (do not allow dredging to start until submittal is approved):
 - o. Structural soundness.
 - p. Leading edge angle (90 degrees or less).

- q. Approach angles for dredging depths.
- r. Four-inch by four-inch opening between deflector and draghead.
- 5. Perform pre-dredging inspection:
 - s. Review and inspect all items in paragraph 3a-n.
- 6. Perform dredging operation inspection:
 - t. Review and inspect all items in paragraph 3a-n.
 - u. Require the contractor to perform paint test to assure deflector is plowing at least six inches into the dredge material (over penetration of the deflector will reduce production and increase fuel consumption of the dredge). Photograph results of the paint test on the deflectors and provide photographs with inspection checklist report.
 - v. Ride the dredge though at least one dredging cycle (dredging, to the dump, and back to the dredge site).
 - w. Watch the drag tender to assure he is operating the dredging equipment in accordance with the plans and specs (starting/stopping dredge pump, lower dragarm angle, swell compensator, slurry specific gravity, plugging of the draghead, ship crabbing).
 - x. Lockout tagout procedure for cleaning the inflow and overflow screens (must meet EM 385-1-1).
 - y. Talk to NMFS-Approved Protected Species Observers to assure they are aware of contract and permit requirements and are performing inspection of screens and deflectors and reporting any maintenance required to the dredge personnel.
 - z. Talk to Dredge Captain about maintaining the screens and deflectors.

COMMENTS: _____

COE Inspector:

Name _____

Office Symbol _____ Date of Inspection _____

-- End of Section --

SEA TURTLE TRAWLING REPORT

Channel: _____ Vessel: _____ Captain: _____
Crew: _____

Date: _____
Time: _____
Shift #: _____
Dredge Location: _____
Total Tow Time: _____ min

Survey: _____
Relocation: _____
Pre Dredge: _____

SUBSTRATE	
Mud:	_____
Sand:	_____
Rocks:	_____
Snag:	_____
Other:	_____

Low Tide Time: _____
High Tide Time: _____
Ebb: _____ Flood: _____
Slack Ebb: _____ Slack Flood: _____
Comments: _____

Water Temp. (B: °C)(M: °C)(S: °C)
Wave Height: _____ ft
Air Temperature: _____ °C
Wind Speed/Direction: _____
Barometric Pressure: _____

BEGIN TOW

END TOW

Time: _____
Depth: _____ ft
Speed Mid-Tow: _____ knots
Latitude: _____
Longitude: _____
Loran: _____
Station/Buoys: _____

Time: _____
Depth: _____ ft
Speed Mid-Tow: _____ knots
Latitude: _____
Longitude: _____
Loran: _____
Station/Buoys: _____

NUMBER OF TURTLES

Port Net: _____
Logger: _____
Kemp: _____
Green: _____
Other: _____

Starboard Net: _____
Logger: _____
kemp: _____
Green: _____
Other: _____

BYCATCH/COMMENTS

**ENDANGERED SPECIES OBSERVER PROGRAM
LOAD DATA FORM**

USACE DISTRICT: _____
 CONTRACT #: _____ Maintenance ___/New Work _____ PROJECT start date _____
 PROJECT NAME: _____ DREDGE NAME: _____
 DREDGE FIRM: _____

LOAD #: _____ LOAD start date: _____ Times (24hrs): Start _____ End _____

Condition of screening : Port _____ Starboard _____ Overflow _____

Number of dragheads in use: _____ Type of dragheads used: _____ Size of dragheads: _____
 Draghead deflector? YES ___ NO ___ Condition of deflector: _____

Type of material dredged: _____

Weather conditions: _____

Tidal stage Slack Rising High Falling Low Unknown

Beaufort Sea States (Winds/Wave Height)

0 = <1 knot/ 0 ft	3 = 7-10 knot/ 2 ft	6 = 22-27 knot/10 ft	9 = 41-47 knot/23 ft	12 = >63 knot/45
1 = 1- 3 knot/ 0.25 ft	4 = 11-16 knot/ 4 ft	7 = 28-33 knot/14 ft	10 = 48-55 knot/29 ft	
2 = 4- 6 knot/ 0.5 ft	5 = 17-21 knot/ 6 ft	8 = 34-40 knot/18 ft	11 = 56-63 knot/37 ft	

Waves: _____ ft Wind (speed & direction): _____

AIR TEMP: _____ °C / °F (°F = 9/5 (°C) + 32; °C = 5/9 (°F - 32))
 WATER TEMP: Surface _____ °C / °F Column (mid-depth) _____ °C / °F Bottom _____ °C / °F

SCREEN TYPE	_____ Inflow screening:	None	25%	50%	75%	100%
	_____ Overflow screening:	None	25%	50%	75%	100%
	_____ Other screening:	None	25%	50%	75%	100%

PORT SCREEN CONTENTS:

STARBOARD SCREEN CONTENTS: _____

Estimate number entrained on this load for the following:
 Sturgeon (any species) _____
 Shark (any species) _____
 Horseshoe crab _____
 Blue crab _____

TURTLE OR TURTLE PARTS PRESENT THIS LOAD: YES _____ NO _____

SPECIES OF TURTLE TAKE: Unknown Loggerhead Green Kemp's ridley Hawksbill Leatherback

Comments: _____

Number observers used/24hrs: _____ % Monitoring/24 hrs: None 25% 50% 75% 100%

Observer's name: _____ Observer firm _____
 Observer signature _____

**ENDANGERED SPECIES OBSERVER PROGRAM
DAILY REPORT**

USACE DISTRICT: _____
PROJECT NAME: _____ DREDGE NAME: _____

Date: _____ Load #: _____ Areas dredge worked: _____

Beaufort Sea State: 0 1 2 3 4 5 6 7 8 9 10 11 12

AIR TEMP: _____ °C / °F (°F = 9/5 (°C) + 32; °C = 5/9 (°F - 32))
WATER TEMP: Surface _____ °C / °F Column (mid-depth) _____ °C / °F Bottom _____ °C / °F

Condition of deflector: _____ Condition of screening: _____

Were there incidents involving endangered or protected species? YES ___ NO ___

Which species? (complete incident form(s)) _____

Comments (type of material, biological specimens, unusual circumstances, etc):

BRIDGE WATCH SUMMARY

<u>Time</u>	<u>Species</u>	<u># Sightings/# Animals</u>	<u>Location/Comments</u>
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____
_____	_____	____/____	_____

Observer name _____

**ENDANGERED SPECIES OBSERVER PROGRAM
WEEKLY SUMMARY**

USACE DISTRICT: _____
PROJECT NAME: _____ DREDGE NAME: _____

Dates: _____ - _____ Load #s: _____

Areas dredge worked: _____

Were there incidents involving endangered or protected species? YES ____ NO ____

Which species? _____

Comments: _____

BRIDGE WATCH SUMMARY

<u>Date/Time</u>	<u>Species</u>	<u># Sightings/# Animals</u>	<u>Location/Comments</u>
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____
_____	_____	_____/____	_____

Observer name _____

ENDANGERED SPECIES OBSERVER PROGRAM
STURGEON INCIDENTAL TAKE DATA FORM

USACE DISTRICT: _____
PROJECT NAME: _____ DREDGE NAME: _____

DATE: _____ Time sturgeon take recovered (24hr): _____ Sturgeon # for project: _____

LOAD #: _____ Times (24hrs): Start _____ End _____ Load start date _____

SPECIES OF STURGEON TAKE: Shortnose _____ Gulf _____ Other _____ Unknown _____

Channel location of take: Latitude _____ Longitude _____

Other location / Channel description (e.g. buoy markers, landmarks): _____

Location take recovered on dredge: _____

Number of dragheads in use at time of incident: _____ Draghead deflector? YES ___ NO ___

Condition of deflector: _____ Condition of screening: _____

Beaufort Sea State: 0 1 2 3 4 5 6 7 8 9 10 11 12

AIR TEMP: _____ °C / °F (°F = 9/5 (°C) + 32; °C = 5/9 (°F - 32))

WATER TEMP: Surface _____ °C / °F Column (mid-depth) _____ °C / °F Bottom _____ °C / °F

Condition of specimen: _____

0 = Alive; 1 = Fresh dead; 2 = Moderately decomposed; 3 = Severely decomposed; 4 = skeleton/old bone; 5 = undetermined

Measurements/description of specimen: _____

Genetic samples taken: YES ___ NO ___ Photos taken: YES ___ NO ___

Sample frozen/preserved: YES ___ NO ___

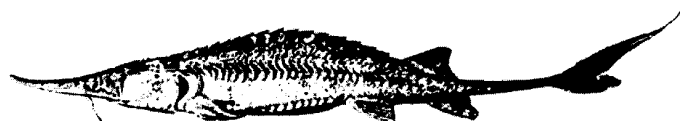
Final disposition of specimen: _____

Comments: _____

Load data form attached: YES ___ NO ___ Dredge load log attached: YES ___ NO ___

Observer's name _____

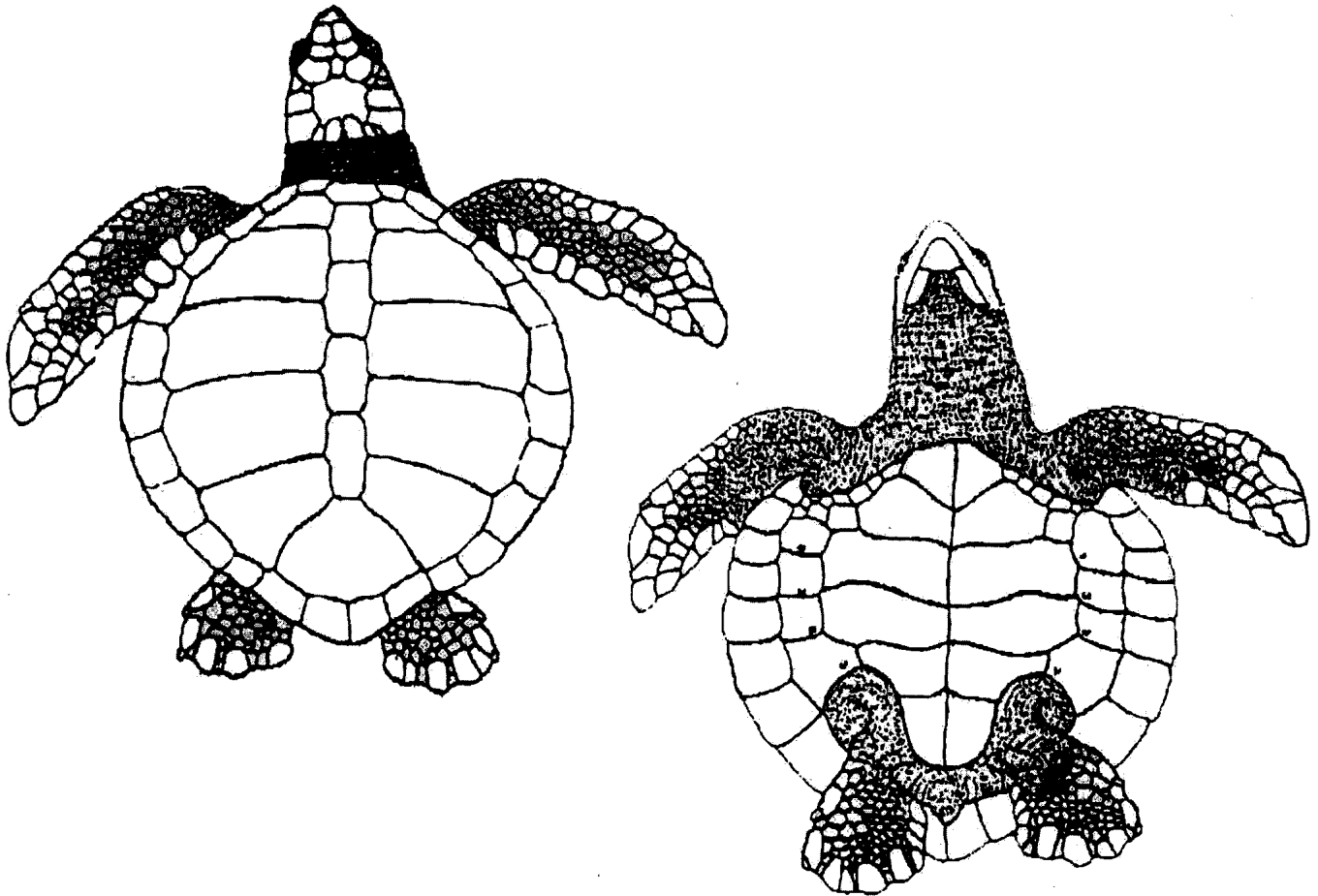
Use diagram below to illustrate specimen/part recovered:



Kemp's Ridley (*Lepidochelys kempii*)

Shade areas of turtle that are missing; sketch cracks and lacerations

Comments:

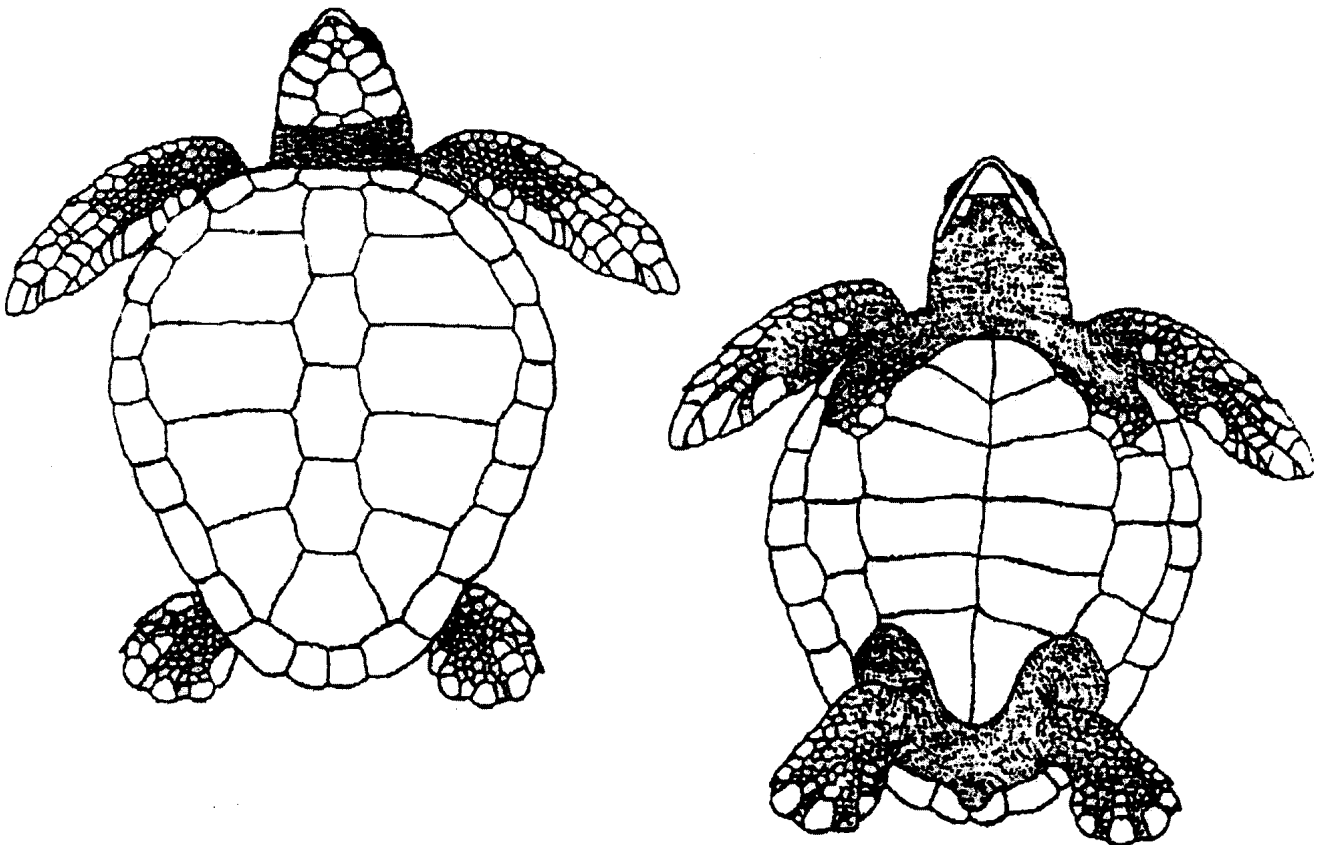


Diagrams by Tom McFarland

Loggerhead (*Caretta caretta*)

Shade areas of turtle that are missing; sketch cracks and lacerations

Comments:

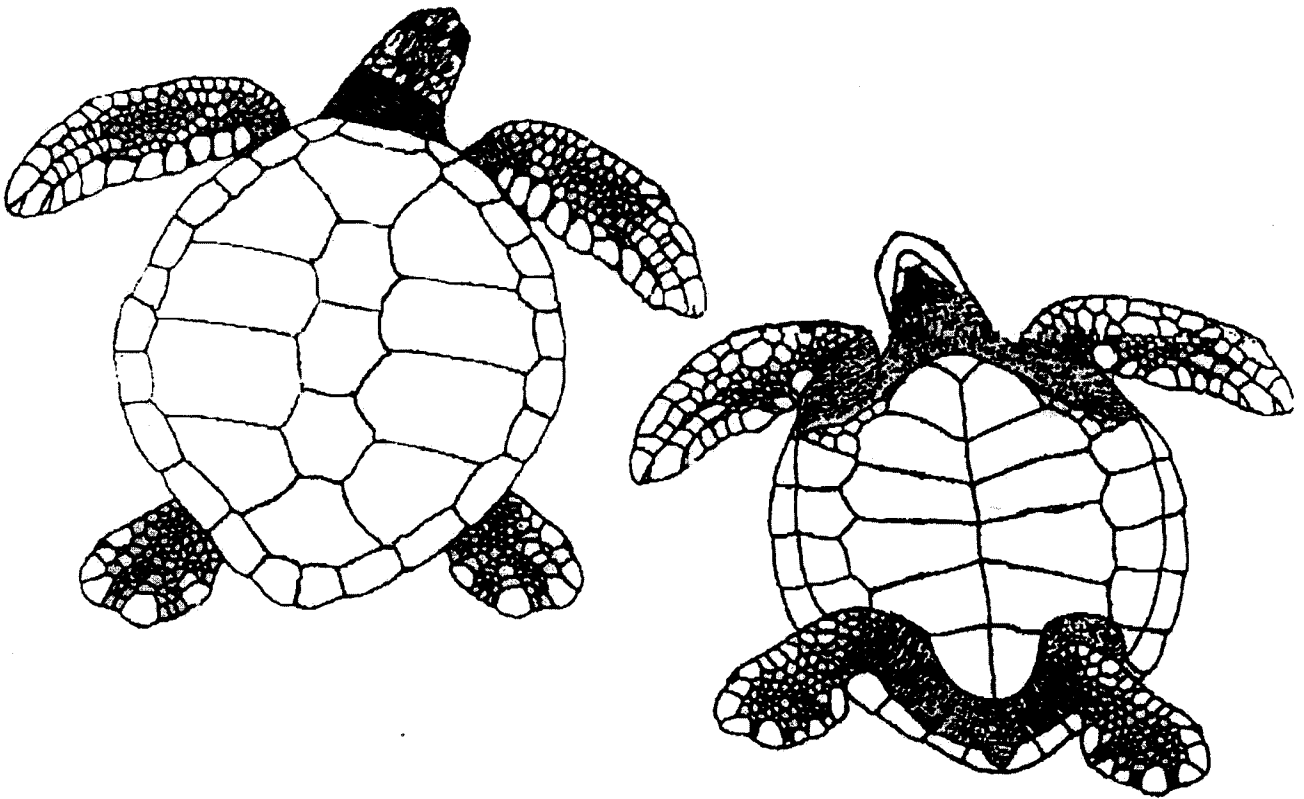


Diagrams by Tom McFarland

Green turtle (*Chelonia mydas*)

Shade areas of turtle that are missing; sketch cracks and lacerations

Comments:



Diagrams by Tom McFarland

SEA TURTLE TAGGING AND RELOCATION REPORT

Channel: _____
Date: _____
Time: _____
Water Temp. (B: °C)(M: °C)(S: °C)

_____ of _____

Ship Name: _____ Net: _____ Port: _____ Starboard: _____

Flipper Tag

Left: _____
Right: _____
Recapture: _____ This Effort: _____
Previous Effort: _____

Sex

Male: _____
Female: _____
Unknown: _____

Weight

_____ Kg
_____ lbs

Carpace S.L. Length

_____ cm
_____ in
CCL: _____ cm

S.L. Width

_____ cm
_____ in
CCW: _____ cm

Tail Length

(from plastron to tip)
_____ cm

Head Width

_____ cm
_____ in

Photos Taken

Yes: _____
No: _____

Blood Taken

Yes: _____ No: _____
Time: _____
No. of Vials: _____

Telemetry Tag

Radio: _____
Sonic: _____
Satellite: _____
_____ Mhz
_____ Khz

GENERAL CONDITIONS OF TURTLE

CPL: _____ cm _____
CPW: _____ cm _____
PIT Tag# _____

Turtle Released

Date: _____
Time: _____

Release Location:

Latitude: _____
Longitude: _____

TURTLE TRAWL NET SPECIFICATIONS

DESIGN: 4 Seam, 4 Legged, 2 Bridal Trawl Net

WEBBING: 4 inch bar, 8 inch stretch

Top – 36 Gauge Twisted Nylon Dipped

Side – 36 Gauge Twisted Nylon Dipped

Bottom – 84 Gauge Braided Nylon Dipped

NET LENGTH: 60 ft from cork line to cod end

BODY TAPER: 2 to 1

WING END HEIGHT: 6 feet

CENTER HEIGHT: Dependent on depth of trawl – 14 to 18 feet

COD END: Length 50 meshes x 4 inches equals 16.7 feet

Webbing 2 inch bar, 4 inch stretch, 84 gauge braid nylon

Dipped, 80 meshes around, 40 rigged meshes with $\frac{1}{4}$ x 2
inch choker rings, 1 each $\frac{1}{2}$ x 4 inch at end

Cod End Cover – none

Chaffing Gear – none

HEAD ROPE: 60 ft $\frac{1}{2}$ inch combination rope (braid nylon with
stainless cable center)

FOOT ROPE: 65 ft $\frac{1}{2}$ inch combination rope

LEG LINE: Top – 6 ft, Bottom – 6 ft

FLOATS: Size – Tuna Floats (football style), Diameter – 7

Inches; Length – 9 inches; number 12 each;

Spacing – center of top net 2 inches apart

MUD ROLLERS: Size – 5 inch Diameter, 5.5 inch length

Number – 22 each; spacing – 3 ft attached with $\frac{3}{8}$ inch

Polypropylene rope (replaced with snap on roller when
broken)

TICKLER CHAINS: NONE (Discontinued – but previously used $\frac{1}{4}$
inch x 74 ft galvanized chain)

WEIGHT: 20 ft of $\frac{1}{4}$ inch galvanized chain on each wing, 40 ft
per net looped and tied

DOOR SIZE: 7 ft x 40 inches (or 8 ft x 40 inches); Shoe – 1 inch
X 6 inch: bridles – $\frac{3}{8}$ inch high test chain

CABLE LENGTH: (Bridle Length, Total) : $\frac{7}{16}$ inch x 240-300 ft
varies with bottom conditions

FLOAT BALL: NONE

LAZY LINES: 1 inch nylon

PICKUP LINES: $\frac{3}{8}$ inch polypropylene

WHIP LINES: 1 inch nylon

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ATTACHMENTS:

Daily Report of Operations - Hopper Dredges

Example Load Displacement Chart

Example Economic Bin Load Chart

Mobile District - Historical Dredge and Haul Rates

Plan View - Rigid Turtle Deflector

Elevation View - Rigid Turtle Deflector

Sample Manufacturer's Performance Curve

Southwest Pass & Mississippi River Hopper Disposal Areas plate

Calcasieu River and Pass Maintenance Dredging plates

-- End of Section Table of Contents --

SECTION 35 20 23.23

HYDRAULIC DREDGING

PART 1 GENERAL

1.1 SCOPE

It is the purpose of these specifications to secure for the Government the hire and operation of one self-propelled, trailing, suction-type hopper dredge conforming to the sizes shown in the table listed in the paragraph entitled "Dredge Plant". The dredge shall include all necessary attendant plant, complete in all respects, including fuel, supplies, safety equipment and crew. All floating plant shall comply with applicable US Coast Guard and US Public Health Service regulations. The Contractor shall furnish all plant, materials, equipment, supplies, labor, transportation and perform all work in strict accordance with these specifications. All work, materials, and services not expressly called for in these specifications, but which may be necessary for complete and proper operations to carry out the contract in good faith shall be performed, furnished, or installed by the Contractor at no increase in cost to the Government. All work under these specifications shall be performed in accordance with the provisions of EM 385-1-1 "Corps of Engineers Safety and Health Requirements Manual", latest edition.

1.2 MEASUREMENT AND PAYMENT

1.2.1 Mobilization and Demobilization

An item to cover the cost of initial mobilization and final demobilization of the Contractor's plant and equipment under this contract is included and will be paid for as stipulated in the Contract Clause entitled "Payment for Mobilization and Demobilization" (DFARS 252.236-7004). The Contractor shall be responsible for staking its own approach for initial and interim mobilization and demobilization, for its dredge and attendant plant, from the plants location where last employed, to the dredging region(s), as described in the paragraphs entitled "Primary Dredging Region" and "Secondary Dredging Regions". The Government will not provide any payments to the Contractor, in addition to the contract job price for "Mobilization and Demobilization of hopper dredge and all attendant plant".

1.2.2 Dredging and Option Dredging Items

1.2.2.1 Unit of Measure

Payment for a self-propelled, trailing, suction-type hopper dredge will be made at the contract unit price per hour for "Dredging" and "Option Dredging" at the pay times stipulated in the following subparagraphs. Price and payment shall constitute full compensation for furnishing all necessary plant, labor, fuel, supplies, safety equipment and procedures, crew, furnishing and maintaining communication equipment, automatic recording tide gage, electronic positioning equipment, crewboat, sea turtle equipment, satisfactory disposal of dredged material and all operational incidentals thereto.

