

THIS PROJECT IS ADVERTISED ON AN UNRESTRICTED BASIS  
AS A STAND-ALONE “C” TYPE INVITATION FOR BID (IFB) SOLICITATION

SOLICITATION NO: **W9127820B0003**

CADD NO: **CHC20001**

SPECIFICATIONS

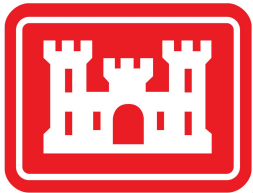
FOR

**MOBILE HARBOR, ALABAMA  
DEEPENING AND WIDENING - PHASE 1**

**MOBILE, ALABAMA**

THIS IS A CIVIL WORKS PROGRAM PROCUREMENT AND IS NOT FUNDED BY THE  
DEPARTMENT OF DEFENSE

*“GOOD ENGINEERING RESULTS IN A BETTER ENVIRONMENT”*



US Army Corps of Engineers  
BUILDING STRONG.®

U.S. ARMY ENGINEER DISTRICT, MOBILE  
109 St. Joseph St  
Mobile, Alabama 36602



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**NOTICE TO BIDDERS**

**SEE NOTE 8. LACK OF REGISTRATION IN THE SAM DATA BASE WILL RENDER BIDDER INELIGIBLE FOR AWARD**

BEFORE SIGNING AND MAILING THIS BID, PLEASE TAKE NOTE OF THE FOLLOWING. AS FAILURE TO PERFORM ANY ONE OF THESE ACTIONS MAY CAUSE YOUR BID TO BE REJECTED

**THIS CHECKLIST IS DESIGNED FOR YOUR CONVENIENCE TO ASSIST YOU IN COMPLETING YOUR OFFER. ITS COMPLETION DOES NOT GUARANTEE THAT YOUR OFFER WILL BE ACCEPTABLE. A COMPLETE AND ACCEPTABLE OFFER IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.)**

1. **Amendments:** Have you acknowledged receipt of ALL amendments? If in doubt as to the **number** of amendments issued, call Chanda Strenth, Contract Specialist, at 251-441-5595.
2. **Amended Bid Pages:** If any of the amendments furnished new/revised bid pages, then the new/revised bid pages **must** be used in submitting your bid.
3. **Individual Sureties:** Please note requirements for Individual Sureties in Section 00 70 00.
4. **Performance and Payment Bonds:** Please note requirements for bonds in Section 00 70 00, and FAR Clause 52.228-15.
5. **Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction:** See Section 00 21 13, FAR Clause 52.222-23
6. **Mistakes in Proposal:** Have you reviewed your offer price for possible errors in calculation or work left out?
7. **Your Proposal Should Include the Following:** The SF 1442 (include TIN, DUNS, AND CAGE numbers in the block with your company's name), Completed Bid Schedule, any requirements from Section 00 21 13, Section 00 45 00 and any technical information required by the solicitation. Also include your Joint Venture (JV) agreement if applicable. Have all members sign the SF 1442 or provide a letter authorizing one person to bind the JV or partnership.
8. Your attention is directed to the following clauses:
  - a) FAR Clause 52.204-7, Required System Award Management (SAM) registration. Lack of registration in the SAM database will render bidder ineligible for award. Information on how to register and the time it takes is detailed in the clause.

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<b>SOLICITATION, OFFER AND AWARD</b> <b>(Construction, Alteration, or Repair)</b>	1. SOLICITATION NO. W9127820B0003	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 4 AUG 2020	PAGES OF PAGES 1 OF 2
	IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.			
4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO. CHC20001		
7. ISSUED BY CODE CT	8. ADDRESS OFFER TO  SEE CLAUSE 30 IN SECTION 01 00 01			
9. FOR INFORMATION EMAIL : Chanda.D.Strenth@usace.army.mil	A. NAME CHANDA D. STRENTH	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 251-441-5595		

**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 no., date):

**MOBILE HARBOR, ALABAMA, DEEPENING AND WIDENING – PHASE 1, MOBILE, ALABAMA**

\* See Section 00 70 00, Paragraph "COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK".