- a. Determination of Elapsed Time. The hours listed in the bid lots

for Dredging and Option Dredging Items are 100% pay time hours. For the purposes of determining elapsed time and the completion time of the contract, 100% pay time, 80% pay time, 60% pay time, 48% pay time, 35% pay time, 21% pay time, and 0% pay time, will be considered as 100%, 80%, 60%, 48%, 35%, 21%, and 0% of the hourly rate, respectively. Refer to the paragraph entitled "Procedures for Dredge Production Computation and Reporting". This contract shall be executed and paid strictly on a contract hourly rental basis as specified herein.

b. Start of Pay Time Hours. Dredging operations shall not start until all dredge pumps and drags are operable unless waived by the Contracting Officer. For this case, payment will be made at the appropriate reduced rate until all dredge pumps and drags are operable. 100% pay time hours for dredging operations shall begin on the date and time when dredged material is placed in the hopper through all drags. Adverse conditions may prevent dredging while the dredge is on assignment location and ready to dredge. For this case, payment will be made at the appropriate reduced rate until dredging operations commence. The applicable contract price per hour referred to below is the rate per hour in the Dredging or Option Dredging Item as appropriate, or an adjusted rate based on the pumping rate test in accordance with the paragraph entitled "Production Rate Test". Hourly quantities shown in the Bidding Schedule have been determined based on typical conditions in the primary dredging region only. No adjustment in the contract unit price will be made for dredging in a secondary dredging region.

c. 100% Pay Time Hours: When all dredge pumps and drags are operable, the following will be paid at 100% of the applicable contract price per hour, calculated to the nearest minute:

- (1) Pumping time, turning time, travel to the disposal site, dumping time, and return travel time, in either dredge and haul or agitation modes; The times listed represent the sequential order of the dredging cycle beginning with the pumping time;
- (2) Clearing fouled drag heads or propellers;
- (3) Cleaning debris from any part of the dredge suction/intake system to include dragheads, pipes, loaders, skimmers, pumps, etc.;
- (4) Travel time, when moving from one assignment to another within the same dredging region.
- (5) Actual time for conducting the production rate test specified in the paragraph entitled "Production Rate Test".
- (6) Down time to clear sea turtle screens required by the provisions of Section 01 57 20.00 10, paragraph entitled "Turtle Monitoring Equipment".
- (7) Actual time for conducting the Quality Assurance tests required by the National Dredge Quality Management System.
- (8) Actual time for conducting monthly Corps safety drills if the dredging cycle is interrupted. Pay time shall not exceed 30 minutes per instance.
- (9) Actual time to perform any Corps directed tasks other than

dredging.

d. 80% Pay Time Hours: When all dredge pumps and drags are operable, the following will be paid at 80% of the applicable contract price per hour, calculated to the nearest minute:

(1) Actual time waiting for vessel traffic to pass, when the dredging cycle is interrupted by traffic in the waterway. If vessel traffic causes a delay in the transit time to or from the disposal area, then the average transit time for all other uninterrupted transits for that assignment and that day will be used as the transit time. The remainder time over the average will be considered the actual traffic time.

(2) Travel time when moving from an assignment in one dredging region to another assignment in a different dredging region.

(3) Up to 72 hours when it becomes necessary to seek a harbor of refuge for hurricanes or tropical storms.

(4) Time for sailing to and from calm waters for performing directed dredge load-displacement chart recalibration and for time during dredge load-displacement chart calibration while at the directed calibration location.

(5) Up to 36 hours for shutdown when instructed by the US Coast Guard, local authorities, or the Contracting Officer due to accidents, spills, etc., in the vicinity of the dredge assignment. After 36 hours, 48% of the applicable contract price per hour will be paid. If during/after initial 36 hour shutdown due to the US Coast Guard the Contractor resumes work and again is instructed to shutdown operations by the US Coast Guard due to the initial incident, then the pay time shall revert back to paying for up to 36 hours of shutdown.

(6) Up to the specified hours in Section 01 57 20.00 10, paragraph entitled "Turtle Deflector Requirements" in order to comply with the installation/removal of sea turtle deflectors as directed by the Contracting Officer.

(7) Time for shut down when directed by the Contracting Officer due to relocation trawling being suspended as specified in Section 01 57 20.00 10, paragraph entitled "Suspension of Dredging and Relocation Trawling".

(8) Time for shut down when directed by the Contracting Officer to evaluate measures to reduce the likelihood of additional sea turtle takes as specified in Section 01 57 20.00 10, paragraph entitled "Sea Turtle Reporting".

(9) Actual time for conducting Hopper Leakage Test if the dredge passes said test.

e. 60% Pay Time Hours: When one pump or drag is disabled, on a dredge equipped with two or more pumps and drags, the following will be paid at 60% of the applicable contract price per hour, calculated to the nearest minute:

(1) Pumping time, turning time, travel to the disposal site,

dumping time, and return travel time, in either dredge-and-haul or agitation modes.

(2) Actual time required to clearing fouled drag heads or propellers.

(3) Cleaning debris from any part of the dredge suction/intake system to include dragheads, pipes, loaders, skimmers, pumps, etc.;

(4) Travel time when moving from one assignment to another within the same dredging region.

(5) Down time to clear sea turtle screens required by the provisions of Section 01 57 20.00 10, paragraph entitled "Turtle Monitoring Equipment".

f. 48% Pay Time Hours:

(1) When one dredge pump or drag is disabled, on a dredge equipped with two or more pumps and drags, the following will be paid at 48% of the applicable contract price per hour, calculated to the nearest minute:

a. Actual time waiting for vessel traffic to pass, when the dredging cycle is interrupted by traffic in the waterway. If vessel traffic causes a delay in the transit time to or from the disposal area, then the average transit time for all other uninterrupted transits for that assignment and that day will be used as the transit time. The remainder time over the average will be considered the actual traffic time.

b. Travel time when moving from an assignment in one dredging region to another assignment in a different dredging region.

c. Up to 72 hours when it becomes necessary to seek a harbor of refuge for hurricanes or tropical storms.

d. Time for sailing to and from calm waters for performing directed dredge load-displacement chart recalibration, and for time during dredge load-displacement chart calibration while at the directed recalibration location.

e. Time for shutdown when instructed by the US Coast Guard, local authorities, or the Contracting Officer due to accidents, spills, etc., in the vicinity of the dredge assignment.

f. Up to the specified hours in Section 01 57 20.00 10, paragraph entitled "Turtle Deflector Requirements" in order to comply with the installation/removal of sea turtle deflectors as directed by the Contracting Officer.

g. Time for shut down when directed by the Contracting Officer due to relocation trawling being suspended as specified in Section 01 57 20.00 10, paragraph entitled "Suspension of Dredging and Relocation Trawling".

h. Time for shut down when directed by the Contracting Officer to evaluate measures to reduce the likelihood of additional sea turtle takes as specified in Section 01 57 20.00 10, paragraph entitled "Sea Turtle Reporting".

(2) When all dredge pumps and drags are operable, the following will be paid at 48% of the applicable contract price per hour, calculated to the nearest minute:

a. After 36 hours for shutdown when instructed by the US Coast Guard, local authorities or the Contracting Officer due to accidents, spills, etc., in the vicinity of the dredge assignment.

g. 35% Pay Time Hours: When all dredge pumps and drags are operable, the following will be paid at 35% of the applicable contract price per hour, calculated to the nearest minute:

(1) When the dredge cannot work due to opposing natural elements (fog, wind, rain, and rough seas). If the Contractor elects to go to a lay up or supply point, the reduced rate will start at the point of where a dredging cycle is interrupted and will resume at the exact same cycle point. If a load has just been dumped and the Contractor elects to go to a lay up or supply point, then the reduced rate will start with the end time of the dump and will continue until dredging resumes on the next load (when returning to the same assignment). If the Contractor elects to remain at the lay up or supply point for additional time after weather conditions are deemed favorable to recommence the dredging cycle, the additional time will be considered 0% Pay Time Hours. If a new assignment within the same dredging region is issued before dredging resumes, then only the time required to travel the additional distance beyond the previous assignment's start location to the new assignment's start location will be paid at the applicable contract price per hour.

h. 21% Pay Time Hours: When one pump or drag is disabled, on a dredge equipped with two or more pumps and drags, the following will be paid at 21% of the applicable contract price per hour, calculated to the nearest minute:

(1) When the dredge cannot work due to opposing natural elements (fog, wind, rain, and rough seas). If the Contractor elects to go to a lay up or supply point, the reduced rate will start at the point of where a dredging cycle is interrupted and will resume at the exact same cycle point. If a load has just been dumped and the Contractor elects to go to a lay up or supply point, then the reduced rate will start with the end time of the dump and will continue until dredging resumes on the next load (when returning to the same assignment). If the Contractor elects to remain at the lay up or supply point for additional time after weather conditions are deemed favorable to recommence the dredging cycle, the additional time will be considered 0% Pay Time Hours. If a new assignment within the same dredging region is issued before dredging resumes, then only the time required to travel the additional distance beyond the previous assignment's start location to the new assignment's start location will be paid at the applicable contract price per hour.

i. 0% Pay Time Hours: No payment for hopper dredge time will be made under this contract for:

(1) Lost time incurred at the direction of the Contractor.

(2) Repair or replacement of worn or unserviceable equipment, including travel time to and from the lay up or supply point if deemed necessary by the Contractor. The reduced rate will start at the point of where a dredging cycle is interrupted and will resume at the exact same cycle point. If a load has just been dumped and the Contractor elects to go to a lay up or supply point, then the reduced rate will start with the end time of the dump and will continue until dredging resumes on the next load (when returning to the same assignment). If a new assignment within the same dredging region is issued before dredging resumes, then only the time required to travel the additional distance beyond the previous assignment's start location to the new assignment's start location will be paid at the applicable contract price per hour.

(3) Taking on fuel, water, and other supplies, including travel time to and from the lay up or supply point. The reduced rate will start at the point of where a dredging cycle is interrupted and will resume at the exact same cycle point. If a load has just been dumped and the Contractor elects to go to a lay up or supply point, then the reduced rate will start with the end time of the dump and will continue until dredging resumes on the next load (when returning to the same assignment). If a new assignment within the same dredging region is issued before dredging resumes, then only the time required to travel the additional distance beyond the previous assignment's start location to the new assignment's start location will be paid at the applicable contract price per hour.

(4) Removing misplaced material.

(5) Shutdowns ordered by the Contracting Officer's Representative or his/her authorized representative, for nonconformance with the safety requirements of these specifications.

(6) Work for other agencies or on other contracts for the Corps of Engineers.

(7) Time lost due to an accident resulting in injury to Contractor or Government personnel.

(8) Time lost due to mechanical modification of the dredge when converting between modes.

(9) Any time not covered under "100% Pay Time Hours", "80% Pay Time Hours", "60% Pay Time Hours", "48% Pay Time Hours", "35% Pay Time Hours", and "21% Pay Time Hours".

(10) All hours over 72 hours when it becomes necessary to seek a harbor of refuge from hurricanes or tropical storms.

(11) Time lost while the load-displacement chart is not operable during effective dredging time.

(12) Time lost that delays dumping a bin load of dredged materials to obtain bin slurry soundings that could have been taken while the dredge was sailing to the dredged material placement area.

(13) Time lost that delays commencement of dredging on a new cycle

to obtain bin residual water soundings that could have been taken while the dredge was sailing from the dredged material placement area.

(14) Time lost while in non-compliance in providing sea turtle observers or sea turtle monitoring/protection equipment.

(15) All hours over the specified hours to comply with sea turtle requirements specified in Section 01 57 20.00 10, paragraph entitled "Turtle Deflector Requirements".

(16) When any one propulsion engine is inoperable.

(17) All hours over the specified hours to comply with sea turtle and sturgeon trawling and relocation requirements specified in Section 01 57 20.00 10, paragraph entitled "Government Option".

(18) Time required to transfer Contractor personnel on and off the dredge if the dredging cycle is interrupted.

(19) Actual time for conducting Hopper Leakage Test if the dredge fails said test.

(20) Down time due to damage from opposing natural elements (lightning, high winds, rough seas, etc.).

j. Classification of Pay Time. If two or more pay time classifications are simultaneously applicable, then the dredge will remain under the lowest applicable classification until the cause of that classification is removed.

k. Accounting for Dredge Time. The Contractor should note that the dredge must account for the full 24 hours of each day, including the first and last day of work. All time will either be 100% time, 80% time, 60% time, 48% time, 35% time, 21% time, or 0% time. When considering daylight savings time changes, only elapsed time will be accounted for.

1.3 DEFINITIONS

1.3.1 Acronyms

The following are acronyms that may be used in this Section of the specifications or in attachments to this Section:

ACRONYM	DEFINITION	SUB-PARAGRAPH REFERENCE
ABD	Average Bin Density	1.7.3.3.j
ADQ	Agitation Dredging Quantity	1.7.3.4.e
APR	Agitation Production Rate	1.7.3.4.b
BLD	Bin Load Duration	1.7.1.e
BLP	Bin Loading Point	1.7.1.c
BLQ	Bin Load Quantity	1.7.3.3.l
BSR	Bin Solids Ratio	1.7.3.3.k
BWV	Bin Water Volume	1.7.3.3.c
BWW	Bin Water Weight	1.7.3.3.d
CLD	Corrected Light Displacement	1.7.3.3.e
DAD	Duration of Agitation Dredging	1.7.3.4.d
DMS	Dredged Material Slurry	1.7.3.3.h
DSV	Dredged Slurry Volume	1.7.3.3.i
GLD	Gross Light Displacement	1.7.3.3.a
LDC	Load Displacement Chart	1.7.1.a
LTD	Initial Steep Loading Slope Time	1.7.1.c(2)
MLD	Material Loaded Displacement	1.7.3.3.f
NBL	Net Bin Load	1.7.3.3.g
OFP	Offset Point	1.7.1.c(3)
RWD	Raw Water Density	1.7.3.3.d
SBD	Sediment Bulk Density	1.7.3.3.k
SBL	Slope of Bin Loading	1.7.1.c

1.4 REPORTS

The Contractor shall report the daily quantity of materials dredged per cycle, as specified in the paragraph entitled "Daily Report of Operations". For a single dredging cycle that overlaps two consecutive 24-hr reporting periods, the volume of the load shall be recorded on the date and time the dredge returns to the next cut, which shall be considered the completion of that cycle. If a load has been deposited and an extensive delay will occur or a new assignment or dredging location has been issued, then that load will be considered complete once the hopper or hopper doors have been closed. A copy of all production calculations as specified in the following shall be submitted for each dredge cycle in the Daily Report of Operations. The ullage table, as specified in paragraph 2.1.4.k, shall be provided to the Contracting Officer with the first submittal of production calculations that are included in with the first Daily Report of Operations.

1.4.1 Procedures for Dredge Production Computation and Reporting

The cost for all specified labor, materials, equipment and aspects of work for dredge production reporting as specified herein shall be included in the contract unit price for "Dredging" and "Option Dredging".

1.4.2 Daily Report of Operations

a. The Contractor shall prepare and submit a Daily Report of Operations - Hopper Dredges (ENG Form 27A) and Daily Hopper Load Disposal Report, for each dredge working. This report shall be submitted electronically on a daily basis and not in groups, e.g. several daily reports packaged together at one time. The original and one copy of these records in report form shall be submitted to the Government Inspector daily within 12 hours after the date covered by the report. Each daily report shall only include the information beginning at 0000 hours and ending at 2400 hours of that day. All calendar days shall be accounted for throughout the life of the contract.

b. The Contractor shall prepare and submit a Daily Hopper Load Disposal Data for each dredge working. This report shall be submitted electronically on a daily basis and not in groups, e.g. several daily reports packaged together at one time. The report shall be submitted daily via email to the following point of contact:

Mr. Edward Creef
Email: Edward.D.Creef@usace.army.mil
Phone: 504-862-2521

1.4.3 Monthly Report of Operations

In addition to the daily report, the Contractor shall prepare and submit electronically a monthly report, also on an ENG Form 27A, which consolidates all of the daily reports for the previous calendar month or portion thereof. The monthly report shall be due no later than the 7th calendar day of the month.

1.4.4 Final Report

Upon completion of the work, the Contractor shall electronically submit information for a final report which consolidates all of the monthly

reports, within seven calendar days of contract completion. The Contractor shall also submit, at the conclusion of the contract, all mate logs or dredge performance logs, delays sheets, 27-A's, CQC reports, load chart graphs, any calibration back-up documents, safety drills, monthly dump plots and as-built drawings with final report as one submittal package. The Contracting Officer may retain a maximum of ten percent of the amount of the final payment, as described in contract clause entitled "Payments under Fixed-Price Construction Contracts" (FAR 52.232-5(e)), pending review and acceptance of all final report submittals by the New Orleans District.

1.4.5 Distribution of Reports

The Contractor shall distribute one copy of each report to each of the following:

- a. US Army Corps of Engineers
New Orleans Area Office
ATTN: Mr. Kenneth Crumholt, CEMVN-CD
7400 Leake Ave, Room 186
New Orleans, LA 70118
- b. Government Inspector

Further instructions for the preparation of the reports will be furnished at the pre-construction conference.

1.4.6 NMFS-Approved Protected Species Observer Reports

In the event of a sea turtle or sturgeon take, a report must be submitted via email to the proper District point of contact listed in Section 01 57 20.00 10, paragraph entitled "Sea Turtle Sightings", within 12 hours after a take. Also, all consolidated and completed data reports shall be forwarded directly to the District point of contact. Refer to Section 01 57 20.00 10, paragraph entitled "Sea Turtle Reporting", for additional information.

1.5 DREDGE AND ATTENDANT PLANT DATA SHEET

The Contractor shall complete the plant data sheet located in the paragraph entitled "Hopper Dredge and Attendant Plant Data Sheet" for the dredge and attendant plant intended to be used to perform the work under this contract. The completed data sheet shall be submitted to the USACE office and address listed in the paragraph entitled "Distribution of Reports" within five calendar days after Contractor receipt of Government Notice to Proceed. The plant data sheet submittal shall constitute a certification that the described plant is available to and under control of, the Contractor and shall be for Government use only. If the Contractor is a joint venture, all parties of the joint venture shall sign the data sheet, and the party owning the dredge must be identified in the data sheet.

1.6 DREDGE CREW

Crew members aboard the dredging plant whose duties involve the movement or safe operation of the plant shall each hold a valid Merchant Mariner Certificates (MMC) issued by the US Coast Guard, with the correct endorsements (examples: tankerman, radar observer, food handler) for the duties performed. Each shall comply with appropriate minimum Standards of Training, Certification and Watch-standing (STCW) requirements and shall hold a valid Transportation Worker's Identification Card (TWIC). Officers

shall also hold the appropriate licenses issued by the US Coast Guard for the positions they hold, vessel tonnage (for deck officers) or horsepower and type of propulsion (for engineers) and the duties they perform.

All pieces of dredging plant which have been issued a Minimum Safe Manning Certificate (MSMC) by a classification society such as American Bureau of Shipping, Llyod's Register of Ships or Bureau Veritas, shall at all times maintain on-board crew levels in accordance with the numbers and qualifications listed in the MSMC for the activities being performed.

The Contractor shall be responsible for all accidents to crew and plant and for compliance with all laws pertaining to labor on dredges and attendant plant. Each required crewman, when absent, shall be relieved by a qualified replacement. The Contractor shall remove from duty and from the work site any crewman who, in the opinion of the Contracting Officer, is objectionable or incompetent. This requirement shall not be made the basis of any claim for compensation or damages against the United States or any of its officers or agents.

No additional payment will be made for crew in excess of required minimums.

a. Contractor Responsibility. The Contractor shall furnish, subsist if necessary, and pay all crew required for the satisfactory and efficient operation of the dredge and attendant plant. Minimum crew will be in accordance with US Coast Guard requirements. The Contractor shall be responsible for all accidents to crew and plant and for compliance with all laws pertaining to labor on dredges and attendant plant. Each crewman, when absent, shall be relieved by a qualified replacement. The Contractor shall remove from duty any crewman who, in the opinion of the Contracting Officer, is objectionable or incompetent. This requirement shall not be made the basis of any claim for compensation or damages against the United States or any of its officers or agents.

b. Tank Barges. Tank barges need not be manned unless in the opinion of the Officer in Charge, Marine Inspection Office, US Coast Guard, such manning is necessary for the protection of life and property and for the safe operation of the vessels; provided, however, that towing vessels, while towing barges which need not be manned, shall carry in the regular complement of the towing vessel and shall have on board at all times while towing, at least one licensed officer or certified tankerman (CG 123, para. 35.35-1, 1 Aug 77, or 46 CFR Subchapter D).

c. Fuel Transfer Operations. A sufficient number of crew shall be on duty to perform transfer operations. In the case of unmanned barges, the owners or operators of such barges shall insure that a person holding a valid license as master, mate, pilot, engineer, or a certified tankerman is on duty to perform the transfer operation, which licensed person or certified tankerman shall be considered as the person in charge of the unmanned tank barge (CG 123, para. 35.35-1, 1 Aug 77, or 46 CFR Subchapter D). MVN 385-10-R (latest edition), Fuel Oil Transfer form shall be submitted to the Contracting Officer's Representative for each fuel transfer operation.

1.7 DREDGE PRODUCTION COMPUTATION

1.7.1 Basis of Quantity Computation

Refer to the paragraph entitled "Acronyms" as needed for a complete list of acronym definitions and paragraph references for the following procedure. Refer to the paragraph entitled "Example of Standardized Dredge Production Calculations" for an example calculation based on the following procedure.

- a. Hopper Dredge loading shall be defined by trends displayed by the load-displacement chart (LDC). An Example Load Displacement Chart is attached. The LDC consists of time (min) on the long axis and load (LT) on the transverse axis. If the transverse axis shows two different scales for load, the appropriate scale shall be used to read loads on the loading curve. As the bin is loaded, there is an initial steep loading rate. After the bin is initially full, there is some incremental additional loading due to bin materials consolidation and settlement in the bin. This is exhibited by a shallow loading rate which leads into a steady state condition of loading with time. This corresponds to a final compaction of the bin materials due to overburden pressures of the materials.
- b. The dredge bin load shall be considered the point during the loading cycle that the hopper bin contains such a quantity of solids that causes overflow and exit of materials from the dredge at the same rate as the inflow materials. This point in time shall be evidenced on the LDC by that point when a reasonably constant recorded load with time starts to occur or the value shown by the LDC loading curve prior to this point if dredging must cease for the cycle due to reaching the load corresponding to the maximum allowable US Coast Guard vessel draft limit for the dredge 46 CFR Subchapter E (typical of loading heavy materials in dredge-and-haul mode).
- c. For very gradual loading of light materials typical of agitation dredging, the bin load shall be defined by the point specified in the following that lies on the loading curve past the initial steep loading slope. In following the procedures described below, refer to the example LDC located at the end of this section. This point shall be considered to be the bin loading point (BLP). The BLP shall be defined by the slope of bin loading (SBL), which shall be the tangent line to the loading curve for an increasing LDC loading trend that is no greater than 2000 long tons/hour (LT/hr). This slope shall be hand drawn in permanent ink on the LDC using a long straight edge. To assist in locating this slope, it is advisable to first draw in a 2000 (LT/hr) slope on the chart in a clear space. The loading curve may show several small incremental increases in load past the initial steep loading slope before steady state agitation production is evident, instead of an idealistic smooth curve. Interpretation may be required to draw the actual slope when the loading curve is not smooth. In this case, two points that approximate the slope of the tangent line to the loading curve may be used. These two points must lie past the initial steep loading slope. The early point chosen shall be based on a 2% time offset of the duration resulting from the straight-line portion of the initial steep loading slope. The following steps shall be followed to find this point:

- (1) Score a straight line through both ends of the initial steep loading slope.

(2) Determine the initial steep loading slope time difference (LTD) between these two points.

(3) Compute the offset point (OFP) as follows:

$$\text{OFP}(\text{min}) = (0.02) \times (\text{LTD} (\text{min}))$$

(4) Score a straight line at a time distance of OFP parallel and later than the initial steep loading slope, such that the line scored crosses the declining loading curve in time. The point where the parallel line crosses the declining loading curve in time shall be considered the early reading.

(5) The late reading shall be found by pivoting with a straight edge about the early reading point, such that the late point is found as the tangent on the highest protruding curve in the series of several small incremental increases encountered in the loading curve. Upon establishing these two points, the slope defined by these two points shall be considered the SBL.

(6) The midpoint between the two points chosen for the SBL shall be considered to be the BLP, i.e., the effective end of bin loading for the purposes of making computations in the latter. This midpoint value shall be found as a value located on the original loading curve. Two points on the chart consisting of: (load reading, time reading) shall be selected where the SBL passes through two readable points on the chart grid. The slope shall be computed by the following formula:

$$\text{SBL}(\text{LT}/\text{hr}) = \frac{(60(\text{min}/\text{hr})) \times (\text{late load reading}(\text{LT}) - \text{early load reading}(\text{LT}))}{(\text{late time reading}(\text{min}) - \text{early time reading}(\text{min}))}$$

d. These criteria for bin loads shall apply no matter the operational status of the dredge pumps during effective dredging time. Refer to the paragraph entitled "Dredge Plant", for definition of dredge pump operational status.

e. The bin load duration (BLD) shall be considered the time period starting from commencement of dredging with the bin empty and clear of dredged materials from the previous load, to the time when the bin load is attained at BLP.

1.7.2 Basis of Reported Dredge Production Quantities

1.7.2.1 Dredge-and-Haul Mode

In this mode, only those materials retained in the hopper bin at the time the dredge reaches bin load, calculated as specified in the paragraph entitled "Bin Load Production Computation" shall be reported for dredge-and-haul production. No materials that overflow and exit the bin during dredging and loading in order to attain the bin load shall be considered in the quantity computations.

1.7.2.2 Agitation Mode

The quantity of materials for the cycles completed in this mode shall be reported as those materials achieved in bin loading, calculated in accordance with the requirements contained herein, plus the quantity of

materials calculated as specified in the paragraph entitled "Agitation Production Computation".

1.7.3 Dredge Production Instrument Calibration

1.7.3.1 General

Refer to the paragraph entitled "Dredge Plant". The Contractor shall calibrate the dredge's LDC and the drag heads upon arrival to the first dredging assignment at the direction and in the presence of the Contracting Officer's Representative. No pay time is due for conducting the initial calibration. Recalibration may be directed at any other time during contract execution as deemed necessary. No re-calibration or adjustments to the calibration controls shall be performed in the absence of the Contracting Officer.

1.7.3.2 Calibration

Calibration of the LDC recorder shall be performed with the dredge lightship in calm waters where ship draft readings are possible. Calibration shall be performed in accordance with the manufacturer's instructions. For calibration, the physical data in the table located in the paragraph entitled "Production Data Table" shall respectively apply for the particular location of the dredge during calibration. Physical documentation of the calibration procedures and corresponding printed verification data shall be provided with the Daily Report of Operations for every calibration event.

1.7.3.3 Bin Load Production Computation

The following standardized procedure shall be followed for bin load production reporting as specified herein.

- a. The gross light displacement (GLD) of the LDC consists of: the ship's weight; on-board transient loads such as fuel, oil, fresh water, supplies, etc.; and residual bin water. The GLD reading in long tons (LT) of the LDC shall be obtained at the beginning of the dredging cycle prior to bin loading of dredged materials. This reading shall be noted on the chart in permanent ink. For this reading, only residual bin water shall be contained in the bin; any residual dredged materials shall be washed out of the bin prior to this point if such materials remain. Also to be noted in permanent ink on the LDC in the vicinity of these readings on the chart shall be the time, date, and assignment location corresponding to the start of the dredging cycle.
- b. At the beginning of the dredging cycle, before loading of the hopper bin commences, soundings shall be obtained fore and aft, port and starboard in the hopper bin corners from the top of the coaming to the top surface of the residual bin water, all in the presence of the Government Inspector. These four soundings shall be taken as the dredge is sailing from the placement area after dumping a load. These measurements shall be read to the nearest foot-and-tenths using a clean and clearly readable steel weighted tape of equal precision as specified herein. All soundings shall be visually verified to be at the top of the water surface, with the tape suspended plumb and not resting on any structural features in the bin.
- c. The average of the four residual bin water soundings shall be used to obtain the corresponding residual bin water volume (BWV) in cubic

yards (cy) from the official ullage table of the dredge.

d. Empirical raw water density (RWD) averages for each dredging region are shown in the paragraph entitled "Production Data Table", in grams/liter (g/L). The applicable RWD shall be used to compute the weight of the residual bin water for the particular location of the dredge. The residual bin water weight (BWW) shall be calculated as follows:

$$BWW(LT) = (BWV(cy)) \times (RWD(g/L)) \times (0.0007525(LT/cy)/(g/L))$$

e. The corrected light displacement (CLD) of the vessel shall be computed as follows:

$$CLD(LT) = (GLD(LT)) - (BWW(LT))$$

f. After loading of the hopper bin has ceased and immediately prior to discharging the bin materials, the LDC shall again be read in LT to obtain the material loaded displacement (MLD).

g. The net bin load (NBL) shall then be calculated as:

$$NBL(LT) = (MLD(LT)) - (CLD(LT))$$

h. After loading of the hopper bin has ceased, and immediately prior to discharging the bin materials, bin soundings shall be obtained fore and aft, port and starboard in the hopper bin corners from the top of the coaming to the top surface of the dredged materials slurry (DMS) contained in the bin, all in the presence of the Government Inspector. These four soundings shall be taken as the dredge is sailing to the placement area. These measurements shall be read to the nearest foot-and-tenths using a clean and clearly readable steel weighted tape of equal precision. All soundings shall be visually verified to be at the top of the DMS surface no matter the visually apparent types of materials contained in the bin, with the tape suspended plumb and not resting on any structural features in the bin.

i. The average of the four DMS soundings shall be used to obtain the corresponding dredged slurry volume (DSV) in cubic yards (cy) from the official ullage table of the dredge.

j. The average bin density (ABD) shall be found using:

$$ABD(g/L) = (NBL(LT)) / \{(DSV(cy)) \times (0.0007525(LT/cy)/(g/L))\}$$

k. Historical averages for each dredging region of empirical sediment bulk density (SBD) are shown in the paragraph entitled "Production Data Table", in grams/liter (g/L). The SBD corresponding to the region that the dredge is located shall be used in the following bin solids ratio (BSR) computation:

$$BSR = \{(ABD(g/L)) - (RWD(g/L))\} / \{(SBD(g/L)) - (RWD(g/L))\}$$

l. The bin load quantity (BLQ) for the cycle shall be found and reported on the Daily Report of Operations as shown below:

$$BLQ(cy) = BSR \times (DSV(cy))$$

1.7.3.4 Agitation Production Computation

After the dredge has achieved the bin load as defined herein while working on a dredging assignment where agitation dredging is directed, continued dredging in the same cycle shall be considered to be agitation production. The following standardized procedure shall be followed for agitation production reporting as specified herein.

a. The bin load duration (BLD) for the cycle shall be obtained in hours. The BLD and criteria defining the agitation dredging bin load is described in the paragraph entitled "Basis of Quantity Computation".

b. Refer to the paragraph entitled "Dredge Plant", for definition of dredge pump operational status. For loading periods where both dredge pumps are performing at standard dredge pump operation as specified herein, the bin loading duration shall be denoted as BLD2. For continuous two-pump loading at standard dredge pump operation, the agitation production rate (APR) shall be computed by the following formula:

$$\text{APR}(\text{cy/hr}) = (\text{BLQ}(\text{cy})) / (\text{BLD}(\text{hr}))$$

c. For dredges having two dredge pumps, for any period during bin loading where only one dredge pump is at standard dredge pump operation, the respective bin loading duration shall be denoted as BLD1. For bin loading where there are periods of both one- and two-pump loading at standard dredge pump operation respectively, the agitation production rate (APR) shall be computed by the following formula:

$$\text{APR}(\text{cy/hr}) = (\text{BLQ}(\text{cy})) / \{ (\frac{1}{2} \times \text{BLD1}(\text{hr})) + (\text{BLD2}(\text{hr})) \}$$

In any case, either one or the other equation for APR shall apply, not both.

d. The duration of agitation dredging (DAD) in hrs shall be obtained as the dredge effective time from the point that bin load as defined herein is achieved, to the point in time that agitation dredging ceases for the cycle. DAD2 shall denote durations where two dredge pumps are working at standard dredge pump operation and DAD1 shall denote durations where only one dredge pump is working at standard dredge pump operation.

e. Provided that the standard dredge pump operation is achieved for both dredge pumps for the duration of the agitation mode of the dredging cycle, the agitation dredging quantity (ADQ) for the cycle shall then be computed as:

$$\text{ADQ}(\text{cy}) = (\text{APR}(\text{cy/hr})) \times ((\text{DAD2})(\text{hr}))$$

f. For dredges having two dredge pumps, for any period during agitation dredging where only one dredge pump is working at standard dredge pump operation, the respective ADQ for such time periods shall be calculated as:

$$\text{ADQ}(\text{cy}) = (\frac{1}{2} \times \text{APR}(\text{cy/hr})) \times ((\text{DAD1})(\text{hr}))$$

In this case, the DAD1 totals from periods where only one dredge pump is working at standard dredge pump operation shall be subtracted from

the total DAD to find the DAD2 for two-pump agitation dredging. The sum of the ADQs for one- and two-pump agitation dredging shall be the aggregate ADQ reported for the dredging cycle.

1.8 EXAMPLE OF STANDARDIZED DREDGE PRODUCTION CALCULATIONS

Given:

- Hopper dredging region is Mississippi River SW Pass Jetty Channel
- Both dredge pumps were operable during bin loading and for 4 hrs of agitation dredging. For an additional two hrs of agitation dredging, only one dredge pump was operable.
- Average bin residual water sounding = 38'-4"
- Average dredged material slurry sounding = 4'-7"

Calculations:

1. 1.8.1.c.

From LDC: Point a = 53.5(min)
Point b = 68.0(min)

Time difference for OFP = 68.0 - 53.5 = 14.5(min)

OFP(min) = (0.02)(14.5(min)) = 0.29(min)

Plot point at time OFP past Point b on LDC.

From LDC: Point c = 70.0(min), 18,200(LT)
Point d = 120.0(min), 19,050(LT)

$$\text{SBL(LT/hr)} = \frac{(60(\text{min/hr})) \times (\text{late load reading(LT)} - \text{early load reading(LT)})}{(\text{late time reading(min)} - \text{early time reading(min)})}$$

$$\text{SBL(LT/hr)} = \frac{(60(\text{min/hr})) \times (19,050(\text{LT}) - 18,200(\text{LT}))}{(120(\text{min}) - 70(\text{min}))}$$

= 1020(LT/hr) < 2000(LT/hr) => ok.

BLP(min) = $\frac{1}{2}(120+70)$ = 95 min on original LDC loading curve.

2. 1.8.3.3.a.

GLD(LT) = 11,300(LT)

3. 1.8.3.3.c.

Use the average bin residual water sounding to obtain the bin water volume (BWV) from the ullage table.

Average bin residual water sounding = 38' 4" => BWV(cy) = 656(cy).

4. 1.8.3.3.d.

Obtain raw water density (RWD) from the Production Data Table located at

end of clause.

Using Miss. River SW Pass Jetty Channel, $RWD(g/L) = 1013(g/L)$

Residual Bin Water Weight =

$$BWW(LT) = (BWW(cy)) \times (RWD(g/L)) \times (0.0007525(LT/cy) / (g/L))$$

$$BWW(LT) = (656(cy)) \times (1013(g/L)) \times (0.0007525(LT/cy) / (g/L)) = 500(LT)$$

5. 1.8.3.3.e.

Corrected Light Displacement = $CLD(LT) = (GLD(LT)) - (BWW(LT))$

$$CLD(LT) = 11,300(LT) - 500(LT) = 10,800(LT)$$

6. 1.8.3.3.f.

Obtain material loaded displacement (MLD) from the LDC.

$$MLD(LT) = 19,100(LT)$$

7. 1.8.3.3.g.

Net Bin Load = $NBL(LT) = (MLD(LT)) - (CLD(LT))$

$$NBL(LT) = 19,100(LT) - 10,800(LT) = 8300(LT)$$

8. 1.8.3.3.h. and 1.8.3.3.i.

Use the average dredged material slurry sounding (DMS) to obtain the dredged slurry volume (DSV) from the ullage table.

$$MS = 4' 7" \Rightarrow DSV(cy) = 8402(cy)$$

9. 1.8.3.3.j.

Average Bin Density = $ABD(g/L) = (NBL(LT)) / \{ (DSV(cy)) \times (0.0007525(LT/cy) / (g/L)) \}$

$$ABD(g/L) = (8300(LT)) / \{ (8402(cy)) \times (0.0007525(LT/cy) / (g/L)) \} = 1313(g/L)$$

10. 1.8.3.3.k.

Obtain sediment bulk density (SBD) from the Production Data Table.

Using Miss. River SWP, $SBD = 1598(g/L)$

Bin Solids Ratio = BSR

$$= \{ (ABD(g/L)) - (RWD(g/L)) \} / \{ (SBD(g/L)) - (RWD(g/L)) \}$$

$$BSR = (1313(g/L) - 1013(g/L)) / (1598(g/L) - 1013(g/L)) = 0.5128$$

11. 1.8.3.3.l.

Bin Load Quantity = $BLQ(cy) = BSR \times (DSV(cy))$

$$BLQ(cy) = 0.5128 \times 8402(cy) = 4309(cy)$$

12. 1.8.3.4.b.

Obtain bin load duration (BLD) from the LDC. For loading periods where both dredge pumps are performing at standard operating RPMs, the bin loading duration shall be denoted as BLD2.

$$BLD2(hr) = (41.5(min)) (1 hr/60 min) = 0.692(hr)$$

Agitation Production Rate for two-pumps operable = $APR(\text{cy/hr}) = \frac{BLQ(\text{cy})}{BLD(\text{hr})}$
 $APR(\text{cy/hr}) = 4309(\text{cy}) / 0.692(\text{hr}) = 6227(\text{cy/hr})$

NOTE: The APR for one-pump agitation is non-applicable in this cycle.

13. 1.8.3.4.d.

Duration of Agitation Dredging where only one dredge pump is operational =
 $DAD1(\text{hr}) = 2 \text{ hrs}$

Duration of Agitation Dredging where two dredge pumps are operational =
 $DAD2(\text{hr}) = 4 \text{ hrs}$

14. 1.8.3.4.e.

Agitation Dredging Quantity = $ADQ [\text{cy}] = \{ (APR(\text{cy/hr}) \times DAD2(\text{hr})) \} + \{ (\frac{1}{2} \times APR(\text{cy/hr})) \times DAD1(\text{hr}) \}$

$ADQ(\text{cy}) = (6227(\text{cy/hr}) \times 4(\text{hr})) + (\frac{1}{2} \times 6227(\text{cy/hr}) \times 2(\text{hr}))$
 $= 24,908 + 6227 = 31,135(\text{cy})$

15. 1.8.2

Total cycle dredging quantity
 $= \text{bin load quantity} + \text{agitation mode quantity}$
 $= 4309 + 31,135 = 35,444(\text{cy/cycle})$

$BLQ + ADQ (2\text{-pump}) + ADQ (1\text{-pump}) = 0.692 + 4 + 2 = 6.69(\text{hr/cycle})$

Commentary.

1. Assume 0.5(hr) to sail to/from dump site and dump load.

2. Hourly production rate
 $= 35,444(\text{cy}) / (6.69 + 0.5(\text{hr})) = 4930(\text{cy/hr})$

3. If the hopper dredge has 24 hrs effective dredging time per day, the estimated daily agitation mode production rate is:
 $(4930(\text{cy/hr})) (24(\text{hr})) = 118,320(\text{cy/day})$

(This figure automatically includes the bin load quantity dredged and dumped each cycle as a part of the dredge's work accomplished while in agitation mode.)

1.9 EXAMPLE ECONOMIC BIN LOAD CALCULATIONS

This example will compare the actual time used to fully load the hopper for one load obtained during a specified assignment against the same load using the economic bin load (EBL) pump time. Attached is an Example Economic Bin Load Chart.

Procedure:

- Hopper dredging region is Mississippi River SW Pass Jetty Channel
- Both dredge pumps were operable during bin loading
- The dredging assignment is from 10.6 BHP to 11.9 BHP

- The initial analyzed load cycle time is 2 hours 49 minutes
- The initial pump time is 2 hours 4 minutes

The total cycle time for the load analyzed is 2 hours and 49 minutes

The initial pump time for the load analyzed is 2 hours and 4 minutes

Calculations for 70 min Pump time:

1. Obtain the Raw Water Density (RWD) from the Production Data Table.

Using Mississippi River SW Pass Jetty Channel, $RWD(g/L) = 1,013$

2. Obtain the Sediment Bulk Density (SBD) from the Production Data Table.

Using Mississippi River SW Pass Jetty Channel, $SBD(g/L) = 1,598$

3. Obtain the Gross Light Displacement (GLD) from the load displacement chart.

$$GLD(LT) = 5,740$$

4. Obtain the Material Loaded Displacement (MLD) from the load displacement chart.

$$MLD(LT) = 10,760$$

5. Use the average dredged material density slurry sounding to obtain the Dredged Slurry Volume (DSV) from the ullage table.

$$DSV(cy) = 4,953$$

6. Use the average bin residual water sounding to obtain the Bin Water Volume (BWV) from the ullage table.

$$BWV(cy) = 105.31$$

7. Obtain the Residual Bin Water Weight (BWW)

$$\begin{aligned} BWW(LT) &= (BWV(cy)) \times (RWD(g/L)) \times (0.0007525(LT/cy) / (g/L)) \\ BWW(LT) &= (105.31(cy)) \times (1,013(g/L)) \times (0.0007525(LT/cy) / (g/L)) \\ BWW(LT) &= 80 \end{aligned}$$

8. Obtain the Corrected Light Displacement (CLD)

$$\begin{aligned} CLD(LT) &= (GLD(LT)) - (BWW(LT)) \\ CLD(LT) &= (5,740(LT)) - (80(LT)) \\ CLD(LT) &= 5,660 \end{aligned}$$

9. Obtain the Net Bin Load (NBL)

$$\begin{aligned} NBL(LT) &= (MLD(LT)) - (CLD(LT)) \\ NBL(LT) &= (10,760(LT)) - (5,660(LT)) \\ NBL(LT) &= 5,100 \end{aligned}$$

10. Obtain the Average Bin Density (ABD)

$$\begin{aligned} \text{ABD(g/L)} &= (\text{NBL(LT)}) / \{ (\text{DSV(cy)}) \times (0.0007525 \text{ (LT/cy)} / (\text{g/L})) \} \\ \text{ABD(g/L)} &= (5,100 \text{ (LT)}) / \{ (4,953 \text{ (cy)}) \times (0.0007525 \text{ (LT/cy)} / (\text{g/L})) \} \\ \text{ABD(g/L)} &= 1,368 \end{aligned}$$

11. Obtain the Bin Solids Ratio (BSR)

$$\begin{aligned} \text{BSR} &= \{ (\text{ABD(g/L)}) - (\text{RWD(g/L)}) \} / \{ (\text{SBD(g/L)}) - (\text{RWD(g/L)}) \} \\ \text{BSR} &= \{ (1,368 \text{ (g/L)}) - (1,013 \text{ (g/L)}) \} / \{ (1,598 \text{ (g/L)}) - (1,013 \text{ (g/L)}) \} \\ \text{BSR} &= 0.6068 \end{aligned}$$

12. Obtain the Bin Load Quantity (BLQ)

$$\begin{aligned} \text{BLQ(cy)} &= \text{BSR} \times (\text{DSV(cy)}) \\ \text{BLQ(cy)} &= 0.6068 \times (4,953 \text{ (cy)}) \\ \text{BLQ(cy)} &= 3,005 \end{aligned}$$

13. Determine the minutes per load

$$\begin{aligned} \text{Load time(min)} &= \text{Initial Cycle Time(min)} - \text{Initial Pump Time(min)} + \\ \text{New Pump Time(min)} & \\ \text{Load time(min)} &= 169 \text{ (min)} - 124 \text{ (min)} + 70 \text{ (min)} \\ \text{Load time(min)} &= 115 \end{aligned}$$

14. Determine the number of loads obtainable in 1 hour

$$\begin{aligned} \text{Loads obtained in 1 hr. (ea.)} &= (1 \text{ (hr)}) / ((\text{Original Cycle Time} - \\ &(\text{Original Pump Time} - \text{New Pump Time})) \text{ (min)}) / 60 \text{ (min)} \\ \text{Loads obtained in 1 hr. (ea.)} &= (1 \text{ (hr)}) / ((169 - (124 - 70)) \text{ (min)}) / \\ 60 \text{ (min)} & \\ \text{Loads obtained in 1 hr. (ea.)} &= 0.522 \end{aligned}$$

15. Determine the number of loads obtainable in 24 hr period

$$\begin{aligned} \text{Loads obtained in 24 hrs. (ea.)} &= \text{Loads in obtained in 1 hr. (ea.)} \times 24 \\ \text{Loads obtained in 24 hrs. (ea.)} &= 0.522 \text{ (ea.)} \times 24 \\ \text{Loads obtained in 24 hrs. (ea.)} &= 12.522 \end{aligned}$$

16. Determine the cubic yards obtainable for 24 hours

$$\begin{aligned} \text{cy} &= (\text{BLQ(cy)}) \times (\text{Cycles obtained in 24 hrs. (ea.)}) \\ \text{cy} &= (3,005 \text{ (cy)}) \times (12.522 \text{ (ea.)}) \\ \text{cy} &= 37,628 \end{aligned}$$

17. Determine the cubic yards obtainable per hour

$$\begin{aligned} \text{cubic yards per hour} &= (\text{cy}) / (24 \text{ (hr)}) \\ \text{cubic yards per hour} &= (37,628 \text{ (cy)}) / (24 \text{ (hr)}) \\ \text{cubic yards per hour} &= 1,568 \end{aligned}$$

18. Determine the economic bin load (EBL)

$$\begin{aligned} \text{EBL} &= \text{pump time that yields the highest cubic yards per hour} \\ \text{EBL} &= 1,568 \text{ (cy/hr)} \end{aligned}$$

1.10 HOPPER LEAKAGE TEST

Should it be determined the dredge is indicating a loss of dredged material due to leakage, the dredge will be required to perform a Hopper Leakage Test. The dredge will be required to complete the following testing

procedures:

- a. Put overflow in highest position
- b. Empty hopper to lowest possible level
- c. Lower dragarms to 20 feet
- d. Begin pumping water through dragarms
- e. Stop pumping once the water reaches the overflow
- f. Record the volume of water in the hopper
- g. Wait one hour and record the volume of water in the hopper again

In order for the dredge to pass the test and begin/resume work, it must have no more than a 5% loss in the maximum hopper volume achieved during the test in a one hour period. Should the dredge have more than a 5% loss in volume over a one hour period, it is considered to fail the test and will be on 0% pay time until the leak is repaired. This test may be performed again at anytime during the contract when an indication of leakage exists.

PART 2 PRODUCTS

Although listed under "PRODUCTS", due to the fact that the services of the equipment are leased by the Government, the equipment described herein remains the property of the Contractor at all times.

2.1 PLANT

Plant shall be kept in condition for efficient work at all times. Award of this contract shall not be construed as a guarantee by the Government that the plant that the Contractor intends to use is adequate for the performance of the work. No reduction in the capacity of the dredge plant shall be made except by prior written permission of the Contracting Officer.

If the Contracting Officer determines that any item of plant, or any part thereof:

Is inadequate for the service required;

Is not being operated at full capacity;

Has become unserviceable or incapable of efficient work; or

Is not being effectively operated because of insufficient numbers, qualifications, or expertise of crew;

Then the Contracting Officer shall notify the Contractor in writing of his decision. The Contractor shall then replace any unsatisfactory plant and correct any defects, including incompetent crew.

The Government will not be responsible for the dredge and attendant plant or any damage thereto during the period of the contract. The Contractor shall release the Government, and its officers and agents, from responsibility for damages ordinarily covered by fire and marine insurance.

2.1.1 Dredge Physical Data

Dredge physical data is required for submittal in the data sheets located at the end of this section. If any of the data submitted in the plant data sheets changes during the execution of the contract, the Contractor shall submit new data to the Government within 48 hours, showing the changes made to the equipment, along with the date the changes were made.

2.1.2 Substitution of Plant

Substitution of the dredge may be allowed provided the Contractor furnishes written justification, the Contracting Officer agrees in writing to the substitution and the following conditions are met:

- a. The substitute dredge meets all of the requirements of this contract and that the Contractor submits clear evidence that the substitute dredge performs at the rate set forth in the table on work similar to that of this contract located in the paragraph entitled "Dredge Plant".
- b. The Government is reimbursed all costs in connection with inspection of the substitute dredge, if such is required.
- c. The substitute dredge is delivered to the worksite before the original dredge is shut down and moved off the worksite. This requirement does not apply to substitutions made during release periods.
- d. If the substitute dredge does not fit the same bid lot as the original dredge, then rates for the substitute dredge will be computed separately for the dredging payment Items as follows:

Substitute Dredge Hourly Rate =

$$\frac{(\text{Original Base Item Estimated Quantity}) \times (\text{Original Base Item Unit Price})}{\text{Estimated Quantity From Base Item Bid Schedule of Applicable Bid Lot for Substitute Dredge}}$$

The remaining hours, if any, on the Basic Payment Items will be prorated so that payments available to the Contractor under Option Payment Items will be unchanged. Option dredging payment hours will also be prorated separately, so that the total payments available to the Contractor for exercised options remains unchanged.

- e. Mobilization and demobilization costs for the substitute dredge shall be borne by the Contractor.
- f. The dredge quality management system shall be fully operational at the start of dredging for the substitute dredge. The same requirements for the dredge quality management system for the original dredge shall apply to the substitute dredge.
- g. Payment will resume for the substituting dredge:
 - (1) If the dredge returns to an assignment in the same dredging region, when dredged material starts flowing into the hopper; or
 - (2) If the dredge returns to an assignment in a different dredging region, when the dredged material starts flowing into the hopper

at the new assignment.

2.1.3 Addition of Plant

a. At the Contractor's option and with the approval of the Contracting Officer, an additional hopper dredge or dredges with attendant plant may work simultaneously with the primary hopper dredge and its attendant plant provided the criteria below is met.

(1) Whenever two or more dredges are approved for simultaneous work on the contract, the dredge representing the specific "Lot" from which the Contractor submitted the bid on will be considered the primary dredge.

(2) The Contractor shall submit clear evidence that the additional dredge(s) can perform at the rate set forth in the table located in the paragraph entitled "Dredge Plant" on work similar to that of this contract.

(3) The additional dredge(s) shall provide its own attendant plant, as described in the paragraph entitled "Dredge Attendant Plant", at no additional costs to the Government.

(4) In the event draghead deflectors are deemed necessary by the Government for continued dredging operations, the Contractor shall be required to bear the cost of installing draghead deflectors on the additional dredge(s).

(5) The additional dredge(s) shall conform to the same environmental requirements of the primary hopper dredge.

(6) The dredge quality management system shall be fully operational at the start of dredging for the additional dredge(s). The same requirements for the dredge quality management system for the primary dredge shall apply to the additional dredge(s).

b. Furthermore, the following conditions will apply to the additional dredge(s).

(1) No payment will be made for mobilization and demobilization to/from the dredging region(s) for the additional dredge(s).

(2) The additional dredge(s) will be paid only for 100% Pay Time. Time classified as 80%, 60%, 48%, 35%, and 21% will be considered 0% pay time and will not be paid for.

(3) If the additional dredge(s) is not the same bid lot size as the primary dredge, payment for the additional dredge(s) will be determined using a rate computed as follows:

Additional Dredge Hourly Rate =

$$\frac{(\text{Original Base Item Estimated Quantity}) \times (\text{Original Base Item Unit Price})}{\text{Estimated Quantity From Base Item Bid Schedule of Applicable Bid Lot for Additional Dredge}}$$

(4) Upon commencement of dredging operations by the additional dredge(s), the remaining hours on the basic payment items will be prorated to each dredge so that total contract payments will

remain unchanged. If applicable, option dredging payment hours will also be prorated separately so that the total contract payments for the exercised options will remain unchanged.

2.1.4 Dredge Plant

a. The hopper dredge shall be of the self-propelled, trailing, suction-type, equipped with the number of trailing suction pipes (dragarms) designated in the chart shown in paragraph b., each of which has its own dredge pump.

b. Theoretical hopper dredge production rates for this contract are based on production rate tests that are correlated to documented dredge-and-haul and agitation production rates of the retired Government Dredge LANGFITT. The theoretical production rates for each dredge class shown in the table below have been developed based on this method. Refer to the paragraph entitled "Production Rate Test", for conditions that may affect contract dredging rates and payment hours. Mobile District - Historical Dredge and Haul Rates are shown at the end of this Section for informational purposes.

THEORETICAL HOPPER DREDGE PRODUCTION RATES (cy/day)						
Bid Lot	Pump Inside Diameter (inches)	Hopper Size (cubic yards)	Number of Drag Arms	Dredge & Haul Production All Projects	Agitation Production	
					SW Pass (cy/day)	Calcasieu (cy/day)
1	38.0	12,430	2	85,383	217,037	244,166
2	33.5	9,400	2	64,729	164,890	185,502
3	33.5	6,300	2	51,286	167,856	188,838
4	31.5	6,540	2	46,978	125,107	140,746
5	30.0	4,815	2	45,029	135,530	152,471
6	28.0	4,000	2	41,663	131,994	148,493
7	27.0	3,600	2	36,435	130,153	146,422
8	26.0	4,000	2	34,095	95,227	107,129
9	27.0	3,700	2	32,476	92,724	104,314

c. The dredge shall be capable of dredging in water depths ranging from 30 feet to 55 feet and in river currents of up to five knots. It shall have twin propellers and sufficient propulsion power to dredge upstream at a minimum speed of two knots against a current of five knots. The speed of the dredge in still water with the hopper fully loaded and dragarms raised shall be at least nine knots.

d. The dredge must be capable of dredging in either the agitation mode or dredge-and-haul mode, and must possess the ability to convert from one mode to the other at the jobsite. Agitation dredging must be accomplished by means of discharging from the dredge pumps into the hopper, with overboard disposal from the hopper at or above the water surface. The Contractor will be allowed to perform agitation dredging by pumping directly overboard (bypassing the hopper) only if prior approval is obtained from the Contracting Officer.

e. The dredging method to be used will be directed by the Contracting Officer and may be changed at any time by issuing a new or amended assignment. Dredges whose sole means of disposal in the agitation mode is by overboard discharge below the water surface are not acceptable unless waived by the Contracting Officer.

f. A rigid sea turtle draghead deflector shall be installed on the dredge prior to the start of work, and remain installed during all hopper dredging activities performed on the Calcasieu River Bar Channel, as described in Section 01 57 20.00 10, paragraph entitled "Turtle Deflector Requirements". The Contractor shall submit a detailed drawing outlining the actual dimensions for the deflectors for approval by the Contracting Officer prior to commencement of dredging.