**\*\* For information pertaining to submission of electronic bids and virtual bid opening, see clause 30 in Section 01 00 01.**

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

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  10
--	------------------------------

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and   \*\* copies to perform the work required are due at the place specified in Item 8 by 1400 (hour) local time 3 SEP 2020 (date). If this is a sealed bid solicitation, offers must 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   120   calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

15. TELEPHONE NO. (Include area code)

16. REMITTANCE ADDRESS (Include only if different than Item 14)

CODE

FACILITY CODE

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

**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 NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)

20B. SIGNATURE

20C. OFFER DATE

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)

ITEM

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO

10 U.S.C. 2304(c) ( )

41 U.S.C. 253(c) ( )

26. ADMINISTERED BY

CODE

27. PAYMENT WILL BE MADE BY

**CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE**

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, requisitions 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.

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.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)

31A. NAME OF CONTRACTING OFFICER (Type or print)

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA  
BY

31C. AWARD  
DATE



PROPOSAL DATA SHEET

Also include the required, completed and signed SF 1442 in addition to this Proposal Data Sheet.

1.	Name of Solicitation:
2.	Offering Firm's Name As Appears on the SF 1442:  Offering Firm's DUNS number as it appears on the SF 1442:
3.	Mailing Address:
4.	Telephone Number:
5.	Fax Number:
6.	E-mail Address to use for all correspondence:
7.	AUTHORIZED NEGOTIATORS. Far 52.215-11. The Offeror represents that the following person(s) are authorized to negotiate on its behalf with the Government in connection with this solicitation. List name(s), title, and telephone numbers of authorized negotiator(s).  Name of Person(s) Authorized to Negotiate:  Negotiator's Address:  Negotiator's Telephone:  Negotiator's E-mail:

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BIDDER'S NAME: \_\_\_\_\_

BIDDING SCHEDULE

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
1.	Mobilization and Demobilization	1	Job	XXX	_____
2.	Channel Dredging	2,508,675	CY	_____	_____
				Total Bid	_____

OFFEROR ELECTS TO WAIVE THE PRICE EVALUATION PREFERENCE  
FOR HUBZONE SMALL BUSINESS CONCERNS:           ( ) NO           ( ) YES

(SEE BIDDING SCHEDULE NOTE NOS. 6 AND 7)

NOTES FOR BIDDING SCHEDULE

NOTE NO. 1. To better facilitate the public bid opening process, all modifications to bids are to be submitted on copies of the latest bid schedules as published in the solicitation or the latest amendment thereto. In lieu of indicating additions/deductions to bid items, all bidders should state their revised prices for each item. The company name should be indicated on the face of the bidding schedule to preclude being misplaced.

NOTE NO. 2. Bidders must insert a price on all numbered items of the bidding schedule by the Government. Failure to do so will disqualify the bid.

NOTE NO. 3. All extensions of the unit prices shown will be subject to verification by the Government. In case of variation between the unit price and extension, the unit price will be considered to be the bid.

NOTE NO. 4. If a modification to a bid is submitted and provides for a job adjustment to the total estimated cost, the application of the job adjustment to each unit price and/or job price in the bid schedule must be stated or, if it is not stated, the bidder agrees that the job adjustment shall be applied on a pro rata basis to every bid item in the bid schedule.

NOTE NO. 5. CONDITIONS GOVERNING EVALUATION OF BIDS AND AWARD OF CONTRACTS.

Only one contract will be awarded on this Bid Schedule and award will be made to the low bidder on the Total Bid.