(1) The turtle deflector shall be designed so that the bottom surface of the deflector is parallel with the bottom of the channel at the required dredging depth.

(2) The water intake ports on the top of the draghead shall be screened with metal elliptical cages, or other suitable means to exclude sea turtles from entering. All screens or cages shall have four inch by four inch or smaller openings. The use of scraper blades attached to the dragheads will be allowed.

(3) The turtle deflector device, when installed, shall be maintained in operational condition during the entire dredging operation.

(4) The turtle deflector device shall be approved by the Contracting Officer prior to commencement of dredging operations. Two sketches outlining the minimum dimensional criteria for the deflectors are attached at the end of this section. The sketches are titled "Plan View - Rigid Turtle Deflector" and "Elevation View - Rigid Turtle Deflector". The Contractor shall submit a detailed drawing outlining the actual dimensions for the deflectors for approval by the Contracting Officer prior to commencement of dredging.

(5) The bottom surface of the draghead, i.e. the part of the draghead that comes in contact with the bottom, shall not contain a screen that is added to the draghead to prevent large debris from entering. If the draghead were to injure or kill a turtle, a screen may prevent the injured or killed turtle from entering the draghead.

(6) Use of a slot-faced type of turtle deflector shall not be allowed.

g. Screen structure(s) as described in Section 01 57 20.00 10, paragraph entitled "Turtle Monitoring Equipment" shall be available on the dredge as part of the normal operating equipment.

h. Dredge pumps shall be considered to be operable if respective pumps are maintained at the brake horsepower and corresponding engine RPM's (during dredging operations) applied to each pump impeller at rated drive of the prime mover, as reported in accordance with the specifications on the Hopper Dredge and Attendant Plant Data Sheet located at the end of this section. This shall be termed herein as

standard dredge pump operation. Any dredge pumps not performing at standard dredge pump operation while dredging shall immediately be repaired and returned to performance at standard dredge pump operation. Refer to the paragraph entitled "Dredging and Option Dredging Items", for pump operational status effects on fractional pay time.

i. The Contractor shall submit both a hard copy and an electronic version of the manufacturer's pump curve for each pump to be used during the project within five calendar days after Contractor receipt of government Notice to Proceed. This includes the dredge's main pump, ladder pump if applicable and booster pump(s) if applicable. If a substitution of equipment occurs during the contract, the pump curve of the substituted pump(s) must be submitted at the time of substitution. Each pump curve submitted shall be clearly designated with the dredge's name, contract number, pump function (main pump, ladder pump, or booster pump, etc.) pump HP and RPM's. The pump curve shall consist of the pump's performance for water plotted against hydraulic head and discharge velocity and GPM's. A Sample Manufacturer's Performance Curve is included at the end of this section. One copy of this information shall be sent to the USACE Office and address listed in the paragraph entitled "Reports".

j. The dredge shall have a load-displacement chart recorder capable of measuring and recording the vessel load in long tons, for the full range of possible loads of the dredge. Daily recordings shall be automatically made and turned in with the Daily Report of Operations. The Contractor shall maintain adequate supplies to operate and maintain the functionality of the chart recorder for the contract duration. All hopper bin loads shall be measured using the calibrated load-displacement chart.

k. The dredge shall have on board an official and current ullage table for the dredge, certified by a licensed professional marine surveyor for the existing configuration of the hopper bin. The ullage table shall show a bottom-to-top volume in the hopper bin at various levels corresponding to soundings in the bin, measured from the top of the bin coaming downward into the bin. In other words, the maximum possible sounding value shall correspond to zero volume and the minimum possible sounding value shall correspond to the maximum possible bin volume. The ullage table shall display these bin volumes in cubic yards for every foot-and-tenths increment for the full range of possible bin soundings.

l. The Contractor shall have on the dredge a clearly readable steel weighted tape with measurements shown in foot-and-tenths, capable of measuring the full depth in the hopper bin from the bin coaming. The weight for this tape shall be a six inch diameter disk weighing two pounds two ounces.

m. The hopper dredge shall be equipped with on board capabilities such as water jets, fixed water nozzles, or manually operated water hoses with minimum diameter hoses of 2.5 inches to wash out any residual dredge material as stated in the paragraph entitled "Bin Load Production Computation".

2.2 GAGES

a. Staff gages or recording gages are present in each dredging region,

which indicate the water surface elevation. The locations of the appropriate gages will be provided by the Contracting Officer at the pre-work conference. These gages shall be read a minimum of twice a day, while dredging is performed, at the direction of the Contracting Officer.

b. Project depths for all dredging regions are measured from 0.0 feet MLLW (Mean Lower Low Water) datum except where otherwise stated within paragraph entitled "Location and Description of Work". The required actual depths are determined as the listed project depth plus the gage reading.

c. The gage for the Calcasieu River is located at the Lake Charles Pilots dock two miles southwest of Cameron, LA.

d. The following staff gages shall be used for the Southwest Pass dredging region.

GAGE NAME (ID)	LOCATION (MILE)	GAGE CORRECTION TO MLLW
Venice (01480)	10.5 AHP (RDB)	(-) 0.30
Pilottown (01525)	2.0 AHP (LDB)	(-) 0.30
WH-7 (01545)	-0.5 BHP (LDB)	(-) 0.18
Mile 7.5 (01575)	-7.2 BHP (RDB)	0.17
Light #14 (01625)	-12.0 BHP (LDB)	0.39
East Jetty (01670)	-17.9 BHP (LDB)	0.68

Note: All gages are set to NAVD88 (2009.55). The gage corrections shall be added to the gage readings to adjust them to MLLW.

e. Project depths for the Mississippi River Crossings are measured from the Low Water Reference Plane (LWRP). The gages for this area are set to the National Geodetic Vertical Datum (NGVD). The required actual depths are determined as the water surface elevation plus the project depth, minus the LWRP elevation. At some crossings, linear interpolation between gages may be required to determine the water surface elevation and LWRP elevation.

f. The Contractor shall furnish a Hazen or compatible remote, automatic recording tide gage that may be monitored aboard the dredge. However, it shall be understood that this gage is not to be used for reducing surveys of the channel.

g. This information is provided to comply with the requirements outlined in EM 1110-2-6056, Standards and Procedures for Referencing Project Elevation Grades to Nationwide Vertical Datums. This engineering manual outlines the requirement to reference all coastal navigation projects to Mean Lower Low Water (MLLW). The relationship to the authorized project datum, Mean Low Gulf (MLG), is provided below for reference.

For Southwest Pass, 0.0 feet MLLW = 3.5 feet MLG.

The project benchmarks referenced below have been incorporated into the National Spatial Reference System database:

(1) SOUTHWEST PASS PROJECT BENCHMARK

Mississippi River at Venice

DESIGNATION: 876 0849 A TIDAL
 PID: AT1390
 LAT/LON: N 29 16 00.52795 W 089 21 10.35484 NAD83 (2011)
 NORTH/EAST: N 284,325.15 E 3,912,287.82 SPC LA S (US feet)
 ELEVATION: 1.53 feet NAVD88 (2009.55)
 ELEVATION: 4.73 feet MLG
 MARKER: BENCH MARK DISK
 STAMPING: 0849 A 1985
 DESCRIPTION: THE STATION IS LOCATED IN VENICE, 8 MILES SOUTH SOUTHEAST OF BURAS, AT THE END OF HWY. 23 ON A GRAVEL ROAD LEADING TO NEW CONSTRUCTION AT THE TIME OF RECON AND A RED AND WHITE TOWER. (LOCATION OF NEW BUILDING WILL BE A WILDLIFE AND FISHERIES HEADQUARTER). OWNERSHIP- PLAQUEMINES PARISH. TO REACH THE STATION FROM THE INTERSECTION OF THE POST OFFICE AND HWY. 23 GO SOUTHEAST ON HWY. 23 FOR .9 MILES TO A CURVE TO THE RIGHT, GO AROUND CURVE TO A CROSS ROAD (JUMP BASIN RD.), TURN LEFT FOR .05 MILES TO A SHELL ROAS TO RIGHT (OFFSHORE SHIPYARD RD.) TURN RIGHT AND GO SOUTHEAST FOR .15 MILES TO A MARK ON THE LEFT ALONG A FENCE LINE JUST BEFORE ENTERING INTO A GATE. 23.7 M NORTH FROM THE NORTH 1 OF 2 YELLOW KEYPAD SUPPORT POSTS, 13.7 M EAST FROM A RED FIRE HYDRANT, 8.0 M NORTHEAST FROM THE CENTER OF A GRAVEL ROAD, 1.0 M NORTHEAST FROM A METAL POST WITH WITNESS SIGN ATTACHED, 0.5 M FROM A CARSONITE WITNESS POST, AND 0.3 M BELOW THE LEVEL OF THE GROUND.

(2) CALCASIEU RIVER BAR CHANNEL PROJECT BENCHMARK

Calcasieu River at Cameron

DESIGNATION: 876 8094 E TIDAL
 PID: DJ9387
 LAT/LON: N 29 46 05.85405 W 093 20 29.04536 NAD83 (NA2011)
 NORTH/EAST: N 466,812.80 E 2,643,771.70 SPC LA S (US feet)
 ELEVATION: 4.56 feet NAVD88 (2009.55)
 ELEVATION: 6.86 feet MLG
 MARKER: FLANGE-ENCASED ROD
 STAMPING: 8094 E 2004
 DESCRIPTION: TO REACH FROM THE JUNCTION OF LA-27 AND DAVIS ROAD IN CAMERON, GO 2.55 MI SOUTH ON DAVIS ROAD TO THE BOAT RAMP AREA AND THE MARK ON THE NORTH SIDE NEAR ENTRANCE. MARK IS 91 FT NORTHWEST OF DAVIS ROAD CENTERLINE, 42 FT NORTH OF THE BOAT RAMP PARKING AREA, 18 FT SOUTH OF TOP OF BANK, 3.75 FT SOUTH OF A WITNESS POST AND 3.5 FT EAST-SOUTHEAST OF SECURITY TIE DOWN.

2.3 COMMUNICATIONS EQUIPMENT

The Contractor shall furnish and maintain the following communications equipment for the dredge, throughout the period of the contract. Final approval of the plant will not be made until this equipment is installed and in good working order.

2.3.1 Cellular Telephone

The Contractor shall provide a portable cellular telephone aboard the dredge, with two rechargeable power packs and all necessary recharging equipment and cables. The telephone shall be available for official use by

the Government Inspectors on a 24 hour a day basis to exclusively conduct Government business and emergency calls.

2.3.2 Satellite Telephone

The Contractor shall provide functioning 24-hour satellite telephone service with voice and facsimile capability aboard the dredge. The satellite telephone service shall have, as a minimum, voice capability of 4.8 kb/s (kilobytes per second) voice coding and fax speed of 2.4 kb/s. The satellite telephone shall be made available for official use by the Government inspectors on a 24-hour per day basis to exclusively conduct Government business and emergency calls.

2.3.3 Marine VHF-FM Radio

The Contractor shall furnish and maintain one VHF-FM ship's radio transceiver for the dredge, with power not in excess of 25 watts, and output of at least 15 watts on the maritime frequencies of 156.800 (Channel 16) and 156.375 (Channel 67) MHz 16F3 emission, with plus or minus five KHz at 100% modulation. Marine radio equipment shall be operated in accordance with applicable FCC regulations.

2.3.4 Radio, Facsimile Machine and Telephone Communication Equipment

No separate measurement will be made for furnishing and maintaining marine radio, facsimile machine and telephone communication equipment. Cost for communication equipment shall be included in the contract unit price for "Dredging" and "Option Dredging".

2.3.5 Automatic Identification System (AIS)

The dredge shall be equipped with an Automatic Identification System (AIS) in accordance with the Code of Federal Regulations, 33 CFR 164, reference the note to 164.46(a). The system shall be operable at all times throughout the contract period. For further information, go to: http://edocket.access.gpo.gov/cfr_2005/julqtr/pdf/33cfr164.46.pdf.

2.4 DREDGE ATTENDANT PLANT

Attendant plant shall be composed of any launches, barges, or other auxiliary plant as may be required for operation under these specifications. Motorized lifeboats are not considered attendant plant. If present, they are considered as part of the dredge safety equipment. The attendant plant shall be maintained in good condition and shall be of sufficient size and capacity to efficiently serve the dredge. No separate payment will be made for additional attendant plant provided by the Contractor for its own convenience in performing the work.

2.5 CREW BOAT

The Contractor shall furnish, throughout the contract period, for the exclusive use of the Government, one diesel powered or gas powered crew boat, with twin propellers, capable of maintaining and traveling no less than the minimum speed of 30 miles per hour, not less than 40 feet in overall length, with enclosed space for at least six passengers after installation of all required equipment. The crew boat shall meet or exceed all applicable US Coast Guard regulations for vessels 65 feet or less in length, and shall be certified by the US Coast Guard. The crew boat shall be equipped with the following:

- a. air conditioning and heating;
- b. VHF-FM marine radio transceiver for ship-to-ship communications, described in the paragraph entitled "Communications Equipment";
- c. Navigation radar, as described in the paragraph entitled "Navigation Radar";
- d. Safety equipment meeting the inspection requirements of the US Coast Guard Auxiliary and EM 385-1-1.

Equipment, which fails to perform because of insufficient power or other mechanical deficiencies, or due to inexperienced operators, shall be replaced, or the operator replaced, as the case may be, within 12 hours after the Contractor is directed to do so by the Contracting Officer's Representative. The crew boat will be used solely for providing the Government Inspectors and Government Agents transportation, and not for conducting surveys, providing transportation for the Contractor's personnel or transporting the Contractor's supplies. The Contractor shall make provisions to obtain a separate crew boat or vessel for conducting Contractor-related operations. In addition, the Contractor shall provide, for the exclusive use of the government, a separate crew boat for each dredge that is performing work. The minimum full time crew for the crew boat shall be one operator. The crew boat shall be operated and available 24 hours a day. Refer to EM 385-1-1, Sections 19.F for additional crew and equipment requirements. Smoking shall not be allowed inside the cabin and operator's space while occupied by Government personnel. NO SMOKING signs shall be posted.

2.6 NAVIGATION RADAR

The dredge and crew boat shall be equipped with navigation radar for use in inclement weather and at night. All radar equipment used under this contract shall be installed so that it will continue functioning on battery power in the event of generator failure. Any additional attendant plant to be operated at night must be radar equipped as well. No separate payment will be made for radar equipment. The Contractor shall include any and all costs for radar equipment in the contract prices for items of work to which the work is incidental thereto.

2.7 DEPTHSOUNDERS

The dredge must be fitted with an efficient electronic depthsounder in accordance with U.S. Coast Guard regulation 46 CFR 96.27-1. The Contracting Officer's Representative shall be present at all depthsounder calibrations. The speed of sound calibration method will be approved by the Contracting Officer's Representative. A calibration shall be performed at the start of each day, when the vessel moves to another survey locale and after any maintenance is performed on the depthsounder (to include chart paper replacement). Once the calibration is complete, no speed of sound adjustments shall be made until the next calibration. The depthsounder shall be calibrated at a depth equal to 80% of the maximum expected survey depth or at a depth of 40 feet (whichever is less). The analog chart paper recording of the calibration shall be provided to the Contracting Officer's Representative.

2.8 SERVICES TO BE FURNISHED TO THE GOVERNMENT

a. The Contractor shall be required to furnish, on the request of the Contracting Officer or any inspector:

(1) The use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the floating plant, as may be reasonably necessary in inspecting and supervising the work;

(2) Suitable transportation between the worksite and all points on shore designated by the Contracting Officer, by means of the crew boat described in the paragraph entitled "Crew Boat".

b. Equipment which fails to perform because of insufficient power or other mechanical difficulties or due to inexperienced operators shall be replaced, or the operator replaced, as appropriate, within 12 hours after the Contractor is directed to do so.

c. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost will be deducted from any amounts due or to become due the Contractor.

PART 3 EXECUTION

3.1 LOCATION AND DESCRIPTION OF WORK

a. The dredge will primarily be used for maintenance dredging operations in the location described in the paragraph entitled "Primary Dredging Region". Other locations are possible, as described in the paragraph entitled "Secondary Dredging Regions".

b. The work shall consist of removal and satisfactory disposal of material from the navigation channel(s) as directed by the Contracting Officer. The materials to be dredged may consist of trash, roots, rip rap, gravel, sand, silt, mud, clay and may include debris such as logs, rope, chain, cable, old piles, etc.

c. Some portions of the designated disposal areas may be too shallow for the dredge to safely navigate. The Contractor shall be responsible for locating a safely usable portion of the disposal area through an independent survey to be obtained by the Contractor. Disposal of material outside of the designated disposal areas shall be handled as per the provisions of the clause entitled "Obstruction of Navigable Waterways" (DFARS 252.236-7002) located in Section 00700.

d. The Contractor shall record the x and y coordinates of the dredge's location, immediately before and after placing a load of dredged material at a given designated disposal area. A printout of this data shall be supplied daily with the Mate's Log to the Government Inspector.

e. The authorized dimensions are listed in the Primary Dredging and Secondary Dredging Region paragraphs of this section. Advance maintenance dredging below the authorized dimensions may be required. If advance maintenance is required, then the dimensions will be specified in the dredging assignments. Structures and utilities may exist within a dredging assignment. The Contractor shall verify that dredging areas are clear of structures and utilities prior to working

in the vicinity of the structures or utilities. For further information concerning dredging dimensions near structures and utilities, refer to the paragraph entitled "Working in the Vicinity of Structures and Utility Crossings".

3.2 ORDER OF WORK

a. The order of work to be performed under this contract cannot be determined except as the work progresses. Successive dredging location assignments may be either upstream or downstream and may not be at consecutive or contiguous locations. Repetitive assignments may be required at the same locations.

b. Assignments shall be determined by the Contracting Officer and will be given to the Contractor's representative aboard the dredge who is in charge of the operation. Assignments may be changed at any time without any prior notice. The Contractor may be required to stop work at any time without completing an assignment.

c. The Contractor shall endeavor to meet the schedule of dredging operations as determined by the Contracting Officer. Operations shall be performed 24 hours a day, seven days a week, including those days which have been declared by Congress to be legal holidays for per diem employees of the Federal Government.

3.3 PRIMARY DREDGING REGION

It is anticipated that the dredging assignments will be principally in the region described below. Other dredging assignments are possible in other regions, which are described in the paragraph entitled "Secondary Dredging Regions". Dredging coordinates shall be provided with each new dredging assignment.

3.3.1 Mississippi River, Cubit's Gap and Southwest Pass, Louisiana

The authorized dimensions of the channel are 45 feet Mean Low Gulf (MLG) datum by 750 feet bottom width from New Orleans to Mile 17.5 Below Head of Passes, then narrowing to 600 feet wide through the jetty channel and bar channel. The authorized depth of -45 feet MLG is equivalent to -48.5 Mean Lower Low Water (MLLW) in the vicinity of Southwest Pass, up to Mile 13.4 Above Head of Passes. See the attached Southwest Pass & Mississippi River Hopper Disposal Areas plate at the end of this section. When it becomes necessary to empty the hopper, the dredged material shall be placed in the designated disposal areas as directed by the Contracting Officer's Representative.

3.4 SECONDARY DREDGING REGIONS

Dredging at another region in the New Orleans District or outside of the New Orleans District may become necessary during the term of this contract. Except for those already covered in the Payment clauses of these specifications, an equitable adjustment will be made for such additional costs under the contract clause entitled "Changes" (FAR 52.243-4). Payment for work performed in these other regions will be made at the applicable contract unit prices, as described in the paragraph entitled "Dredging and Option Dredging Items". It should be noted that secondary dredging regions are not limited to the following areas and that if other secondary dredging regions are utilized that additional information will be provided related to the proposed secondary dredging reach. These channels are listed below

as "Secondary Dredging Regions". Movement between primary or secondary dredging regions will be paid in accordance with the terms of the paragraph entitled, "Dredging and Option Dredging Items". The Contractor shall verify all datums prior to beginning work.

3.4.1 Calcasieu River Bar Channel, Louisiana

The authorized dimensions of the Calcasieu River Bar Channel are -42 feet Mean Low Gulf (MLG) by 800 feet wide from the end of the rock jetties (Mile -1.7) through the end of the bar channel (Mile -31.97). See the attached Calcasieu River and Pass Maintenance Dredging plates at the end of this section.

a. Reference Information. The Calcasieu River Bar Channel is 32.0 miles in length and is divided into three tangents (all in NAD 83) as follows:

(1) Tangent No. 1 runs from station 0+00 (approximately mile -1.7) at the end of the jettied channel, to PI station 430+62 (approximately mile -9.84). The true azimuth of this tangent is 171 degrees, 49 minutes, 23.0 seconds and the grid azimuth is 172 degrees, 49 minutes, 36.5 seconds. The coordinates of station 0+00 are $x = 2,643,799$ and $y = 457,568$, Lambert; those of P.C. station 415+51 are $x = 2,648,987$ and $y = 416,343$, Lambert.

(2) Tangent No. 2 runs from PI station 430+62 (approximately mile -9.84) to station 924+79.3 (approximately mile -19.20). The true azimuth of this tangent is 141 degrees, 36 minutes, 47.6 seconds with a grid azimuth of 142 degrees, 36 minutes, 26.4 seconds. The coordinates of PT station 445+73 are $x = 2,650,120$ and $y = 413,579$, Lambert, and the coordinates of PC station 906+03 are $x = 2,678,073$ and $y = 377,008$, Lambert.

(3) Tangent No. 3 runs from station 924+79.3 (approximately mile -19.20) to station 1597+67.5 (approximately mile -31.76). The true azimuth of this tangent is 179 degrees, 11 minutes, 11.3 seconds, and the grid azimuth is 180 degrees, 07 minutes, 56.1 seconds. The coordinates of PT station 943+55.5 are $x = 2,679,250$ and $y = 373,515$, Lambert; those of station 1597+67.5 are $x = 2,679,099$ and $y = 308,104$, Lambert.

Disposal areas are listed below.

Disposal Site No. 1:

LATITUDE	LONGITUDE	NAD 83 STATE PLANE GRID	
		X	Y
29° 44' 31" North	93° 20' 43" West	2,642,326.49	457,336.45
29° 39' 45" North	93° 19' 56" West	2,645,964.72	428,379.64
29° 39' 34" North	93° 20' 46" West	2,641,534.65	427,345.97
29° 44' 25" North	93° 21' 33" West	2,637,908.74	456,808.19

Disposal Site No. 2:

LATITUDE	LONGITUDE	NAD 83 STATE PLANE GRID	
		X	Y
29° 37' 50" North	93° 19' 37" West	2,647,438.45	416,736.14
29° 37' 25" North	93° 19' 33" West	2,647,747.45	414,205.16
29° 33' 55" North	93° 16' 23" West	2,664,154.69	392,708.48
29° 33' 49" North	93° 16' 25" West	2,663,967.82	392,105.51
29° 30' 59" North	93° 13' 51" West	2,677,281.29	374,708.53
29° 29' 10" North	93° 13' 49" West	2,677,275.59	363,697.09
29° 29' 05" North	93° 14' 23" West	2,674,262.67	363,242.02
29° 30' 49" North	93° 14' 25" West	2,674,260.86	373,748.49
29° 37' 26" North	93° 20' 24" West	2,643,248.73	414,384.75
29° 37' 44" North	93° 20' 27" West	2,643,015.88	416,207.27

3.4.2 Mississippi River Crossings Between New Orleans and Baton Rouge, Louisiana

The authorized dimensions of the channel are -45 feet, measured from the Low Water Reference Plane (LWRP) by 500 feet bottom width from New Orleans to Baton Rouge, Louisiana. These dimensions may change during the course of the contract due to changes in Congressional authorization.

- a. The crossings listed here may be included in the assignments of the dredge. The number following the name of each crossing is the mileage location of the front downstream centerline range, above Head of Passes. The "L" or "R" after the mileage indicates whether the range targets are on the left or right descending bank:

Fairview	114.8 L
Belmont	152.2 L
Rich Bend	156.4 R
Smoke Bend	174.4 L
81 Mile Point	178.5 R
Philadelphia	182.1 R
Alhambra	189.3 L
Bayou Goula	197.0 R
Granada	203.0 L
Medora	211.3 R
Sardine Point	218.9 L
Red Eye	223.2 R
Baton Rouge Front	230.7 R

b. Dredging may be performed at any of these crossings as conditions dictate, and there may be multiple assignments at one or more crossings. Conversely, some crossings may not require dredging at all. The most recent available hydrographic survey of each crossing will be given to the Contractor if an assignment is given in this region. Authorized disposal areas will also be identified on these survey charts.

3.4.3 Mobile District

To perform maintenance dredging in navigation channels along the Gulf Coast of Mississippi, Alabama, and Northwest Florida.

a. The work to be performed for Mobile Harbor will consist of the removal and satisfactory disposal of all material lying above the plane of -52 feet (or as directed by the Contracting Officer), MLLW, over the bottom widths (full and/or partial) and applicable side slopes, at specific work location(s) all within the specified dredging limits of this contract. The Contracting Officer will furnish the specific work location(s) (in advance) within those limits of the project during the contract life. All material excavated from the assigned channel segments will be transported and deposited into the Gulf Open Water D/A as directed by the Contracting Officer.

b. Work at Pascagoula Harbor, Gulfport Harbor, Pensacola Harbor and Panama City Harbor is also possible. Work at projects other than Mobile Harbor is to address short-term urgent and compelling needs that do not warrant a separate contract. It is not the intent to preclude a separate contract for any of these other projects. All work will occur only as directed (assigned) by the Contracting Officer.

3.4.4 Galveston District

The following Projects represent the Secondary Regions of the Galveston District:

a. Sabine-Neches Waterway

(1) Sabine Bank Channel (in NAD 83). The authorized dimensions of the channel are -42 feet Mean Low Tide (MLT) datum by 800 feet bottom width.

(2) Sabine Pass Outer Bar Channel (in NAD 83). The authorized dimensions of the channel are -42 feet Mean Low Tide (MLT) datum by 800 feet bottom width.

(3) Sabine Pass Jetty Channel (in NAD 83). The authorized dimensions of the channel are -40 feet Mean Low Tide (MLT) datum by 800-500 feet bottom width.

b. Galveston Harbor and Channel (in NAD 83), Entrance Channel (in NAD 83). The authorized dimensions of the channel are -42 feet Mean Low Tide (MLT) datum by 800 feet bottom width.

c. Matagorda Ship Channel (in NAD 27), Corpus Christi Ship Channel (in NAD 83) and Brazos Island Harbor (in NAD 83). The authorized dimensions of these channels vary throughout the waterway and when necessary will be provided by the Contracting Officer.

3.5 MOVEMENT OF NAVIGATION AIDS

The Contractor shall not relocate any navigation aids (buoys, markers, etc.) during this contract. The Contractor shall conduct a survey of navigation aids to determine if any must be temporarily relocated to accomplish the work. For navigation aids in which the Contractor determines that relocation is necessary, the Contractor shall notify the Contracting Officer or his/her authorized representative and the U.S. Coast Guard, Aids to Navigation (985-384-7000) at least seven days prior to the need for relocation. All relocation of navigation aids shall be performed by the Coast Guard. The Government will not be responsible for any delays to the work due to the Contractor giving less than a seven day notification to the Coast Guard.

3.6 WORKING IN THE VICINITY OF STRUCTURES AND UTILITY CROSSINGS

a. The Contractor shall exercise caution when working in the vicinity of structures, such as bridges, and utility crossings, such as pipelines and cables. If dredging to the assigned elevation has the potential to endanger a particular structure or utility, the Contracting Officer, upon request, may elect to reduce the extent of the required excavation in the vicinity of the structure or utility.

b. Unless otherwise directed, the Contractor shall provide at least project channel dimensions over all structures and utility crossings. Prior to dredging, the Contractor shall contact Louisiana One Call at 811 and GulfSafe at 1-888-910-GULF to verify all utilities within the primary dredging region, including the dredging channel and disposal areas. Within 48 hours after issuance of Notice to Proceed, the Contractor shall submit a detailed plan of operation at each structure/utility crossing located within the primary dredging region. The plan shall contain at least the following:

(1) Louisiana One Call ticket number along with the utility's size, elevation, owner information and type of utility.

(2) GulfSafe ticket number along with the utility's size, elevation, owner information and type of utility.

(3) The Contractor shall investigate the current nautical charts published by NOAA and any other pertinent information or databases available.

(4) The Contractor shall notify the owners of all utilities located in the primary dredging region electronically and in writing by certified

mail. The Contractor shall provide a copy of this notification letter to the area engineer of the respective Area Office. The letter shall reference the following:

- (a) The dredge start date, the anticipated date(s) the Contractor will dredge over the utility and the anticipated completion date for work.
- (b) The anticipated elevation and width of dredge cut over the utility.
- (c) Point(s) of contact and telephone number(s).
- (d) Emergency procedures.
- (e) Any other information from the Contractor the utility owner would consider significant for safe dredging operations over the utility crossing.
- (f) Request that the owner verify the location of the utility and provide the most recent as-built plan and the most recent and accurate profile surveys.

(5) Emergency measures to be taken in the event of an accident.

The Contractor shall also provide transportation, meals, and/or lodging for any representatives of owners of structures or utility crossings who are deemed necessary to be present for safety reasons, by the Contracting Officer's Representative, to remain aboard the dredge while the Contractor is working in the vicinity of these crossings.

c. The Government will not be responsible for any damages to structures or utilities, loss of service costs of such structures/utilities, or damage to the Contractor's plant.

3.6.1 Utility Marking Required

Prior to dredging, the Contractor shall verify that the established location of all utilities within the dredging reach are visibly marked. If no markings exist, the Contractor shall contact the utility owner to visibly mark the crossing.

3.6.2 Existing Structures or Utilities

Information pertaining to existing structures, such as bridges, and/or utility crossings, such as pipelines and cables, within the primary dredging region is detailed within the attached tables. The listed data has been provided by the owners, or taken from permit applications, and has not been confirmed by the Government. The Contractor shall verify this data prior to working in the vicinity of the structures or utilities. If the Contractor detects a discrepancy in the data with actual conditions, the Contractor shall notify the Contracting Officer of the discrepancy within 24 hours of this occurrence. Large-scale drawings with pipeline crossings will be available to the Contractor upon request. The Government will provide existing structure and utility information prior to any work performed at secondary dredging regions that are not addressed.

Additional abandoned structures and utilities may also exist within the dredging and disposal areas. The Contractor shall make his own investigation of submerged, surface and overhead structures in the work areas and other locations he finds necessary to traverse. The exact location, depths and heights of submarine cables, pipes, powerlines, docks, piers, bulkheads, bridges, etc. (as applicable) are not known and it may be necessary for the Contractor to ascertain interference problems and notify

the respective owners in advance of dredging operations.

Upon completion of dredging, the Contractor shall submit to the Contracting Officer's Representative, the following:

- a. A listing of all structures and utilities within the dredging reach and disposal areas, including owner name, location, elevation of utilities and owner point of contact.
- b. A copy of any structure or utility as-builts, surveys, etc. received from the owner.

3.6.3 Location of Submerged Objects

- a. If the Contractor should locate a submerged object within the area of work, which endangers dredging operations or poses a hazard to general navigation, the Contractor shall note the location of the object, as determined from the electronic positioning system aboard its vessel. This location shall be reported to the Government Inspector. Dredging in the immediate vicinity of the reported object shall be curtailed until the nature of the object and the degree of hazard can be determined. Dredging shall resume at the location of the reported object when the Contracting Officer determines that a hazard no longer exists.
- b. If the Contractor issues a false report of a sunken object, the cost of the investigation shall be deducted from any amounts due, or to become due, the Contractor.
- c. This clause applies in the case of submerged objects which are created by others. Submerged objects or hazards created by the Contractor shall be considered an obstruction of navigable waterways as described in the clause entitled "Obstruction of Navigable Waterways" (DFARS 252.236-7002) in Section 00700.

3.7 DREDGE PRODUCTION RATE

3.7.1 Economic Bin Load

Hopper dredge operations shall be conducted in a manner that results in the most productive operating cycles. An economic bin load is defined as that hopper load, measured in cubic yards of dredged material as determined by the paragraph entitled "Example Economic Bin Load Calculations", dredged and hauled during a single dredging cycle which will yield, for the particular dredge, the maximum rate of removal of material from the project area and which will result in a minimum cost per cubic yard hauled. Once the economic load is achieved, the dredge shall discontinue pumping and proceed to the disposal area. Economic loading shall be determined using the average of the initial three complete cycles for each project assignment. These determinations shall be used to establish the operating procedures for the hopper dredge throughout the remainder of the assignment.

3.7.2 Production Rate Test

- a. Throughout the duration of the contract, the Government will monitor dredge performance. If there is an indication of a deficient dredge performance trend, the Government may perform a production rate test. The production rate test shall be conducted by the Government to determine the dredge's pumping rate and hopper capacity, which will be correlated to documented dredge-and-haul and agitation production rates

of the retired Government Dredge LANGFITT. The correlated dredge-and-haul and agitation production rates will be used for contractual pay adjustments.

b. Following the test, the contract may continue in force, with the hourly rate (Dredging or Option Dredging Payment Item) adjusted using the production rate test results in such a way that the total contract price will remain unchanged. The Contractor will be given written notice to that effect and the adjusted rate will become effective on the day and hour the test was completed, for tested production rates at or above the theoretical production rate. If the tested production rates are below the theoretical production rate, the Contractor will be notified that the adjusted rate will become effective on the day and hour that the test started. Payment for this pumping test will be made at the applicable hourly rate for dredging, in accordance with the paragraph entitled "Dredging and Option Dredging Items".

c. The latest tested production rates for the dredge will be used by the Government on future solicitations, to determine the quantities on the bidding schedules, whether this contract continues in force or not.

3.8 WORK FOR OTHERS

The dredge may be released from this contract for the convenience of the Contractor, upon approval of the Contracting Officer. The dredge shall remain on 72-hour call by the Contracting Officer during the release period. Regardless of the pay status of the dredge at the time it is released, the dredge will immediately go to a non-pay status, and remain so until it is recalled to work. Demobilization at the time of release, and mobilization at the time of recall, will not be paid. Payment will cease when the last load dumped prior to release if in the dredge-and-haul mode. If in the agitation mode, payment will cease when material stops flowing into the hopper. Payment will resume:

- a. If the dredge returns to an assignment in the same dredging region, when dredged material starts flowing into the hopper;
- b. If the dredge returns to an assignment in a different dredging region, when the plant enters the route between assignments that would have been taken had the dredge not been released; or
- c. If the dredge is already located at some point along the route between the previous and new assignments, upon departure for the new assignment.

3.9 PRODUCTION DATA TABLE

PRODUCTION DATA TABLE OF EMPIRICAL RAW WATER AND SEDIMENT DATA FOR NEW ORLEANS DISTRICT HOPPER DREDGING REGIONS

Dredging Region	Sediment Bulk Density (g/L)	Raw Water Density (g/L)	Sediment Specific Gravity (g/L)	D20 (mm)	D50 (mm)	D80 (mm)
Miss. River SW Pass and Jetty Channel	1598	1013	2720	0.0052	0.037	0.072
Miss. River South Pass	1642	1007	2673	0.0013	0.017	0.070
Miss. River Head of Passes	1923	1003	2640	0.0120	0.045	0.090
Miss. River Belmont Crossing	1968	1000	2680	0.1000	0.140	0.150
Miss. River Smoke Bend Crossing	1968	1000	2680	0.1000	0.140	0.150
Miss. River Philadelphia Crossing	1995	1000	2706	0.1167	0.137	0.167
Miss. River Alhambra Crossing	1995	1000	2663	0.1600	0.190	0.210
Miss. River Bayou Goula Crossing	1974	1000	2663	0.1600	0.180	0.220
Miss. River Granada Crossing	2019	1000	2652	0.1600	0.190	0.200
Miss. River Medora Crossing	2012	1000	2659	0.1400	0.170	0.200

Dredging Region	Sediment Bulk Density (g/L)	Raw Water Density (g/L)	Sediment Specific Gravity (g/L)	D20 (mm)	D50 (mm)	D80 (mm)
Miss. River Red Eye Crossing	1995	1000	2670	0.1600	0.190	0.230
Calcasieu River Bar Channel	1450	1025	2679	0.0014	0.045	0.110

3.10 LIST OF UTILITIES

3.10.1 Mississippi River & Southwest Pass

Utility Dia. (inches)	Approximate Station and/or Mile	Approximate Elevation (feet) MLLW	Owner and Telephone Number
10" Gas Pipeline (partially removed)	9.9 AHP	Unknown	Chevron Pipeline Co Attn: Land Team Lead South 1400 Smith St., 38114 Houston, TX 77002-7327 Steven Fontana 985-446-4658 SFontana@chevron.com Thomas August, Jr 713-372-9657 Thomas.August@chevron.com
(2) 24" Gas Pipelines	7.2 AHP	Unknown	Enbridge 4088 Hwy 56 Houma, LA 70363 Jerome Snyder Office: 985-876-6851 Cell: 985-209-9012 Jerome.Snyder@enbridge.com
10.75" Pipeline (Idle)	7.1 AHP	Unknown	Chevron Pipeline 34115 HWY 11 Buras, LA 70041 Keith Dore 504-861-5615 keithdore@chevron.com Todd Dore 985-773-6389 tdore@chevron.com
10" Pipeline (Abandoned)	7.0 AHP	Unknown	Chevron Pipeline Co Attn: Land Team Lead South 1400 Smith St., 38114 Houston, TX 77002-7327 Steven Fontana 985-446-4658 SFontana@chevron.com Thomas August, Jr 713-372-9657 Thomas.August@chevron.com

Utility Dia. (inches)	Approximate Station and/or Mile	Approximate Elevation (feet) MLLW	Owner and Telephone Number
6-5/8" Gas Pipeline	162+32 1.9 BHP	Unknown	Fieldwood Energy 2014 West Pinhook Rd, Suite 800 Lafayette, LA 70508 Trisha Hackett Office: 337-354-8015 Cell: 337-522-1977 trisha.hackett@fwellc.com Josh Benoit Office: 337-354-8096 Cell: 337-517-3212
20" Gas Pipeline	302+65 4.5 BHP	-83.5 ft.	Kinetica Partners, LLC 224 Aviation Road Houma, LA 70363 Chris Cantrelle Office: 985-223-6125 Cell: 985-665-0989 Chris.Cantrelle@Kineticallc.com
4", 6", & 8" Oil and Gas Pipeline Bundle	318+96 4.8 BHP	-90.5 ft.	Texas Petroleum Investment 101 La Rue France, Suite 406 Lafayette, La 70508 Chris Sanfilippo Office: 337-232-1702 Cell: 337-577-8465 csanfilippo@txpetinv.com Jeff Meaux 337-577-3992 jmeaux@txpetinv.com
(2) 16" Outflow Lines (Abandoned)	8.0 BHP	Unknown	Whitney Oil & Gas, LLC 920 Memorial City Way, Suite 200 Houston, TX 77024 Main No.: 832-786-7151 Annalisa Taylor 832-786-7164 Ataylor@whitneyoilco.com Russell Steiner 832-786-7163 Rsteiner@whitneyoilco.com

Utility Dia. (inches)	Approximate Station and/or Mile	Approximate Elevation (feet) MLLW	Owner and Telephone Number
8" Oil Pipeline	534+13 8.9 BHP	-93.5 ft.	Hilcorp/Harvest Pipeline 12317 Highway 90 East Jeanerette LA 70544 Mark Bordelon Office: 337-276-1263 Cell: 337-422-1343 mbordelon@hilcorp.com
36" Gas Pipeline	680+20 11.7 BHP	-81.5 ft.	Kinetica Partners, LLC (see above)

3.11 HOPPER DREDGE AND ATTENDANT PLANT DATA SHEET

Submittal Date:

HOPPER DREDGE AND ATTENDANT PLANT DATA SHEET (Version March 2016)

In compliance with the contract requirements to submit plant data and subject to all conditions thereof, the undersigned _____, a corporation/joint venture/individual (indicate appropriate status) organized and existing under the laws of the City of _____ and the State of _____, hereby correctly describes the Contractor's plant to the Government, which is performing work under the following named Contract _____ and Contract No.: _____.

Printed: _____ Signed: _____
Certifying Officer of the Contractor's Firm

Title: _____

One trailing suction type hopper dredge and attendant plant with the following characteristics (in English units of measurement):

1. DREDGE GENERAL INFORMATION:

(a) Bid lot number _____

(b) Dredge name _____ Dredge official number _____

(c) Owner name and address _____

(d) Minimum width of channel in which dredge can successfully operate and turn around, in feet _____

(e) Minimum depth of water in which dredge can operate with hoppers full _____

(f) Maximum draft of dredge _____

(g) Loaded freeboard _____

(h) Depth range to which dredge will dig
(Maximum) _____ (Minimum) _____

(i) Overall length of dredge hull _____

(j) Length and width of dragheads _____

(k) Hopper capacity, measured as volume below level of high overflow weir _____
(This item must agree with hopper size in bid lot used)

(l) Type(s) of production rate monitoring equipment on board the dredge (measuring cy/hr of material dredged) _____

(m) Hopper dredge bin dump mechanism: _____
(ex.: bottom door, split hull, etc.)

(n) Shallowest draft the dredge can dispose bin material while fully loaded: _____

(o) Completion date of each dredge pump engine re build: _____

(p) Agitation outlet dimension(s): _____

(q) Inside hopper outflow dimension(s): _____

2. DREDGING PUMPS AND PROPULSION: (Two propellers required)

(a) Number of pumps _____ Number of dragarms _____

(b) Inside diameter of dredge suction inlet _____
(This item must agree with the bid lot used)

(c) Inside diameter of pump discharge _____

(d) Brake horsepower and corresponding engine RPMs (during dredging operations) applied to each pump impeller at rated drive of the prime mover _____

(e) Maximum available brake horsepower and corresponding RPMs applied to each _____ propeller during dredging operations _____

(f) Number and power of bow thrusters: _____

(g) Length of suction and discharge lines _____

(h) Suction lift (Elevation of main dredge pump relative to the water surface level) _____

(i) Diameter of each pump impeller eye _____

(j) Number of Pump-Out pumps _____

(k) Inside diameter of Pump-Out suction inlet for each pump _____

(l) Inside diameter of Pump-Out discharge for each pump _____

(m) Brake horsepower and corresponding engine RPMs (during dredging operations) applied to each pump impeller at rated drive of the prime mover for Pump-Out _____

(n) Length of suction lines on dredge for Pump-Out _____

(o) Length of discharge lines on dredge for Pump-Out _____

(p) Total installed horsepower _____

3. ADDITIONAL REQUIRED EQUIPMENT (List type and model):

(a) Electronic positioning system _____

(b) Recording Depthsonder _____

(c) Radar _____

4. THE DREDGE MAY BE INSPECTED AT (List location of equipment):

5. CREW BOAT:

(a) Length and beam _____

(b) Owner, name and address _____

(c) Total horsepower _____

(d) VHF FM marine radio type and model _____

(e) Radar type and model _____

(f) The crewboat may be inspected at the following location _____

(g) Electronic positioning equipment _____

(h) Recording depthsonder _____

6. REQUIRED SUBMITTAL: Hopper dredge ullage tables showing bin volume filled as a function of vessel draft

7. DREDGE OWNER INFORMATION:

Firm name _____

Point of contact _____

Title _____

Business address _____

Street _____

City _____

Parish/County _____

State _____ Zip+4 _____

Telephone no. (_____) _____

Facsimile no. (_____) _____

(Additional signature block to be used for joint venture partner(s))

Firm name _____

Point of contact _____

Title _____

Business address _____

Street _____

City _____

Parish/County _____

State _____ Zip+4 _____

Telephone no. (_____) _____

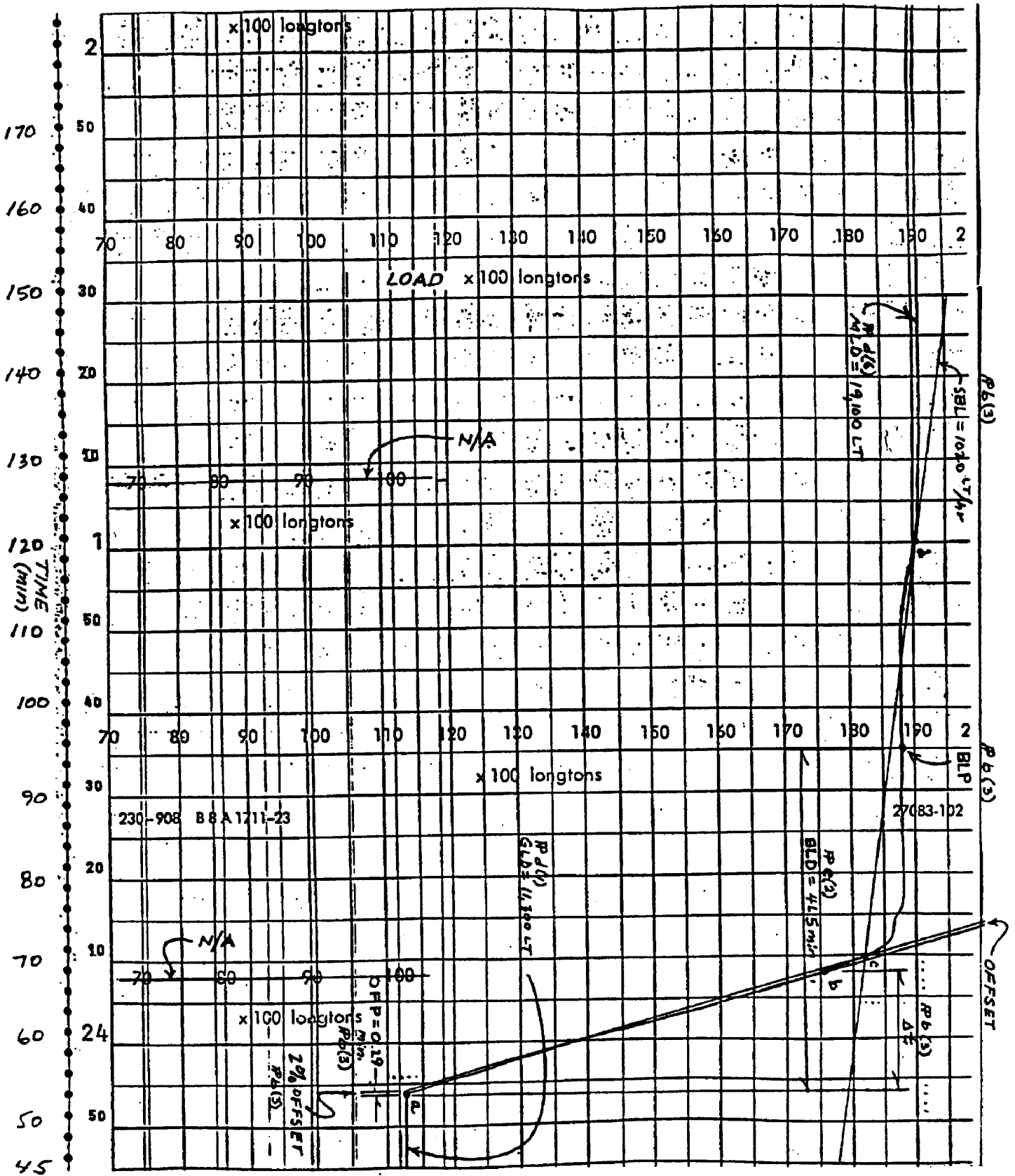
Facsimile no. (_____) _____

DAILY REPORT OF OPERATIONS -- HOPPER DREDGES					REPORTS CONTROL SYMBOL ENG-CWO-13	
DISTRICT					DREDGE	
EXACT LOCATION OF WORK				<input type="checkbox"/> MAINTENANCE		DATE
				<input type="checkbox"/> NEW WORK		NUMBER OF PERSONS IN CREW
AV. LENGTH OF CUT	FT.	CHARACTER OF MATERIAL			HOPPER CAPACITY	CU. YDS.
AV. WIDTH OF CUT	FT.	DENSITY OF MAT. IN PLACE	GMS/LITER		AV. VOL. OF BIN WATER	CU. YDS.
AV. DIST. TO DUMP	MILES	DENSITY OF WATER	GMS/LITER AT	°F	AV. UNFILLED CAPACITY	CU. YDS.
NAVIGATION AND OTHER DREDGING AIDS (Describe and include statement on adequacy and recommendations)						
WORK PERFORMED					DRAFT FOR LOAD NO. (for one load only)	
DREDGING AND HAULING				AGITATING		
NO. OF LOADS	TOT. CU. YDS.	DISPOSAL AREA		TOT. CU. YDS.	FORWARD	LIGHT
					AFT	LOADED
					DRAG DEPTH	
					MAX.	MIN.
					INDICATORS LAST CHECKED ON	
					GAS EJECTORS USED	
					% OF PUMPING TIME	
DISTRIBUTION OF TIME AND MILES RUN						
		AGITATING <i>(Minutes)</i>		DREDGING AND HAULING <i>(Minutes)</i>		MILES RUN <i>(Stat. Miles)</i>
EFFECTIVE WORKING TIME						
PUMPING						
TURNING						
TO DUMP						
DUMPING						
TO CUT						
TOTALS						
NON-EFFECTIVE WORKING TIME						
TAKING ON FUEL AND SUPPLIES						
TO AND FROM WHARF OR ANCHORAGE						
LOSS DUE TO NATURAL ELEMENTS						
LOSS DUE TO TRAFFIC AND BRIDGES						
MINOR OPERATING REPAIRS						
TRANSFERRING BETWEEN WORKS						
LAY TIME						
FIRE AND BOAT DRILLS						
MISCELLANEOUS						
TOTALS						
LOST TIME						
MAJOR REPAIRS AND ALTERATIONS						
CESSATION						
COLLISIONS						
TOTAL LOST TIME						
TOTAL TIME IN PERIOD						
AVERAGE SPEED OF DREDGE				MINUTES RADAR IN USE		
		FEET/MINUTE		TIDE DATA WAS OBTAINED BY MEANS OF		
LOADING				WEATHER		
AGITATING				NUMBER OF INSPECTIONS BY SUPERVISORY PERSONNEL		
GALS. OF FUEL OIL CONSUMED				FIELD		OFFICE
GALS. OF WATER CONSUMED						
REMARKS						
SUBMITTED BY						

(SEE REVERSE SIDE)

BREAKDOWN OF LOADS DREDGED AND HAULED													DATE						
LOAD	DREDGER	TIME PUMP		MINUTES					CUBIC YARDS RETAINED (In terms of in place material)					MID-DEPTH SAMPLES					
		STARTED	STOPPED	PUMPING	TURNING	TOTAL	DREDGING	TOTAL	TOTAL	SOLIDS	SOLIDS	BIN WATER SOLIDS	TOTAL	DREDGED	DREDGED	SETTLED	% SOLIDS (in place)	MATE AND DRAGTENDERS	
AVERAGE																			
ECONOMIC LOAD DATA																			
PUMPING TIME (Minutes)				ECONOMIC LOAD (Cu Yds)					TEST LOAD NO.					DATE OF TEST					
REMARKS																			
NOTE: * WHEN LOAD IS DREDGED WITH HOPPERS UNWATERED, INDICATE BY LETTER "U". ** TOTAL CUBIC YARDS RETAINED = SETTLED SOLIDS + SUSPENDED SOLIDS - BIN WATER SOLIDS OR DETERMINED DIRECTLY BY YARDAGE METER. *** NOT NECESSARY WHEN MEASURING LOAD BY YARDAGE METER.																			