NOTE NO. 6. IMPORTANT NOTICE: Due to the suspension of the utilization of the price adjustment for small disadvantaged businesses (FAR Clause 52.219-23) by the Under Secretary of Defense on March 12, 2010, effective until further notice, said FAR Clause is not included in or made a part of this RFP. FAR Clause 52.219-4, relating to a 10% price evaluation preference for HUB ZONE small business concerns, is included in and made a part of this RFP. PLEASE NOTE HOWEVER that paragraph (b) (3) of the preceding clause is inapplicable also due to the referenced suspension of FAR Clause 52.219-23.

Consequently, if you are a small business qualified as a HUB ZONE and as an SDB, you will only receive the HUB ZONE 10% price evaluation preference in the evaluation process of this RFP.

NOTE NO. 7. This procurement is not restricted to Hubzone Small Business Concerns. However, offerors certifying as a Hubzone Small Business Concern must be certified by the SBA on or prior to date set for receipt of offers.

END OF BID SCHEDULE

EXPLANATION OF BID ITEMS

GENERAL: This section comprises an explanation of the bid items identified in the bid schedule for each item of work. The bid schedule and the contract drawings shall be worked together to identify the various items of work to which each bid item will apply. The Contractor shall bid the work under the applicable bid item for the specific areas identified in the bid schedule. All work specified herein shall be accomplished in accordance with the requirements of the technical provisions of the specifications and the contract drawings. Payment described for the various bid items will be full compensation for all labor, materials, and equipment required to complete the work. Compensation for any item of work described in the contract but not listed in the bid schedule shall be included in the payment for the item of work to which it is made subsidiary.

Bid Item No. 1 - Mobilization/Demobilization:

(a) All costs associated with initial mobilization to the work site at the Bar portion of the Mobile Harbor Shipping Channel in Mobile County, Alabama and final demobilization of all dredge plant, dredge attendant plant, and support equipment will be included in the contract lump sum price for Mobilization and Demobilization, Bid Item No. 1. This shall include any and all costs to (1) construct the necessary features to access and prepare the work site and (2) adapt, modify, reconstruct, and/or reconfigure the dredge plant and/or other equipment to a configuration capable of performing this contract work. No other separate payment shall be made for any such configuration preparations, and payment of this bid item is considered complete compensation for such actions. Sixty percent (60%) of the lump sum price will be paid after completion of the Contractor's mobilization at the work sites. The remaining forty percent (40%) will be paid after 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 paragraph (a) above do not bear a reasonable relation to the cost of the work in this contract. 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.

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

Bid Item No. 2 - Channel Dredging:

Payment for Bid Item No. 2 will include all costs associated with the dredging and disposal of approximately 2,508,675 cubic yards of material. The quantity of material to be dredged includes approximately 268,260 cubic yards of maintenance material and 2,240,415 cubic yards of new work material. Payment will be made for the volume of material dredged between Stations 2075+00 and 2189+58.71. For the purpose of acceptance and payment, the work

shall be divided into reaches of 600 linear feet, or less at partial reaches. The quantity of material dredged for payment shall be calculated as the difference between the before- and after-dredging surveys of the area within the acceptance prism. The acceptance prism shall be defined as the lines and grades shown on the drawings. Payment will not be made for any volume dredged that exceeds the acceptance prism. Subsidiary features of work including surveying, utility location verification, shorebird monitoring, sea turtle monitoring, and turbidity monitoring shall also be included in this bid item. Details of the surveying requirements are provided in Section 35 20 23.00 36 - DREDGING, paragraph DREDGING SURVEYS. Details of the sea turtle, and turbidity monitoring are provided in section 01 57 20 - ENVIRONMENTAL PROTECTION, paragraph PROTECTION OF FISH AND WILDLIFE.