EXAMPLE LOAD DISPLACEMENT CHART



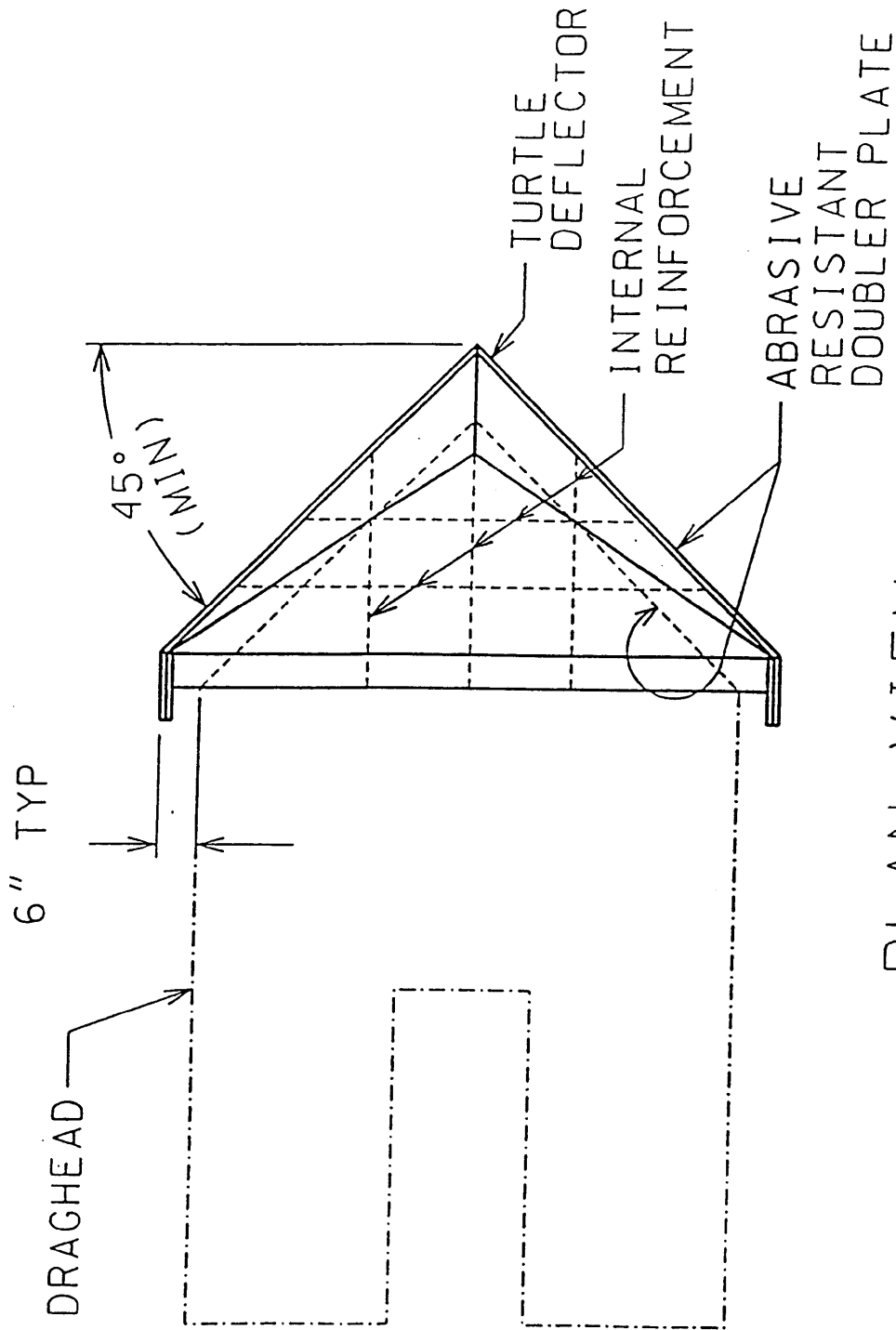
ECONOMIC BIN LOAD CHART

UNITS	Pump Time																								
	5 min	10 min	15 min	20 min	25 min	30 min	35 min	40 min	45 min	50 min	55 min	60 min	65 min	70 min	75 min	80 min	85 min	90 min	95 min	100 min	105 min	110 min	115 min	120 min	124 min
Raw Water Density (RWD):	g/L	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013	1,013
Sediment Bulk Density (SBD):	g/L	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598
Gross Light Displacement (GLD):	LT	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740	5,740
Material Loaded Displacement (MLD):	LT	8,125	9,800	10,030	10,070	10,125	10,310	10,390	10,550	10,645	10,716	10,659	10,690	10,760	10,557	10,680	10,736	10,760	10,705	10,720	10,679	10,782	10,687	10,760	10,705
Dredged Slurry Volume (DSV):	cy	3.100	5.150	5.235	5.225	5.212	5.227	5.230	5.202	5.218	5.223	5.090	5.012	4.953	4.916	4.970	4.887	4.760	4.686	4.620	4.510	4.412	4.253	4.240	4.159
Bin Water Volume (BWV):	cy	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31	105.31
Residual Bin Water Weight (BWWT):	LT	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Corrected Light Displacement (CLD):	LT	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660	5,660
Net Bin Load (NBL):	LT	2,465	4,140	4,270	4,370	4,410	4,465	4,650	4,890	4,985	5,056	4,999	5,030	5,100	4,897	5,020	5,076	5,100	5,045	5,060	5,019	5,122	5,027	5,100	5,045
Average Bin Density (ABD):	g/L	1,057	1,068	1,084	1,111	1,124	1,136	1,182	1,249	1,270	1,286	1,305	1,334	1,368	1,324	1,342	1,377	1,424	1,431	1,455	1,479	1,543	1,571	1,598	1,612
Bin Solids Ratio (BSR):		0.0762	0.094	0.1214	0.1675	0.1897	0.2103	0.2889	0.3231	0.4034	0.4393	0.4991	0.5487	0.6068	0.5316	0.5624	0.6222	0.7026	0.7145	0.7556	0.7966	0.906	0.9538	1	1.0239
Bin Load Quantity (BLQ):	cy	233	484	636	875	989	1,099	1,510	1,690	2,292	2,438	2,540	2,750	3,005	2,613	2,795	3,047	3,344	3,348	3,491	3,593	3,997	4,057	4,240	4,258
Minutes Per Load	min.	50	55	60	65	70	75	80	85	90	100	105	110	115	120	125	130	135	140	145	150	155	160	165	169
Number of loads obtained in 1 hour	ea.	1.200	1.091	1.000	0.923	0.857	0.800	0.750	0.706	0.667	0.632	0.600	0.545	0.522	0.500	0.480	0.462	0.444	0.429	0.414	0.400	0.387	0.375	0.364	0.355
Number of loads obtained in 24 hours	ea.	28,800	26,182	24,000	22,154	20,571	19,200	18,000	16,941	16,000	15,158	14,400	13,714	13,091	12,522	12,000	11,520	11,077	10,667	10,286	9,931	9,600	9,000	8,727	8,521
Total cy for one day	cy	6,710	12,672	15,264	19,385	20,345	21,101	27,180	28,631	33,568	34,742	35,107	34,834	36,000	37,628	31,356	32,198	33,751	35,069	34,437	34,669	34,493	37,133	36,513	37,004
Total cy/hr	cy/hr	280	528	636	808	848	879	1,133	1,193	1,399	1,448	1,463	1,451	1,500	1,568	1,307	1,342	1,406	1,486	1,445	1,437	1,547	1,521	1,542	1,512

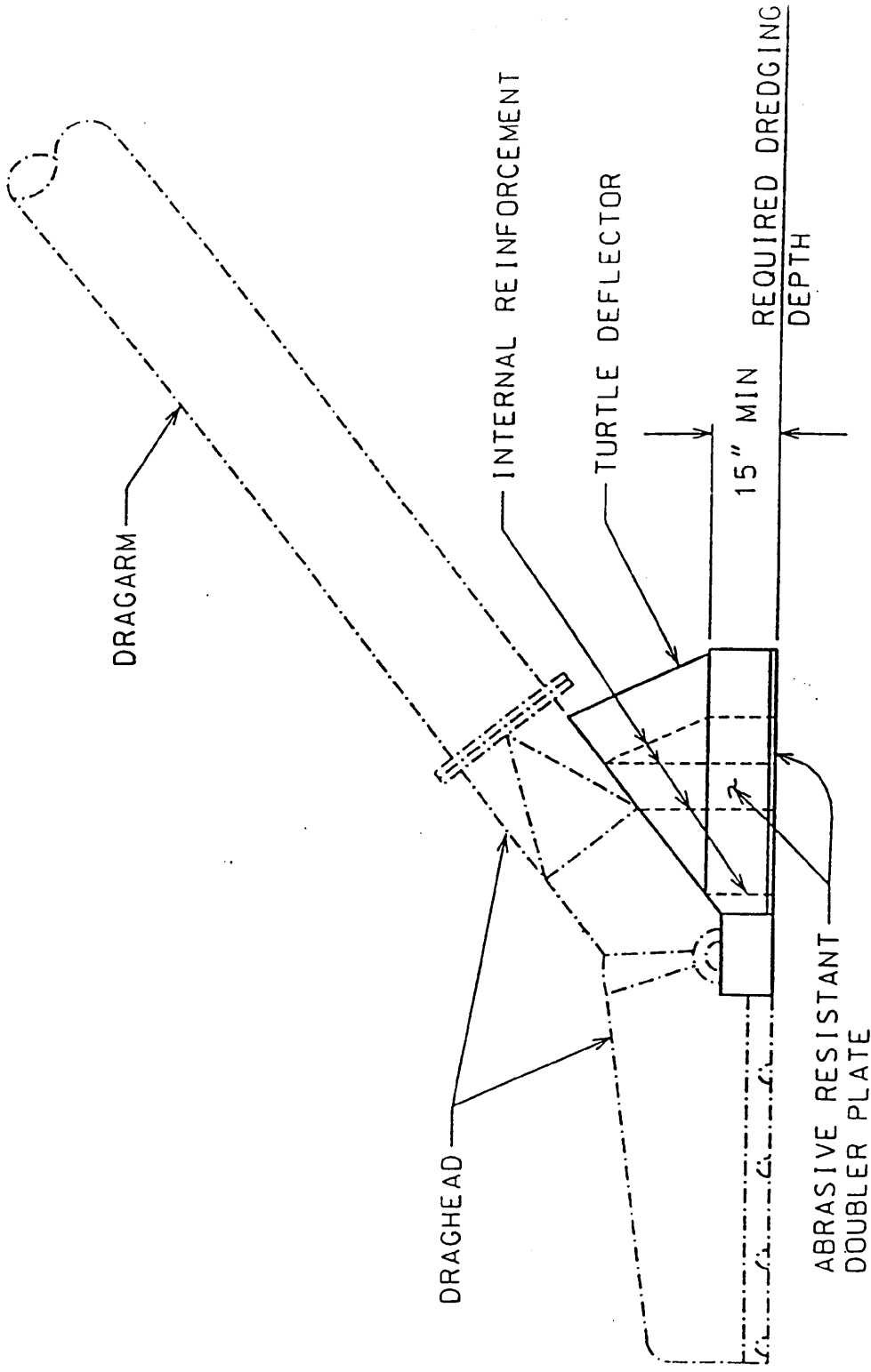
MOBILE DISTRICT - HISTORICAL DREDGE & HAUL RATES

FOR INFORMATION ONLY

Non-Turbocharged 27 INCH 3,600 CY	Turbocharged 27 INCH 3,600 CY	27 INCH 3,700 CY	24 INCH 4,000 CY	28 INCH 4,350 CY	28 INCH 4,000 CY	33.5 INCH 6,300 CY	33.5 INCH 9,500 CY	30 INCH 4,815 CY	PUMP DISCHARGE DIAMETER HOPPER SIZE
2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	Gross Yardage
3,600	3,600	4,000	4,000	4,387	4,000	6,400	11,147	4,830	Hopper Capacity
2160	2160	2400	2400	2632.2	2400	3840	6688.2	2898	60% Load
26.6	26.6	26.6	26.6	26.6	26.6	26.96	27.32	26.6	Haul Distance
9.87	10.56	9.19	9.45	12.7	12.26	10.89	11.44	10.34	MPH Loaded
10.97	11.97	10.54	10.66	13.06	12.42	11.88	12.78	12.54	MPH Light
2.70	2.52	2.89	2.81	2.09	2.17	2.48	2.39	2.57	Travel Time to Dump
2.42	2.22	2.52	2.50	2.04	2.14	2.27	2.14	2.12	Travel Time to Cut
0.5	0.5	0.5	0.5	0.83	0.5	0.5	0.5	0.5	Pump, turn, dump time
5.62	5.24	5.92	5.81	4.96	4.81	5.25	5.03	5.19	Total Cycle time
1041.67	1041.67	937.50	937.50	854.80	937.50	585.94	336.41	776.40	Number of cycles
5853.99	5459.54	5548.28	5446.99	4240.86	4510.65	3073.26	1690.76	4032.41	Total Hours
6035	5628	5720	5615	4372	4650	3168	1743	4157	97% efficiency Hours
264	246	250	246	191	203	139	76	182	Job time in days + 5%



PLAN VIEW
 RIGID TURTLE DEFLECTOR
 SCALE: NONE



ELEVATION
 RIGID TURTLE DEFLECTOR
 SCALE: NONE

Contract Number: 05-C-XXXX

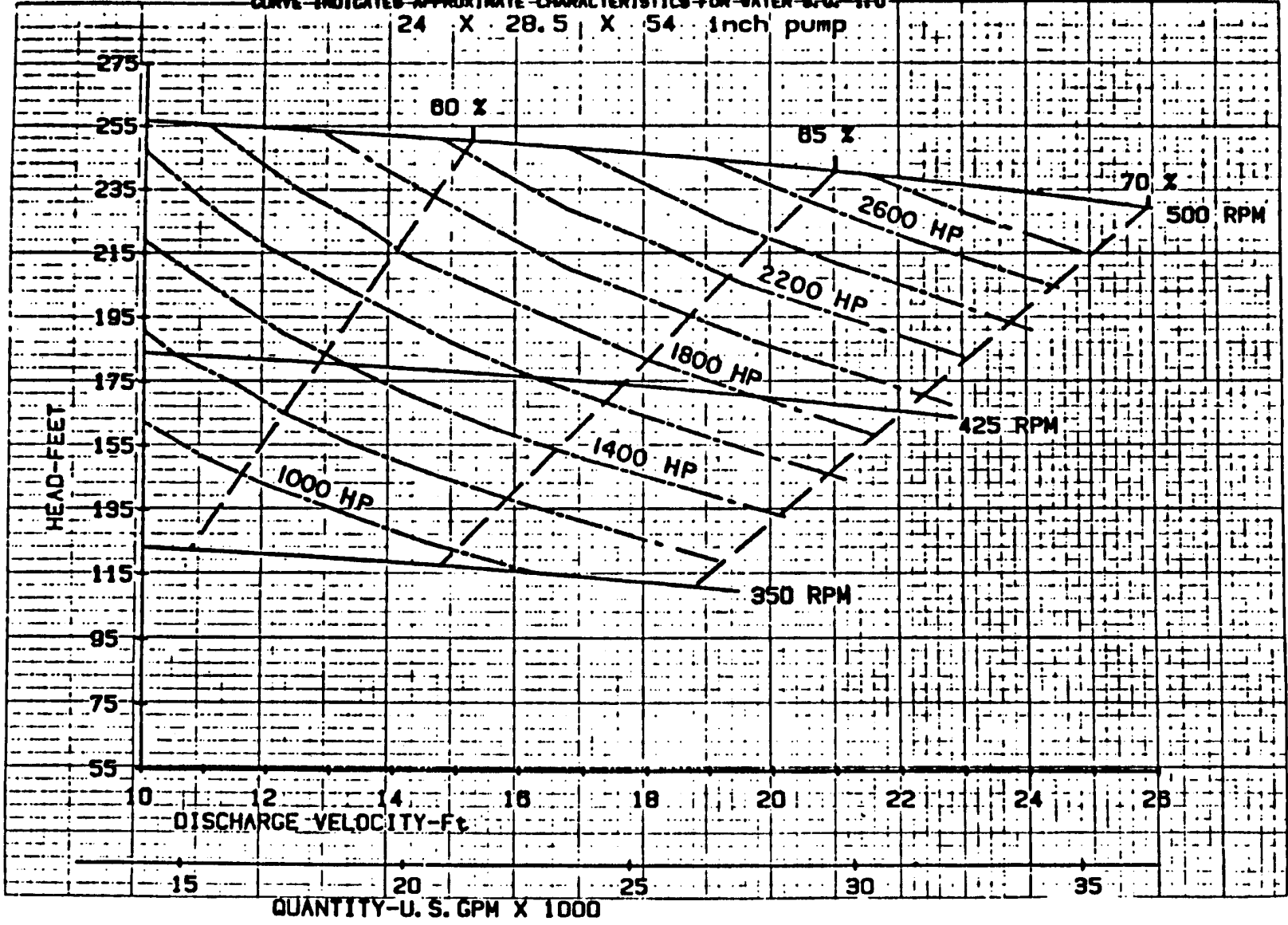
Dredge Name: _____

Pump Function: (main, ladder, or booster, etc.)

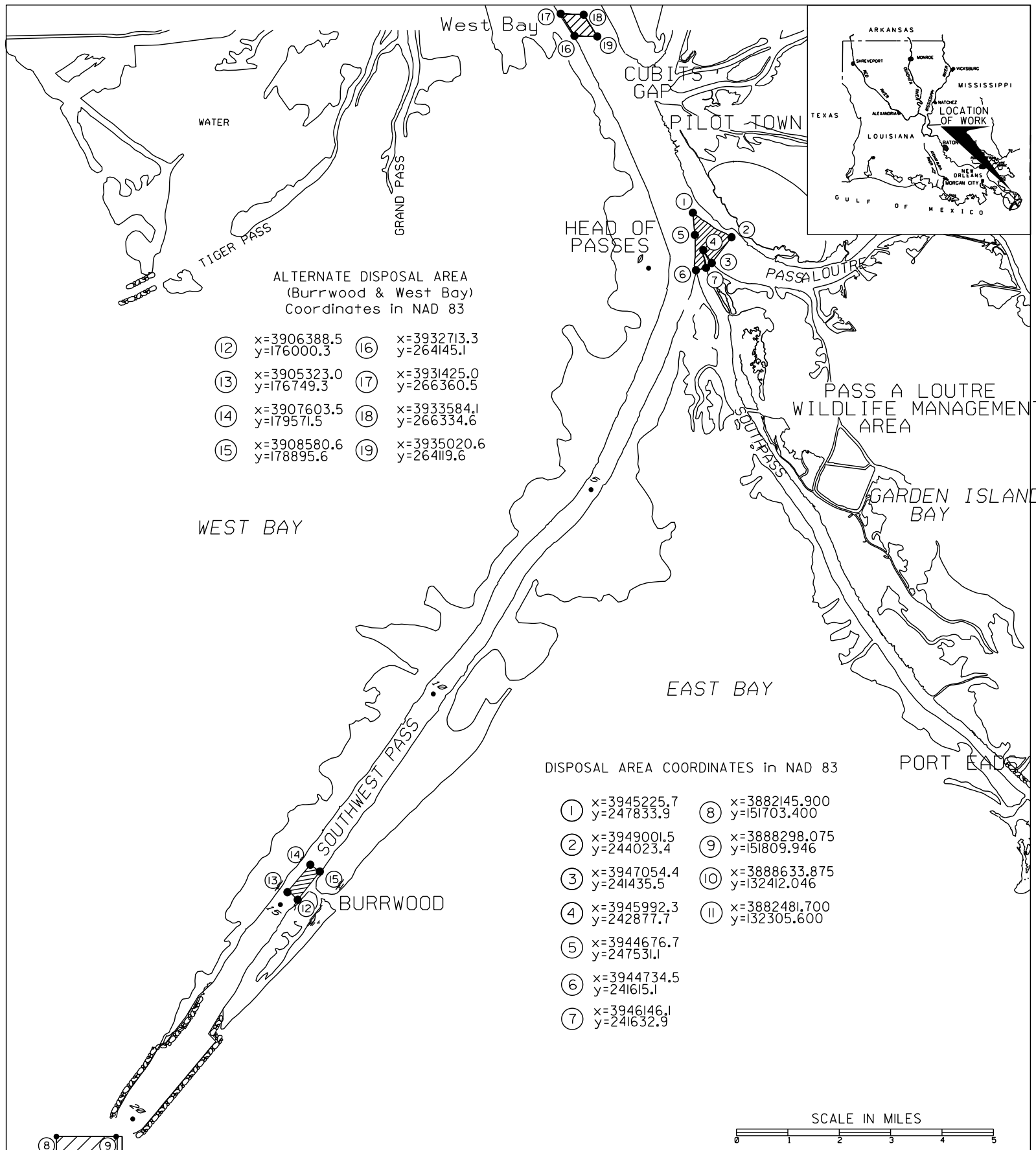
MANUFACTURER'S PERFORMANCE CURVE

CURVE INDICATES APPROXIMATE CHARACTERISTICS FOR WATER S.G. 1.0

24 X 28.5 X 54 inch pump



SAMPLE

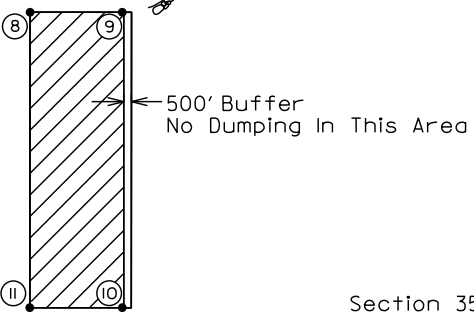


ALTERNATE DISPOSAL AREA
(Burrwood & West Bay)
Coordinates in NAD 83

⑫	x=3906388.5 y=176000.3	⑮	x=3908580.6 y=178895.6
⑬	x=3905323.0 y=176749.3	⑯	x=3932713.3 y=264145.1
⑭	x=3907603.5 y=179571.5	⑰	x=3931425.0 y=266360.5
		⑱	x=3933584.1 y=266334.6
			x=3935020.6 y=264119.6

DISPOSAL AREA COORDINATES in NAD 83

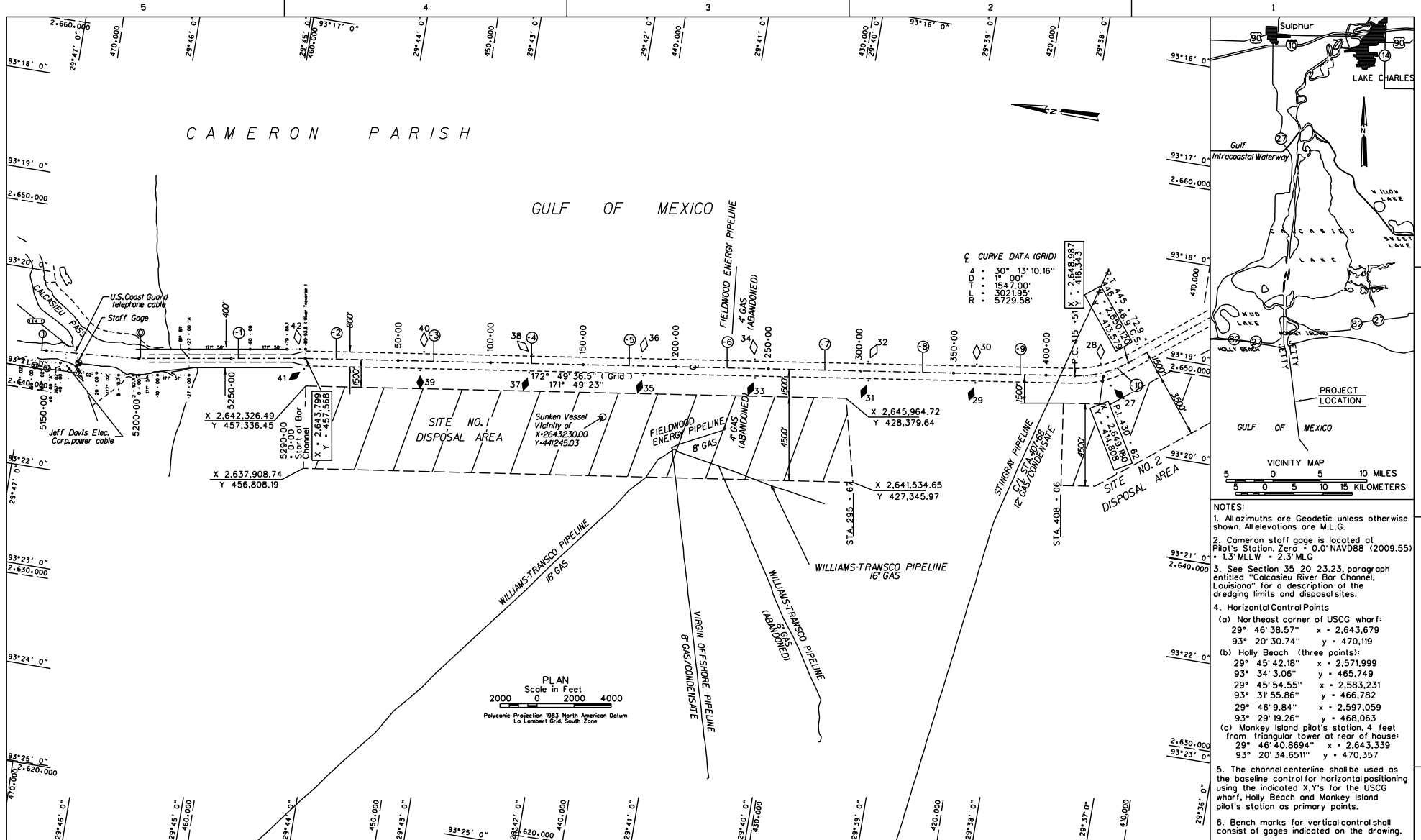
①	x=3945225.7 y=247833.9	⑧	x=3882145.900 y=151703.400
②	x=3949001.5 y=244023.4	⑨	x=3888298.075 y=151809.946
③	x=3947054.4 y=241435.5	⑩	x=3888633.875 y=132412.046
④	x=3945992.3 y=242877.7	⑪	x=3882481.700 y=132305.600
⑤	x=3944676.7 y=247531.1		
⑥	x=3944734.5 y=241615.1		
⑦	x=3946146.1 y=241632.9		



Southwest Pass & Mississippi River
HOPPER DISPOSAL AREAS
Plaquemines Parish, Louisiana

CAMERON PARISH

GULF OF MEXICO



- NOTES:
- All azimuths are Geodetic unless otherwise shown. All elevations are M.L.G.
 - Cameron staff gage is located at Pilot's Station. Zero = 0.0' NAVD88 (2009.55) + 1.3' MLLW + 2.3' MLG
 - See Section 35 20 23.23, paragraph entitled "Calcasieu River Bar Channel, Louisiana" for a description of the dredging limits and disposal sites.
 - Horizontal Control Points
 - Northeast corner of USCG wharf: 29° 46' 38.57" x = 2,643,679 93° 20' 30.74" y = 470,119
 - Holly Beach (three points): 29° 45' 42.18" x = 2,571,999 93° 34' 3.06" y = 465,749 29° 45' 54.55" x = 2,583,231 93° 31' 55.86" y = 466,782 29° 46' 9.84" x = 2,597,059 93° 29' 19.26" y = 468,063
 - Monkey Island pilot's station, 4 feet from triangular tower at rear of house: 29° 46' 40.8694" x = 2,643,339 93° 20' 34.6511" y = 470,357
 - The channel centerline shall be used as the baseline control for horizontal positioning using the indicated X,Y's for the USCG wharf, Holly Beach and Monkey Island pilot's station as primary points.
 - Bench marks for vertical control shall consist of gages indicated on the drawing.

CALCASIEU RIVER AND PASS
 MAINTENANCE DREDGING
 BAR CHANNEL HOPPER DREDGE RENTAL
 CAMERON PARISH, LOUISIANA



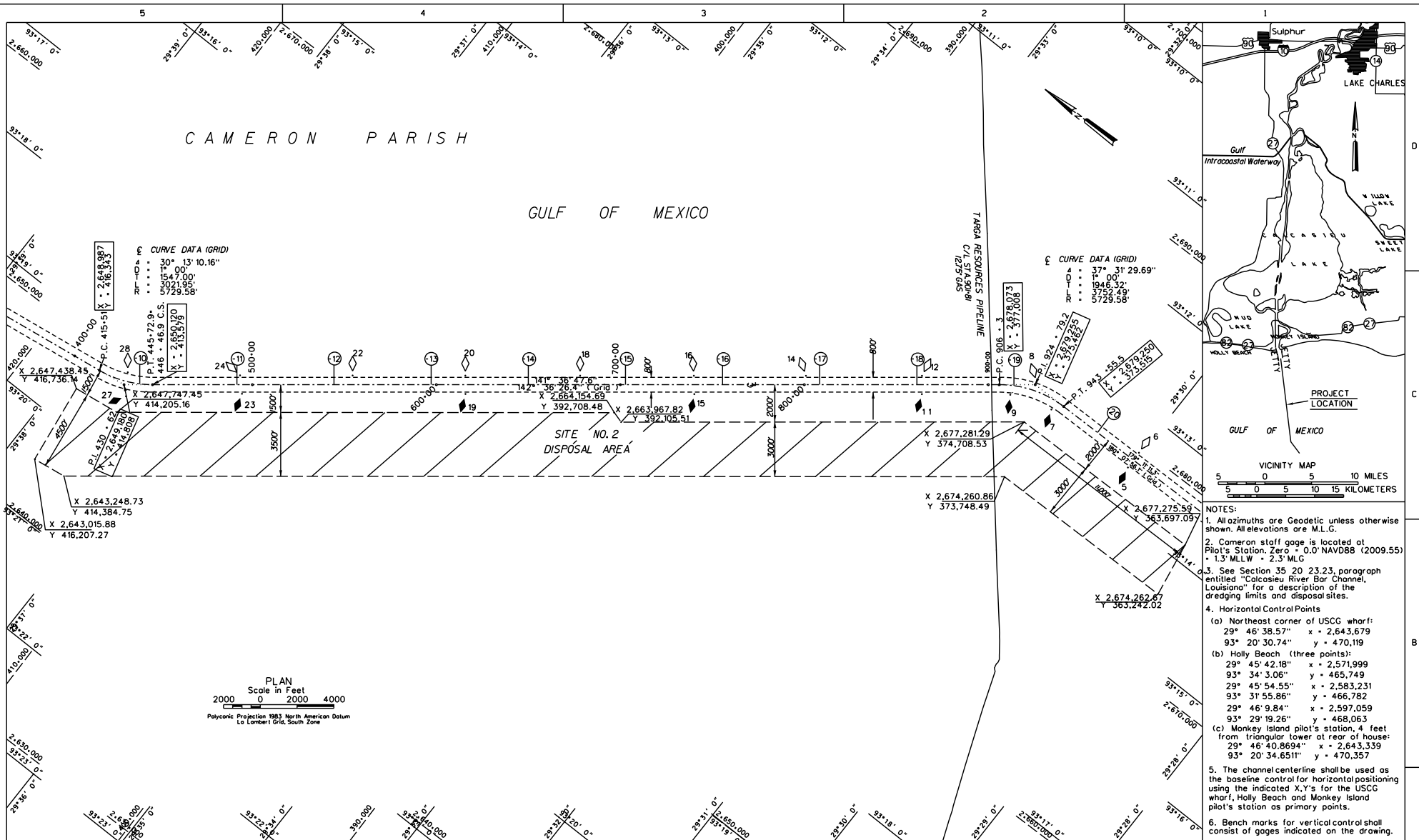
Safety is a Part of Your Contract



- LEGEND
- MILEAGE
 - BUOY
 - STAFF GAGE
 - ▨ DISPOSAL AREA

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 NEW ORLEANS, LOUISIANA

PLATE 1 OF 3



PLAN
Scale in Feet
2000 0 2000 4000
Polyconic Projection 1983 North American Datum
La Lambert Grid, South Zone

- NOTES:
- All azimuths are Geodetic unless otherwise shown. All elevations are M.L.G.
 - Cameron staff gage is located at Pilot's Station. Zero = 0.0' NAVD88 (2009.55) + 1.3' MLLW + 2.3' MLG
 - See Section 35 20 23.23, paragraph entitled "Calcasieu River Bar Channel, Louisiana" for a description of the dredging limits and disposal sites.
 - Horizontal Control Points
 - Northeast corner of USCG wharf:
29° 46' 38.57" x = 2,643,679
93° 20' 30.74" y = 470,119
 - Holly Beach (three points):
29° 45' 42.18" x = 2,571,999
93° 34' 3.06" y = 465,749
29° 45' 54.55" x = 2,583,231
93° 31' 55.86" y = 466,782
29° 46' 9.84" x = 2,597,059
93° 29' 19.26" y = 468,063
 - Monkey Island pilot's station, 4 feet from triangular tower at rear of house:
29° 46' 40.8694" x = 2,643,339
93° 20' 34.6511" y = 470,357
 - The channel centerline shall be used as the baseline control for horizontal positioning using the indicated X,Y's for the USCG wharf, Holly Beach and Monkey Island pilot's station as primary points.
 - Bench marks for vertical control shall consist of gages indicated on the drawing.

CALCASIEU RIVER AND PASS
MAINTENANCE DREDGING
BAR CHANNEL HOPPER DREDGE RENTAL
CAMERON PARISH, LOUISIANA



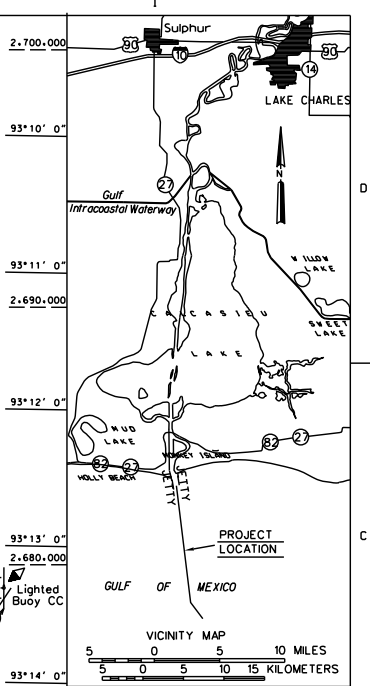
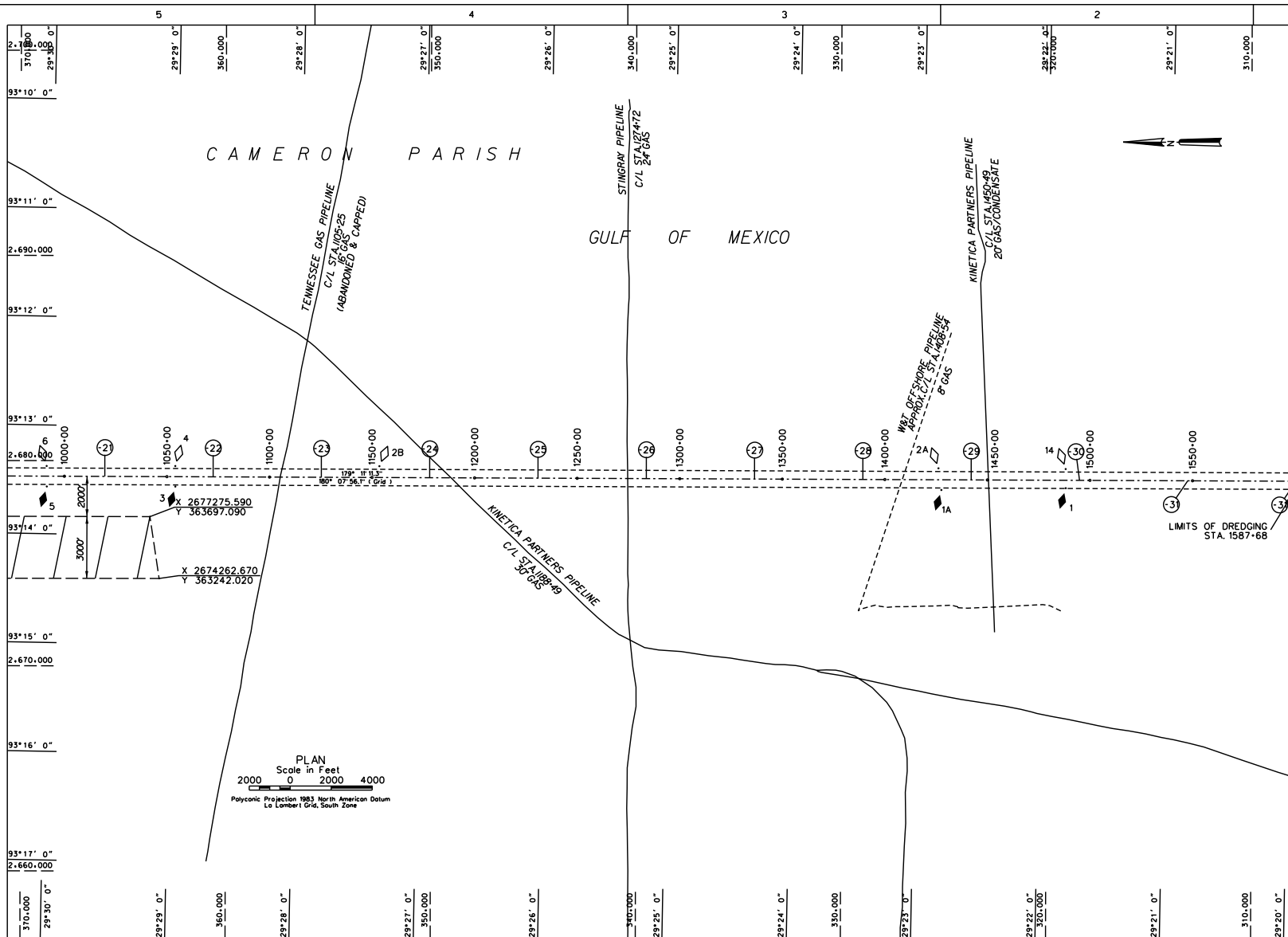
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- LEGEND
- MILEAGE
 - BUOY
 - STAFF GAGE
 - ▨ DISPOSAL AREA

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

PLATE 2 OF 3



- NOTES:**
- All azimuths are Geodetic unless otherwise shown. All elevations are M.L.G.
 - Cameron staff gage is located at Pilot's Station. Zero = 0.0' NAVD88 (2009.55) + 1.3' MLLW + 2.3' MLG
 - See Section 35 20 23.23, paragraph entitled "Calcasieu River Bar Channel, Louisiana" for a description of the dredging limits and disposal sites.
 - Horizontal Control Points
 - Northwest corner of USCG wharf: 29° 46' 38.57" x = 2,643,679 93° 20' 30.74" y = 470,119
 - Holly Beach (three points): 29° 45' 42.18" x = 2,571,999 93° 34' 3.06" y = 465,749 29° 45' 54.55" x = 2,583,231 93° 31' 55.86" y = 466,782 29° 46' 9.84" x = 2,597,059 93° 29' 19.26" y = 468,063
 - Monkey Island pilot's station, 4 feet from triangular lower of rear of house: 29° 46' 40.8694" x = 2,643,339 93° 20' 34.6511" y = 470,357
 - The channel centerline shall be used as the baseline control for horizontal positioning using the indicated X,Y's for the USCG wharf, Holly Beach and Monkey Island pilot's station as primary points.
 - Bench marks for vertical control shall consist of gages indicated on the drawing.

CALCASIEU RIVER AND PASS
 MAINTENANCE DREDGING
 BAR CHANNEL HOPPER DREDGE RENTAL
 CAMERON PARISH, LOUISIANA

- LEGEND**
- MILEAGE
 - BUOY
 - STAFF GAGE
 - ▨ DISPOSAL AREA

U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS
 CORPS OF ENGINEERS
 NEW ORLEANS, LOUISIANA

PLATE 3 OF 3



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-- End of Section Table of Contents --

SECTION 35 20 23.26

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM
HOPPER DREDGE

PART 1 GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the National Dredging Quality Management Program (DQM) to monitor the dredge's status at all times during the contract and to manage data history.

This performance-based specification section identifies the minimum required output and the precision and instrumentation requirements. The requirements may be satisfied using equipment and technical procedures selected by the Contractor.

1.2 PAYMENT

No separate payment shall be made for installation, operation, and maintenance of the DQM-certified system as specified herein for the duration of the dredging operations; all costs in connection therewith shall be considered a subsidiary obligation of the Contractor and covered under the contract unit prices for "Dredging" and "Option Dredging" in the bidding schedule.

1.3 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor is required to have a current certification from DQM for the hopper dredge instrumentation system to be used under this contract. Criteria for certification shall be based on the most recent specification posted on the DQM website (<http://dqm.usace.army.mil/Specifications/Index.aspx>). Compliance with these criteria shall be verified by annual onsite quality assurance (QA) checks conducted by the DQM Support Center Data Acquisition and Analysis Team and by periodic review of the transmitted data. DQM Certification is valid for one year from the date of the annual QA checks. Certification is contingent upon the system's ability to continuously meet the performance requirements as outlined in the paragraph entitled "Performance Requirements," and the paragraph entitled "Contractor Quality Control." If issues with data quality are not corrected within 48 hours, the system certification shall be revoked and additional QA checks by the Data Acquisition and Analysis Team may be necessary.

Annual DQM Certification shall be based on the following:

- A series of quality assurance checks as described in the paragraph entitled "Compliance Quality Assurance Checks"
- Verification of data acquisition and transfer as described in the paragraph entitled "Performance Requirements"
- Review of the Dredge Plant Instrumentation Plan (DPIP) as described

in the paragraph entitled "Dredge Plant Instrumentation Plan (DPIP)"

The Contractor shall have personnel who are familiar with the system instrumentation and who have the ability to recalibrate the sensors on site during the QA process. The Contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM system to team personnel in a timely manner. As a general rule, Data Acquisition and Analysis Team personnel will come with PPE consisting of hardhats, steel toe boots, and life jackets. If additional safety equipment is needed - such as eye protection, safety harnesses, work gloves or personal location beacons - these items shall be provided to the team while on site. It is the Contractor's obligation to inform the QA team if the location designated for the QA checks has any site-specific safety concerns prior to their arrival on site.

The owner or operator of the dredge shall contact DQM at DQM-AnnualQA@rpsgroup.com on an annual basis, or at least three weeks prior to certification expiration, to schedule QA checks for renewal. This notification is meant to make the Data Acquisition and Analysis Team aware of a target date for the annual QA checks for the dredge. At least one week prior to the target date, the Contractor shall contact the Data Acquisition and Analysis Team and verbally coordinate a specific date and location. The Contractor shall then follow up this conversation with a written email confirmation. The owner/operator shall coordinate the QA checks with all local authorities, including but not limited to, the local USACE Contracting Officer's Representative (COR).

Recertification is required for any yard work which produces modification to displacement (change in dredge lines, or repositioning or repainting hull marks), modification to bin volume (change in bin dimensions, or addition or subtraction of structure), or changes in sensor type or location; these changes shall be reported in the sensor log section of the DPIP. A system does not have to be transmitting data between jobs; however, in order to retain its certification during this period, the system sensors or hardware should not be disconnected or removed from the dredge. If the system is powered down, calibration coefficients shall be retained.

1.4 DREDGE PLANT INSTRUMENTATION PLAN (DPIP)

The Contractor shall have a digital copy of the DPIP on file with the DQM Support Center. While working on site, the Contractor shall also maintain on the dredge a copy of the DPIP which is easily accessible to Government personnel at all times. This document shall describe the sensors used, configuration of the system, how sensor data will be collected, how quality control on the data will be performed, and how sensors/data reporting equipment will be calibrated and repaired if they fail. A description of the computed dredge-specific data and how the sensor data will be transmitted to the DQM database will also be included. The Contractor shall submit to the DQM Support Center any addendum or modifications made to the plan, subsequent to its original submission, prior to the start of work.

The DPIP shall include the following as a minimum:

(The DPIP must have a Table of Contents in the following order and tabs separating sections.)

Cover Page

- Dredge name
- Date
- Photo of plant

Table of Contents

New Page

- Dredge contacts

Dredging company

- Dredge point of contact on site
- Phone number
- Email address

Dredge monitoring system provider

- Dredge monitoring system point of contact
- Telephone number
- Email address

New Page

- Table of dredge characteristics

- Dimensions of the dredge
- Dimensions of the hopper
- Method of disposal
- Capacity
- Minimum and maximum digging depth
- Minimum and maximum drafts and displacements
- RPM and velocity range
- IDs of the suction and discharge pipes

New Page

- Sensor data collection method

- Any averaging
- Route from the sensor to the DQM computer
- Internet connection type and provider

- Sensor descriptions, locations, and calibration methods

Positioning system

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions

Dredge heading instrumentation

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation

Hull status

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions
- Calibration procedure

Draft

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions
- Calibration procedure

Ullage

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions
- Calibration procedure

Dragarm depths

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions
- Calibration procedure

Density

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions including pipe diameter
- Calibration procedure

Velocity

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions including pipe diameter
- Calibration procedure

Pump RPM

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions
- Calibration procedure

Pumpout (if instrumented)

- Brand name, model, and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions
- Calibration procedure

- Calculated parameters

Displacement

- Method used by the Contractor to calculate displacement
- Tables listing (fresh and salt water) displacement as a function of draft in feet and tenths of feet

Hopper volume

- Method used by the Contractor to calculate the hopper volume
- Table listing the hopper volume as a function of hopper ullage in feet and tenths of feet
- Description of the datum for ullage sounding measurements

Draghead position

- Method used by the Contractor to calculate the draghead position

Load number

- Method used to increment the load number

- Quality control

- Description of the Contractor's quality control process
- Log of sensor calibrations, repairs, and modifications

- Appendices

Hydrostatic curves

Certified displacement and volume tables

Legible dimensioned drawings of the dredge with units in feet

- Typical plan of the dredge showing the following:
 - Overall dredge and hopper dimensions
 - Locations of the required sensors referenced to uniform longitudinal and transverse reference points
 - Distance between the draft sensors
 - Distance between the ullage sensors
 - Dimensions of the dragarm
- Profile view of the dredge showing the following:
 - Overall dredge and hopper dimensions
 - Distance between the draft sensors and the draftmarks
 - Locations of the required sensors, referenced to uniform vertical and longitudinal reference points
- Typical vessel cross section through the hopper

Sensor manuals and certificates of calibration

Any changes to the computation methods shall be approved by the DQM Support Center prior to their implementation.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 REQUIREMENTS FOR REPORTED DATA

The Contractor shall provide, operate, and maintain all hardware and software to meet these specifications. The Contractor shall be responsible for replacement, repair, and calibration of sensors and other necessary

data acquisition equipment needed to supply the required data.

Repairs shall be completed within 48 hours of any sensor failure. Upon completion of a repair, replacement, installation, modification, or calibration, the Contractor shall notify the COR. The COR may request recalibration of sensors or other hardware components at any time during the contract as deemed necessary.

The Contractor shall keep a log of sensor repair, replacement, installation, modification, and calibration in the dredge's onboard copy of the DPIP. The log shall contain a three-year history of sensor maintenance, including the time of the sensor failures (and subsequent repairs), the time and results of sensor calibrations, the time of sensor replacements, and the time that backup sensor systems were initiated to provide required data. It shall also contain the name of the person responsible for the sensor work.

Sensors installed shall be capable of collecting parameters within specified accuracies and resolutions indicated in the following subparagraphs.

Reported sensor values for ullage, draft, and draghead depth should represent a weighted average with the highest and lowest values not included in the calculated average for the given interval. This information should be documented in the DPIP sections that say "Calculations done external to the instrumentation."

3.1.1.1 Date and Time

The date and time shall be reported to the nearest second and referenced to UTC time based on a 24-hour format: mm/dd/yyyy hh:mm:ss. The reported time shall be the time reported by the GPS in the NMEA string.

3.1.1.2 Load Number

A load number shall document the end of a disposal event. Load numbering will begin at number 1 at the start of the contract and will be incremented by 1 at the completion of each disposal event or emptying of the hopper. Whenever possible, the load number shall be calculated off of the sensors aboard the dredge and shall be a mathematically repeatable routine. Efforts shall be made to include logic that avoids false load number increments while also not allowing the routine to miss any disposal event. If manual incrementing of the load number is in place, extra attention shall be paid to this value in the Contractor's quality control process (paragraph entitled "Contractor Quality Control").

3.1.1.3 Horizontal Positioning

All locations shall be obtained using a positioning system operating with a minimum accuracy level of 1 to 3 meters horizontal Circular Error Probable (CEP). Positions shall be reported as Latitude/Longitude WGS 84 in decimal degrees. West Longitude and South Latitude values are reported as negative.

3.1.3.1 Vessel Horizontal Positioning

Vessel horizontal positioning shall be recorded as geographic coordinates of the vessel as indicated by the location of the GPS antenna.

3.1.3.2 Draghead Horizontal Positioning

Draghead horizontal positioning shall be recorded as geographic coordinates of the heel on the centerline of the draghead(s). Any offset calculations from the GPS antenna should be described in the DPIIP.

3.1.4 Hull Status

Open/closed status of the hopper dredge, corresponding to the split/non-split condition of a split-hull hopper dredge, shall be monitored. For dredges with hopper doors, the status of a single door that is the first opened during normal disposal operations may be monitored. An "open" value shall indicate that the hopper door is open or, in the case of split-hull dredges, that the hull is split. A "closed" value indicates that the hopper doors are closed or, in the case of split-hull dredges, that the hull is not split.

For this contract, hull status shall register closed prior to leaving the disposal area.

3.1.5 Dredge Course

Dredge course-over-ground (COG) shall be provided using industry-standard equipment. The Contractor shall provide dredge course-over-ground to the nearest whole degree with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.6 Dredge Speed

Dredge speed-over-ground shall be provided in knots using industry-standard equipment with a minimum accuracy of 1 knot and resolution to the nearest 0.1 knot.

3.1.7 Dredge Heading

Dredge heading shall be provided using industry-standard equipment. The dredge heading shall be accurate to within 5 degrees and reported to the nearest whole degree with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.8 Tide

Tide data shall be obtained using appropriate equipment to give the water level with an accuracy of +/- 0.1 foot and a resolution of 0.01 foot. Tide values above project datum described in the dredging specification shall be entered with a positive sign and those below with a negative sign.

3.1.9 Draft

All reported draft measurements shall be in feet, tenths, and hundredths with an accuracy of +/- 0.1 foot relative to observed physical draft readings. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). The reported forward draft value shall be equal to the sum of the visual forward port and starboard draft mark readings divided by two. The reported aft draft value shall be equal to the sum of the visual aft port and starboard draft mark readings divided by two. Forward draft, aft draft, and average draft will be reported. Sensors shall be placed at an optimum location on the vessel to be reflective of observed physical draft mark readings at any trim or list. Minimum accuracies are conditional to relatively calm water. The sensor value

reported shall be an average of at least ten samples per event, with at least one maximum value and one minimum value removed, and the minimum eight remaining values averaged. When the average draft is calculated for the purpose of determining displacement, significant digits for average draft shall be maintained such that if forward draft was 0.15 and aft draft was 0.1, then the average draft would be 0.125.

3.1.10 Hopper Ullage Sounding

All reported ullage soundings shall be in feet, tenths, and hundredths with an accuracy of +/- 0.1 foot with respect to the combing and be representative of the forward and aft extents of the hopper as close to the centerline as is possible. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). Forward ullage and aft ullage soundings will be reported. Sensors should be mounted so as to avoid discharge flume turbulence, foam, and any structure that could produce sidelobe errors. If sensors must be offset from the centerline of the hopper, they should be offset to opposite sides of the vessel. If more than one fore or one aft sensor are used, they shall be placed near the corners of the hopper, and the average value of the fore sensors and the average value of the aft sensors shall be reported. The sensor value reported shall be an average of at least ten samples per event, with at least one maximum value and one minimum value removed, and the minimum eight remaining values averaged. When the average ullage is calculated for the purpose of determining hopper volume, significant digits for average ullage shall be maintained such that if forward ullage was 0.15 and aft ullage was 0.1, then the average ullage would be 0.125.

3.1.11 Hopper Volume

Hopper volume shall be reported in cubic yards, based on the most accurate method available for the dredge. The minimum standard of accuracy for hopper volume is interpolation from the certified hopper volume table, based on the average fore and aft electronic ullage soundings.

3.1.12 Displacement

Dredge displacement shall be reported in long tons, based on the most accurate method available for the dredge. The minimum standard of accuracy for displacement is interpolation from the displacement table, based on the average draft. For this contract the density of water used to calculate displacement shall be 1025 kg/cubic meter, and it shall be used for an additional interpolation between the fresh and salt water tables.

3.1.13 Empty Displacement

Empty displacement shall be reported in long tons and shall be the lightship value of the dredge, or the weight of the dredge with no material in the hopper, adjusted for fuel and water consumption.

3.1.14 Draghead Depths

Draghead depths shall be reported with an accuracy of +/- 0.5 foot and a resolution to the nearest 0.1 foot as measured from the surface of the water with no tidal adjustments. Minimum accuracies are conditional to relatively calm water. The sensor value reported shall be an average of at least ten samples per event, with at least one maximum value and one minimum value removed, and the minimum eight remaining values averaged.

3.1.15 Slurry Densities of Dragarms

A density metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry density of each dragarm to the nearest 0.0001 g/cc with an accuracy of +/- 0.001 g/cc. If the manufacturer does not specify a frequency of recalibration, calibration shall be conducted prior to commencement of work.

3.1.16 Slurry Velocities of Dragarms

A flow metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry velocity of each dragarm to the nearest 0.0001 fps with an accuracy of +/- 0.001 fps. If the manufacturer does not specify a frequency of recalibration, calibration shall be conducted prior to commencement of work. The slurry velocity shall be measured in the same pipeline inside diameter as that used for the slurry density measurement.

3.1.17 Pump RPM

Pump RPM shall be measured with the highest level of accuracy that is standard on the vessel operational displays, either at the bridge, at the drag tender's controls, or in the engine room. Dredges with multiple pumps per side shall report RPM for the pump that best describes the dredging process (typically the outboard pump). If requirements of the paragraph entitled "Pumpout," are determined based on the pump RPM, then that value shall be reported.

3.1.18 Sea Suction Valve for Dragarm

If sea suction can be taken to bypass suction through the draghead, the sea suction location and valve status will be reported. The status of the valve will change from "closed" to "open" when the valve starts to open and will register "closed" when the valve is fully closed. When applicable, the state of the latch will be reported as "true" or "false." The sea suction location shall be reported in a standard non-changing name string of no more than 20 characters. These field values will always occur in the XML string as a set. The DQM system can accommodate only up to four unique sea suction locations. Suggested options for the naming convention can be found in the example dataset in the paragraph entitled "Data Format."

3.1.19 Pumpout

When the hopper dredge is being pumped out, a "true" value shall be reported; when it is not, a "false" value shall be reported. The only permissible values are "true" and "false."