-End of Section-

<b>BID BOND</b> <i>(See instructions on reverse)</i>	DATE BOND EXECUTED <i>(Must not be later than bid opening date)</i>	<b>OMB Control Number: 9000-0045</b> <b>Expiration Date: 8/31/2022</b>
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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 1 hour 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 <i>(Legal name and business address)</i>	TYPE OF ORGANIZATION <i>("X" one)</i> <input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE <input type="checkbox"/> CORPORATION <input type="checkbox"/> OTHER <i>(Specify)</i>
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 <i>(Construction, Supplies or Services)</i>	

**OBLIGATION:**

We, the Principal and Surety(ies) are firmly bound to the United States of America (hereinafter called 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 of 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 execute 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 obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government. Notice to the surety(ies) of extension(s) is waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period 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. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	2. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	3. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	Corporate Seal
NAME(S) & TITLE(S) <i>(Typed)</i>	1. _____	2. _____	3. _____	

INDIVIDUAL SURETY(IES)		
SIGNATURE(S)	1. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>	2. _____ <div style="text-align: right; font-size: x-small;">(Seal)</div>
NAME(S) <i>(Typed)</i>	1. _____	2. _____

CORPORATE SURETY(IES)					
SURETY A	NAME & ADDRESS		STATE OF INCORPORATION	LIABILITY LIMIT (\$)	Corporate Seal
	SIGNATURE(S)	1. _____	2. _____		
	NAME(S) & TITLE(S) <i>(Typed)</i>	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) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitations listed therein. The value put into the LIABILITY LIMIT block is the penal sum (i.e., the face value) of the bond, unless a co-surety arrangement is proposed.  
  
(b) When multiple corporate sureties are involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designated "SURETY(IES)" on the face of the form, insert only the letter identifier corresponding to each of the sureties. Moreover, when co-surety arrangements exist, the parties may allocate their respective limitations of liability under the bond, provided that the sum total of their liability equals 100% of the bond penal sum.  
  
(c) When individual sureties are involved, a completed Affidavit of Individual Surety (Standard Form 28) for 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."



**AFFIDAVIT OF INDIVIDUAL SURETY***(See instructions on reverse)*

OMB Control Number: 9000-0001

Expiration Date: 2/28/2021

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 9000-0001. We estimate that it will take 0.3 hours 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.

STATE OF	<b>SS.</b>
COUNTY OF	

I, the undersigned, being duly sworn, depose and say that I am: (1) the surety to the attached bond(s); (2) a citizen of the United States; and of full age and legally competent. I also depose and say that, concerning any stocks or bonds included in the assets listed below, that there are no restrictions on the resale of these securities pursuant to the registration provisions of Section 5 of the Securities Act of 1933. I recognize that statements contained herein concern a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious or fraudulent statement may render the maker subject to prosecution under Title 18, United States Code Sections 1001 and 494. This affidavit is made to induce the United States of America to accept me as surety on the attached bond.

1. NAME (First, Middle, Last) (Type or Print)	2. HOME ADDRESS (Number, Street, City, State, ZIP Code)
3. TYPE AND DURATION OF OCCUPATION	4. NAME AND ADDRESS OF EMPLOYER (If Self-employed, so State)
5. NAME AND ADDRESS OF INDIVIDUAL SURETY BROKER USED (Number, Street, City, State, ZIP Code)	6. TELEPHONE NUMBER HOME - BUSINESS -

7. THE FOLLOWING IS A TRUE REPRESENTATION OF THE ASSETS I HAVE PLEDGED TO THE UNITED STATES IN SUPPORT OF THE ATTACHED BOND:  
(a) Real estate (Include a legal description, street address and other identifying description; the market value; attach supporting certified documents including recorded lien; evidence of title and the current tax assessment of the property. For market value approach, also provide a current appraisal.)

(b) Assets other than real estate (describe the assets, the details of the escrow account, and attach certified evidence thereof).

8. IDENTIFY ALL MORTGAGES, LIENS, JUDGEMENTS, OR ANY OTHER ENCUMBRANCES INVOLVING SUBJECT ASSETS INCLUDING REAL ESTATE TAXES DUE AND PAYABLE.

9. IDENTIFY ALL BONDS, INCLUDING BID GUARANTEES, FOR WHICH THE SUBJECT ASSETS HAVE BEEN PLEDGED WITHIN 3 YEARS PRIOR TO THE DATE OF EXECUTION OF THIS AFFIDAVIT.

**DOCUMENTATION OF THE PLEDGED ASSET MUST BE ATTACHED.**

10. SIGNATURE	11. BOND AND CONTRACT TO WHICH THIS AFFIDAVIT RELATES (Where Appropriate)
---------------	---

**12. SUBSCRIBED AND SWORN TO BEFORE ME AS FOLLOWS:**

a. DATE OATH ADMINISTERED			b. CITY AND STATE (Or other jurisdiction)		Official Seal
MONTH	DAY	YEAR			
c. NAME AND TITLE OF OFFICIAL ADMINISTERING OATH (Type or print)			d. SIGNATURE	e. MY COMMISSION EXPIRES	

## INSTRUCTIONS

1. Individual sureties on bonds executed in connection with Government contracts must complete and submit this form with the bond. (See 48 CFR 28.203, 53.228(e).) The surety must have the completed form notarized.
2. No corporation, partnership, or other unincorporated association or firm, as such, is acceptable as an individual surety. Likewise, members of a partnership are not acceptable as sureties on bonds that a partnership or an association, or any co-partner or member thereof, is the principal obligor. However, stockholders of corporate principals are acceptable provided (a) their qualifications are independent of their stockholdings or financial interest therein, and (b) that the fact is expressed in the affidavit of justification. An individual surety will not include any financial interest in assets connected with the principal on the bond that this affidavit supports.
3. United States citizenship is a requirement for individual sureties for contracts and bonds when the contract is awarded in the United States. However, when the Contracting Officer is located in an outlying area or a foreign country, the individual surety is only required to be a permanent resident of the area or country in which the contracting officer is located.
4. All signatures of the affidavit submitted must be originals. Affidavits bearing reproduced signatures are not acceptable. An authorized person must 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 a firm, partnership, or joint venture, or an officer of the corporation involved.

# DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352  
(See reverse for public burden disclosure.)

<b>1. Type of Federal Action:</b> <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. Status of Federal Action:</b> <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. Report Type:</b> <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change <b>For Material Change Only:</b> year _____ quarter _____ date of last report _____
<b>4. Name and Address of Reporting Entity:</b> <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known:  <b>Congressional District, if known:</b> _____	<b>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</b>   <b>Congressional District, if known:</b> _____	
<b>6. Federal Department/Agency:</b> _____	<b>7. Federal Program Name/Description:</b>  <b>CFDA Number, if applicable:</b> _____	
<b>8. Federal Action Number, if known:</b> _____	<b>9. Award Amount, if known:</b> <p style="text-align: center;"><b>\$</b> _____</p>	
<b>10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):</b>   <p style="text-align: right;"><small>(attach Continuation Sheet(s) SF-LLL-A, if necessary)</small></p>		<b>b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):</b>   
<b>11. Amount of Payment (check all that apply):</b> <p>\$ _____    <input type="checkbox"/> actual    <input type="checkbox"/> planned</p>	<b>13. Type of Payment (check all that apply):</b> <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____	
<b>12. Form of Payment (check all that apply):</b> <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____	<b>14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment indicated in Item 11:</b>        <p style="text-align: right;"><small>(attach Continuation Sheet(s) SF-LLL-A, if necessary)</small></p>	
<b>15. Continuation Sheet(s) SF-LLL-A attached:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>16. Information requested through this form is authorized by title 31 U.S.C section 1352. This disclosure of lobbying activities is a materia representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.</b>	<b>Signature:</b> _____ <b>Print Name:</b> _____ <b>Title:</b> _____ <b>Telephone No.:</b> _____ <b>Date:</b> _____	
<b>Federal Use Only:</b> _____		<b>Authorized for Local Reproduction Standard Form - LLL</b>

## INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.  
  
(b) Enter the full names of the individuals(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