3.2 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS

The Contractor's DQM system shall be capable of collecting, displaying, and transmitting information to the DQM database. The applicable parameters from the paragraph entitled "Requirements for Reported Data," shall be recorded as events locally and continually transmitted to the DQM database anytime an Internet connection is available. The Dredge shall be equipped with a DQM computer system, consisting of a computer, monitor, keyboard, mouse, data modem, UPS, and network hub. The computer system shall be a standalone system, exclusive to the DQM monitoring system, and will have USACE DQM software installed on it. If a hardware problem occurs, or if a part of the system is physically damaged, then the Contractor shall be

responsible for repairing it within 48 hours of determination of the condition.

3.2.1 Computer Requirements

The Contractor shall provide a dedicated onboard computer for use by the DQM system. This computer shall run USACE software and receive data from the Contractor's data-reporting interface. This computer must meet or exceed the following performance specifications:

CPU:	Intel or AMD processor with a (non-overclocked) clock speed of at least 3 gigahertz (GHz)
Hard drive:	250 gigabytes (GB); internal
RAM:	2 gigabytes (GB)
Ethernet adapter:	10 or 100 megabit (Mbit) internal network card with an RJ-45 connector
Video adapter:	Must support resolution of 1024x768 at 16-bit color depth
Keyboard:	Standard 101-key
Mouse:	Standard 2-button mouse
Monitor:	17-inch viewable display; must support 1024x768 resolution at 16-bit color depth
CD-ROM drive:	16X read speed/8X write speed
Ports:	2 free serial ports with standard 9-pin connectors; 1 free USB port
Other hardware:	Category 5 (Cat-5) cable with standard RJ-45 plugs connecting the network adapter to the network hub; 1 spare cable

The Contractor shall install a fully licensed copy of Windows 7 Professional Operating System on the computer specified above. The Contractor shall also install any necessary manufacturer-provided drivers for the installed hardware.

This computer shall be located and oriented to allow data entry and data viewing, as well as to provide access to data ports for the connection of external hardware. Location and orientation shall be subject to the COR's approval.

3.2.2 Software

The DQM computer's primary function is to transmit data to the DQM shoreside database. No other software which conflicts with this function shall be installed on this computer. The DQM computer will have the USACE-provided Dredging Quality Management Onboard Software (DQMOBS) installed on it by DQM personnel along with USACE-selected software for remote support and management.

3.2.3 Network Hub

The DQM computer shall communicate via IEEE 802.3 Ethernet and the TCP/IP networking protocol. The Contractor shall provide a network hub to allow the temporary addition of the COR's portable computer to the computer network. The hub shall provide a minimum of four RJ-45 ports that support Category 5 (Cat-5) cable with standard RJ-45 plugs connecting the network adapter to the network hub; one spare cable shall be available on site to plug into the network hub.

3.2.4 UPS

The Contractor shall supply an Uninterruptible Power Supply (UPS) for the computer and networking equipment. The UPS shall provide backup power at 1 kVA for a minimum of ten minutes. The UPS shall interface with the DQM computer to communicate UPS status. The Contractor shall ensure that sufficient power outlets are available to run all specified equipment.

3.2.5 Internet Access

The Contractor shall maintain an Internet connection capable of transmitting real-time data to the DQM server and supporting remote access, as well as enough additional bandwidth to clear historically queued data when a connection is re-obtained. The telemetry system shall always be available and have connectivity in the contract area. If connectivity is lost, unsent data shall be queued and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the Internet connection available for data transmission to the DQM web service. The hardware and software must be configured to allow the DQM Support Center remote access to this computer. Coordination between the dredging company's IT and the DQM Support Center may be required in order to configure remote access through any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum reporting requirements in all operating conditions.

3.2.6 Data Routing Requirements

Onboard sensors shall continually monitor dredge conditions, operations and efficiency and route this information into the shipboard dredge-specific system (DSS) computer to assist in guiding dredge operations. Portions of this Contractor-collected information shall be routed to the DQM computer on a real-time basis. Standard sensor data shall be sent to the DQM computer via an RS-232 9600- or 19200-baud serial interface. The serial interface shall be configured as 8 bits, no parity, and no flow control.

3.2.7 Data Reporting Frequency

Data shall be logged as a series of events. Each event will consist of a dataset containing dredge information as per the paragraph entitled "Requirements for Reported Data." Each set of measurements (time, position, etc.) will be considered an event. Any required information in paragraph entitled "Requirements for Reported Data" that is not an averaged variable (draft and ullage) shall be collected within 1 second of the reported time. A data string for an event shall be sent to the DQM computer every 6 to 12 seconds, and this interval shall remain constant throughout the contract; data strings shall never be transmitted more frequently than once per every 5 seconds. Any averaged variable must be collected and computed within this sampling interval.

3.2.8 Data Format

Data shall be reported as an eXtensible Markup Language (W3C standard XML 1.0) document as indicated below. Line breaks and spaces are added for readability, but the carriage return, line feed character combination is added only to delineate records (HOPPER_DREDGING_DATA tag) for actual data transmission.

```
{?xml version="1.0"?}  
{HOPPER_DREDGING_DATA version = "2.0"}
```

```

{DREDGE_NAME} string32 {/DREDGE_NAME}
  {HOPPER_DATA_RECORD}
    {DATE_TIME} time date string {/DATE_TIME}
    {LOAD_NUMBER} integer string {/LOAD_NUMBER}
    {VESSEL_X coord_type="LL"} floating point string {/VESSEL_X}
    {VESSEL_Y coord_type="LL"} floating point string {/VESSEL_Y}
    {PORT_DRAG_X coord_type="LL"} floating point string
{/PORT_DRAG_X}
    {PORT_DRAG_Y coord_type="LL"} floating point string
{/PORT_DRAG_Y}
    {STBD_DRAG_X coord_type="LL"} floating point string
{/STBD_DRAG_X}
    {STBD_DRAG_Y coord_type="LL"} floating point string
{/STBD_DRAG_Y}
    {HULL_STATUS} OPEN/CLOSED string {/HULL_STATUS}
    {VESSEL_COURSE} floating point string {/VESSEL_COURSE}
    {VESSEL_SPEED} floating point string {/VESSEL_SPEED}
    {VESSEL_HEADING} floating point string {/VESSEL_HEADING}
    {TIDE} floating point string {/TIDE}
    {DRAFT_FORE} floating point string {/DRAFT_FORE}
    {DRAFT_AFT} floating point string {/DRAFT_AFT}
    {ULLAGE_FORE} floating point string {/ULLAGE_FORE}
    {ULLAGE_AFT} floating point string {/ULLAGE_AFT}
    {HOPPER_VOLUME} floating point string {/HOPPER_VOLUME}
    {DISPLACEMENT} floating point string {/DISPLACEMENT}
    {EMPTY_DISPLACEMENT} floating point string
{/EMPTY_DISPLACEMENT}
    {DRAGHEAD_DEPTH_PORT} floating point string
{/DRAGHEAD_DEPTH_PORT}
    {DRAGHEAD_DEPTH_STBD} floating point string
{/DRAGHEAD_DEPTH_STBD}
    {PORT_DENSITY} floating point string {/PORT_DENSITY}
    {STBD_DENSITY} floating point string {/STBD_DENSITY}
    {PORT_VELOCITY} floating point string {/PORT_VELOCITY}
    {STBD_VELOCITY} floating point string {/STBD_VELOCITY}
    {PUMP_RPM_PORT} floating point string {/PUMP_RPM_PORT}
    {PUMP_RPM_STBD} floating point string {/PUMP_RPM_STBD}
    {VALVE_1_LOCATION} string32 {/VALVE_1_LOCATION}
    {VALVE_1_STATUS} open/closed {/VALVE_1_STATUS}
    {VALVE_1_LATCHED} true/false {/VALVE_1_LATCHED}
    {VALVE_2_LOCATION} string32 {/VALVE_2_LOCATION}
    {VALVE_2_STATUS} open/closed {/VALVE_2_STATUS}
    {VALVE_2_LATCHED} true/false {/VALVE_2_LATCHED}
    {VALVE_3_LOCATION} string32 {/VALVE_3_LOCATION}
    {VALVE_3_STATUS} open/closed {/VALVE_3_STATUS}
    {VALVE_3_LATCHED} true/false {/VALVE_3_LATCHED}
    {VALVE_4_LOCATION} string32 {/VALVE_4_LOCATION}
    {VALVE_4_STATUS} open/closed {/VALVE_4_STATUS}
    {VALVE_4_LATCHED} true/false {/VALVE_4_LATCHED}
    {PUMP_OUT_ON} true/false/unknown string {/PUMP_OUT_ON}
    {NU1} floating point string {/NU1}
    {NU2} floating point string {/NU2}
    {NU3} floating point string {/NU3}
    {NU4} floating point string {/NU4}
    {NU5} floating point string {/NU5}
    {NU6} floating point string {/NU6}
    {NU7} floating point string {/NU7}
    {NU8} floating point string {/NU8}
    {NU9} floating point string {/NU9}

```

```

    {NU10} floating point string {/NU10}
    {NUAVG} floating point string {/NUAVG}
    {NVOL} floating point string {/NVOL}
    {/HOPPER_DATA_RECORD}

{/HOPPER_DREDGING_DATA}
Carriage Return - ASCII value 13
Line Feed - ASCII value 10

```

Example

```

{?xml version="1.0"?}
{HOPPER_DREDGING_DATA version = "2.0"}
  {DREDGE_NAME}Essayons{/DREDGE_NAME}
  {HOPPER_DATA_RECORD}
    {DATE_TIME}04/11/2002 13:12:05{/DATE_TIME}
    {LOAD_NUMBER}102{/LOAD_NUMBER}
    {VESSEL_X coord_type="LL"}-80.123333{/VESSEL_X}
    {VESSEL_Y coord_type="LL"}10.123345{/VESSEL_Y}
    {PORT_DRAG_X coord_type="LL"}-80.1233371{/PORT_DRAG_X}
    {PORT_DRAG_Y coord_type="LL"}10.12335{/PORT_DRAG_Y}
    {STBD_DRAG_X coord_type="LL"}-80.123339{/STBD_DRAG_X}
    {STBD_DRAG_Y coord_type="LL"}10.123347{/STBD_DRAG_Y}
    {HULL_STATUS}CLOSED{/HULL_STATUS}
    {VESSEL_COURSE}258{/VESSEL_COURSE}
    {VESSEL_SPEED}3.4{/VESSEL_SPEED}
    {VESSEL_HEADING}302{/VESSEL_HEADING}
    {TIDE}-0.1{/TIDE}
    {DRAFT_FORE}10.05{/DRAFT_FORE}
    {DRAFT_AFT}15.13{/DRAFT_AFT}
    {ULLAGE_FORE}10.11{/ULLAGE_FORE}
    {ULLAGE_AFT}10.22{/ULLAGE_AFT}
    {HOPPER_VOLUME}2555.2{/HOPPER_VOLUME}
    {DISPLACEMENT}4444.1{/DISPLACEMENT}
    {EMPTY_DISPLACEMENT}2345.0{/EMPTY_DISPLACEMENT}
    {DRAGHEAD_DEPTH_PORT}55.10{/DRAGHEAD_DEPTH_PORT}
    {DRAGHEAD_DEPTH_STBD}53.21{/DRAGHEAD_DEPTH_STBD}
    {PORT_DENSITY}1.02{/PORT_DENSITY}
    {STBD_DENSITY}1.03{/STBD_DENSITY}
    {PORT_VELOCITY}22.1{/PORT_VELOCITY}
    {STBD_VELOCITY}23.3{/STBD_VELOCITY}
    {PUMP_RPM_PORT}55{/PUMP_RPM_PORT}
    {PUMP_RPM_STBD}54{/PUMP_RPM_STBD}
    {VALVE_1_LOCATION}Starboard Dragarm{/VALVE_1_LOCATION}
    {VALVE_1_STATUS}open{/VALVE_1_STATUS}
    {VALVE_1_LATCHED>true{/VALVE_1_LATCHED}
    {VALVE_2_LOCATION}Port Dragarm{/VALVE_2_LOCATION}
    {VALVE_2_STATUS}closed{/VALVE_2_STATUS}
    {VALVE_2_LATCHED>false{/VALVE_2_LATCHED}
    {VALVE_3_LOCATION}Port Sea Chest{/VALVE_3_LOCATION}
    {VALVE_3_STATUS}closed{/VALVE_3_STATUS}
    {VALVE_3_LATCHED>false{/VALVE_3_LATCHED}
    {VALVE_4_LOCATION}Starboard Sea Chest{/VALVE_4_LOCATION}
    {VALVE_4_STATUS}open{/VALVE_4_STATUS}
    {VALVE_4_LATCHED>false{/VALVE_4_LATCHED}
    {PUMP_OUT_ON>false{/PUMP_OUT_ON}
    {NU1} 10.11 {/NU1}
    {NU2} 10.23 {/NU2}
    {NU3} 10.33 {/NU3}

```

```

        {NU4} 10.22 {/NU4}
        {NU5} 10.99 {/NU5}
        {NU6} 11.43 {/NU6}
        {NU7} 10.50 {/NU7}
        {NU8} 11.02 {/NU8}
        {NU9} 10.09 {/NU9}
        {NU10} 9.87 {/NU10}
        {NUAVG} 10.48 {/NUAVG}
        {NVOL} 5641.98 {/NVOL}
    {/HOPPER_DATA_RECORD}
{/HOPPER_DREDGING_DATA}
{cr}
{lf}
{DREDGE_NAME}Essayons{/DREDGE_NAME}
    {HOPPER_DATA_RECORD}
        {DATE_TIME}04/11/2002 13:12:10{/DATE_TIME}
        {LOAD_NUMBER}102{/LOAD_NUMBER}
        {VESSEL_X coord_type="LL"}-80.123334{/VESSEL_X}
        {VESSEL_Y coord_type="LL"}10.123346{/VESSEL_Y}
        {PORT_DRAG_X coord_type="LL"}-80.1233372{/PORT_DRAG_X}
        {PORT_DRAG_Y coord_type="LL"}10.12336{/PORT_DRAG_Y}
        {STBD_DRAG_X coord_type="LL"}-80.123340{/STBD_DRAG_X}
        {STBD_DRAG_Y coord_type="LL"}10.123348{/STBD_DRAG_Y}
        {HULL_STATUS}CLOSED{/HULL_STATUS}
        {VESSEL_COURSE}259{/VESSEL_COURSE}
        {VESSEL_SPEED}3.5{/VESSEL_SPEED}
        {VESSEL_HEADING}300{/VESSEL_HEADING}
        {TIDE}-0.1{/TIDE}
        {DRAFT_FORE}10.00{/DRAFT_FORE}
        {DRAFT_AFT}15.15{/DRAFT_AFT}
        {ULLAGE_FORE}10.15{/ULLAGE_FORE}
        {ULLAGE_AFT}10.20{/ULLAGE_AFT}
        {HOPPER_VOLUME}2555.5{/HOPPER_VOLUME}
        {DISPLACEMENT}4444.0{/DISPLACEMENT}
        {EMPTY_DISPLACEMENT}2345.0{/EMPTY_DISPLACEMENT}
        {DRAGHEAD_DEPTH_PORT}55.15{/DRAGHEAD_DEPTH_PORT}
        {DRAGHEAD_DEPTH_STBD}53.19{/DRAGHEAD_DEPTH_STBD}
        {PORT_DENSITY}1.00{/PORT_DENSITY}
        {STBD_DENSITY}1.01{/STBD_DENSITY}
        {PORT_VELOCITY}22.5{/PORT_VELOCITY}
        {STBD_VELOCITY}23.3{/STBD_VELOCITY}
        {PUMP_RPM_PORT}55{/PUMP_RPM_PORT}
        {PUMP_RPM_STBD}54{/PUMP_RPM_STBD}
        {VALVE_1_LOCATION}Starboard Dragarm{/VALVE_1_LOCATION}
        {VALVE_1_STATUS}open{/VALVE_1_STATUS}
        {VALVE_1_LATCHED>true{/VALVE_1_LATCHED}
        {VALVE_2_LOCATION}Port Dragarm{/VALVE_2_LOCATION}
        {VALVE_2_STATUS}closed{/VALVE_2_STATUS}
        {VALVE_2_LATCHED>false{/VALVE_2_LATCHED}
        {VALVE_3_LOCATION}Port Sea Chest{/VALVE_3_LOCATION}
        {VALVE_3_STATUS}closed{/VALVE_3_STATUS}
        {VALVE_3_LATCHED>false{/VALVE_3_LATCHED}
        {VALVE_4_LOCATION}Starboard Sea Chest{/VALVE_4_LOCATION}
        {VALVE_4_STATUS}open{/VALVE_4_STATUS}
        {VALVE_4_LATCHED} false{/VALVE_4_LATCHED}
        {PUMP_OUT_ON>false{/PUMP_OUT_ON}
        {NU1} 11.11 {/NU1}
        {NU2} 11.23 {/NU2}
        {NU3} 11.33 {/NU3}

```

```

      {NU4} 11.22 {/NU4}
      {NU5} 11.99 {/NU5}
      {NU6} 10.43 {/NU6}
      {NU7} 11.50 {/NU7}
      {NU8} 10.02 {/NU8}
      {NU9} 11.09 {/NU9}
      {NU10} 10.87 {/NU10}
      {NUAVG} 11.48 {/NUAVG}
      {NVOL} 6213.98 {/NVOL}
      {/HOPPER_DATA_RECORD}
{/HOPPER_DREDGING_DATA}
{cr}
{lf}

```

3.2.9 Data Reporting

The system shall transmit correctly formatted event data XML strings to the DQM database continuously from mobilization until the last USACE post-dredging survey has been accepted. If the Internet connection (paragraph entitled "Internet Access") is non-operable, manual backups from the dredge computer of the XML data string which would have been transmitted to the DQM computer over the serial connection shall be performed for each day the device is inoperable and submitted to the DQM Support Center within 48 hours. This submission does not replace the requirement of correcting the issue affecting the automatic transmission of data. In the event of data transfer, transmission, or hardware failure, a manually recorded disposal log shall be maintained. It shall consist of a series of events. These events are start of dredging, end of dredging, pre-disposal, and post-disposal. Each event shall include time stamp (GMT), position (Latitude and Longitude WGS84), draft, ullage, volume, and displacement. Disposal logs shall be submitted on a daily basis to the COR during the time when the system is not operational.

3.2.10 Contractor Data Backup

The Contractor shall maintain an archive of all data sent to the DQM computer during the dredging contract. The COR may require, at no increase in the contract price, that the Contractor provide a copy of these data covering specified time periods. The data shall be provided in the XML format which would have been transmitted to the DQM computer. There shall be no line breaks between the parameters; each record string shall be on separate line. The naming convention for the files shall be {dredgename}_{StartYYYYMMddhhmmss}_{EndYYYYMMddhhmmss}.txt. Data submission shall be via storage medium acceptable to the COR.

At the end of the dredging contract, the Contractor shall contact the DQM Support Center prior to discarding the data to ensure that it has been appropriately archived. The Contractor shall record in a separate section at the end of the dredge's onboard copy of the DPIP the following information:

- Person who made the call
- Date of the call
- DQM representative who gave permission to discard

The same day of the phone call and prior to discarding the data, the Contractor shall submit a "Data Appropriately Archived email" to the local

District's COR with the above information, and cc: the DQM Support Center representative providing discard permission. In addition to the above information, the following shall also be included in the email:

- Project name and contract number
- Dredge start and end dates
- Name of the hopper dredge

3.3 PERFORMANCE REQUIREMENTS

The Contractor's DQM system shall be fully operational at the start of dredging operations and fully certified prior to moving dredge material on the contract (see paragraph entitled "National Dredging Quality Management Program Certification"). To meet contract requirements for operability, in addition to certification, the Contractor's system shall provide a data string with all values for all parameters while operating, as described in the specifications. Additionally, all hardware shall be compliant with hardware requirements (paragraph entitled "Computer Requirements"). Quality data strings are considered to be those providing accurate values for all parameters reported when operating according to the specification. Repairs necessary to restore data return compliance shall be made within 48 hours. If the Contractor fails to report required data within the specified time window for dredge measurements (see paragraphs entitled "Data Reporting Frequency" and "Data Reporting"); the system will be declared not fully operational, and the Contractor will be assessed liquidated damages equivalent to the additional oversight hours that would be required for Corps personnel to be on site from the first full day after the system is deemed not operational through to the time when the system is returned to fully operational status. For this contract, the liquidated damages shall be \$4,855 per day.

3.4 COMPLIANCE QUALITY ASSURANCE CHECKS

Quality assurance checks are required prior to the commencement of dredging, and at the discretion of a COR periodically throughout the duration of the contract. Detailed instructions for performing these checks and a spreadsheet for recording the results are available at <http://dqm.usace.army.mil/Certifications/Index.aspx>. Incoming data shall be periodically reviewed to ensure compliance with performance requirements outlined in the paragraph entitled "Performance Requirements." The data received must meet the reporting requirements outlined in the subparagraphs under the paragraph entitled "Requirements for Reported Data"; a more detailed description of some of the quality assurance methods is outlined below.

For annual instrumentation checks and compliance monitoring, the DQM Data Acquisition and Analysis Team personnel attempt to be as flexible as possible in performing their checks so as not to delay work; however, in order to expedite matters as much as possible, it is necessary that they receive the support and cooperation of the local District and the Contractor. The Contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM-certified system in a timely manner. Calibrations to the sensors should already have been performed before DQM personnel arrive on site.

3.4.1 Draft and Displacement Check

The COR shall periodically verify the accuracy of the fore and aft system-reported draft values by comparing the vessel hull draft marks to the corresponding sensor readings indicated on the DQM screen. The vessel's hull draft reading shall be viewed from a Contractor-supplied auxiliary vessel circling the dredge. The COR shall review the difference between averaged drafts recorded by the instruments and those estimated from the draft marks to ensure that the system is operating within the acceptable accuracy of approximately +/- 0.1 foot in calm seas conditions. Reported draft values will be verified light, loaded, and at other intervals at the discretion of the COR. If sensors responsible for collecting draft values are not located on centerline, verification may be required under different trim and list conditions. If values are outside the acceptable range, the Contractor shall recalibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test. For each system-provided fore and aft draft, an average draft value will be calculated during the draft check, and the corresponding displacement will be verified longhand using the supplied draft/displacement tables.

3.4.2 Draghead Depth Check

The COR may require periodic calibration checks of the reported draghead depth using manual means, such as tape measures or sounding lines, to directly measure draghead depth. The Contractor shall furnish a steel tape, chain, or wire with clearly visible flags/tags placed at 1-foot increments within the operational range of the dragarm. These devices shall be capable of measuring the depth below the water surface to the lowest fixed point of each draghead (often the heel) with sufficient length to measure 5 feet more than the maximum project depth. Pressure sensors may be used to verify calibration of the draghead sensors only in areas where current flow past the vessel/dragarm cannot be reduced sufficiently to allow safe handling of manual measuring devices. Pressure sensors used for this purpose shall be vented pressure gages and shall be subjected to an annual manufacturer's calibration. Prior to the dragarm depth check, the sensor shall be checked at a known depth and may be required to be zeroed at this point according to manufacturer's specifications. Care shall be taken not to kink the cable or restrict the vent during deployment.

The COR shall review the draghead depth data to ensure that the system is operating within acceptable accuracy and may direct the Contractor to recalibrate or repair system components as necessary. If a bubbler-type system is used, weekly calibration of the draghead sensors is recommended as they are sensitive to environmental conditions.

3.4.3 Ullage Sounding and Volume Check

The COR shall periodically check the reported hopper ullage sounding using a tape measure or other distance-measuring device. The Contractor shall furnish a clearly readable weighted tape, marked in tenths of a foot, capable of measuring throughout the full range of hopper depth. The weight for this tape shall be a 6-inch diameter disk weighing between 2 and 3 pounds. The COR shall review the hopper dredge ullage sounding data to ensure that the system is operating within acceptable accuracy (0.1 foot). Reported ullage soundings will be verified light, loaded, and at other intervals at the COR's discretion. Measurements can be taken from multiple locations along the combing or from sensor location at the COR's discretion. If values are outside the acceptable range, the Contractor shall recalibrate or repair system components as necessary. This check may

be performed separately or as a part of the Water Load Test. For each sensor-provided fore and aft ullage sounding value, an average ullage sounding value will be calculated during the ullage sounding check, and the corresponding volume will be verified longhand using the supplied hopper volume tables.

3.4.4 Position Check

During the QA checks the reported position of the dredge shall be verified by comparison with readings from a handheld GPS receiver. Throughout the contract, the COR shall periodically take readings from an independent GPS to verify locations.

3.4.5 Water Load Test

Water Load Tests shall consist of pumping the hopper dredge out to its lowest level and then filling it to capacity with water, taking ullage and draft measurements at both levels to determine hopper dredge volume and displacement. The objective of the Water Load Test is to validate the dredge's reported displacement and hopper volumes. If the results of the Water Load Test indicate that the system is not operating within acceptable accuracy, the Contractor shall correct the deficiencies causing the error and repeat the Water Load Test until the results are acceptable.

The Contractor shall provide a handheld refractometer with automatic temperature compensation to measure the hopper dredge water-specific gravity during water tests. The refractometer shall be capable of measuring the hopper dredge water-specific gravity in grams/cubic centimeter with a resolution of 0.001 and minimum accuracy of +/- 0.001. The Contractor shall also provide a water-sampling device to retrieve a sufficient volume of water from various depths in the hopper dredge to accurately determine the specific gravity with the refractometer and a sufficient volume of deionized water for calibration of the device.

3.5 CONTRACTOR QUALITY CONTROL

The Contractor shall designate a Quality Control Systems Manager (QCSM), who shall develop and maintain daily procedures to ensure the Contractor's quality control (CQC) of the DQM system. These methods shall include a procedure by which data being collected is checked against known values, telemetry is verified to be functioning, and the DQM computer is verified to be on and the DQMOBS is running. The Contractor Quality Control Plan, which describes these methods and procedures shall be included in the DPIP as per the paragraph entitled "Dredge Plant Instrumentation Plan (DPIP)." This is the only section which shall be submitted to the local District and is a required submittal prior to the start of the contract. CQC Reports may be required at the discretion of the Quality Assurance Representative (QAR) daily. Annotations shall be made in the CQC Report, documenting all actions taken on each day of work, including all deficiencies found and corrective actions taken.

3.6 LIST OF ITEMS TO BE PROVIDED BY THE CONTRACTOR

DPIP	Paragraph entitled "Dredge Plant Instrumentation Plan (DPIP) "
DQM System	
Sensor instrumentation	Paragraph entitled "Requirements for Reported Data"

DQM computer Paragraph entitled "National Dredging Quality Management Program System Requirements"

Dredge Data

Event documentation Paragraph entitled "Data Reporting"
Dredge data backups Paragraph entitled "Contractor Data Backup"

QA Equipment on the Dredge

Dragarm depth chain Paragraph entitled "Draghead Depth Check"
Ullage tape Paragraph entitled "Ullage Sounding and Volume Check"
Refractometer Paragraph entitled "Water Load Test"
Water sampling device Paragraph entitled "Water Load Test"

-- End of Section --