**DISCLOSURE OF LOBBYING ACTIVITIES  
CONTINUATION SHEET**

Approved by OM  
0348-0046

Reporting Entity: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

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## CLAUSES INCORPORATED BY FULL TEXT

### 52.204-22 ALTERNATIVE LINE ITEM PROPOSAL (JAN 2017)

(a) The Government recognizes that the line items established in this solicitation may not conform to the Offeror's practices. Failure to correct these issues can result in difficulties in acceptance of deliverables and processing payments. Therefore, the Offeror is invited to propose alternative line items for which bids, proposals, or quotes are requested in this solicitation to ensure that the resulting contract is economically and administratively advantageous to the Government and the Offeror.

(b) The Offeror may submit one or more additional proposals with alternative line items, provided that alternative line items are consistent with subpart 4.10 of the Federal Acquisition Regulation. However, acceptance of an alternative proposal is a unilateral decision made solely at the discretion of the Government. Offers that do not comply with the line items specified in this solicitation may be determined to be nonresponsive or unacceptable.

(End of provision)

### 52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 2016)

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) (1) Bidders shall acknowledge receipt of any amendment to this solicitation--

(i) By signing and returning the amendment;

(ii) By identifying the amendment number and date in space provided for this purpose on the form for submitting a bid;

(iii) By letter;

(iv) By facsimile, if facsimile bids are authorized in the solicitation; or

(v) By email, if email bids are authorized in the solicitation.

(2) The Government must receive the acknowledgement by the time and at the place specified for receipt of bids.

(End of provision)



52.214-4 FALSE STATEMENTS IN BIDS (APR 1984)

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.

(End of provision)

52.214-5 SUBMISSION OF BIDS (DEC 2016)

(a) Bids and bid modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) (1) addressed to the office specified in the solicitation, and (2) showing the time and date specified for receipt, the solicitation number, and the name and address of the bidder.

(b) Bidders using commercial carrier services shall ensure that the bid is addressed and marked on the outermost envelope or wrapper as prescribed in subparagraphs (a)(1) and (2) of this provision when delivered to the office specified in the solicitation.

(c) Facsimile bids, modifications, or withdrawals, will not be considered unless authorized by the solicitation.

(d) Bids submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation.

(End of provision)

52.214-6 EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984)

Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective bidders before the submission of their bids. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning a solicitation will be furnished promptly to all other prospective bidders as an amendment to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

(End of provision)

52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (NOV 1999)

(a) Bidders are responsible for submitting bids, and any modifications or withdrawals, so as to reach the Government office designated in the invitation for bids (IFB) by the time specified in

the IFB. If no time is specified in the IFB, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that bids are due.

(b)(1) Any bid, modification, or withdrawal received at the Government office designated in the IFB after the exact time specified for receipt of bids is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late bid would not unduly delay the acquisition; and--

(i) If it was transmitted through an electronic commerce method authorized by the IFB, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of bids; or

(ii) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of bids and was under the Government's control prior to the time set for receipt of bids.

(2) However, a late modification of an otherwise successful bid that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(c) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the bid wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(d) If an emergency or unanticipated event interrupts normal Government processes so that bids cannot be received at the Government office designated for receipt of bids by the exact time specified in the IFB and urgent Government requirements preclude amendment of the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(e) Bids may be withdrawn by written notice received at any time before the exact time set for receipt of bids. If the IFB authorizes facsimile bids, bids may be withdrawn via facsimile received at any time before the exact time set for receipt of bids, subject to the conditions specified in the provision at 52.214-31, Facsimile Bids. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

(End of provision)

#### 52.214-18 PREPARATION OF BIDS--CONSTRUCTION (APR 1984)

(a) Bids must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a bid must initial each erasure or change appearing on any bid form.

(b) The bid form may require bidders to submit bid prices for one or more items on various

bases, including--

(1) Lump sum bidding;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of subparagraphs (1) through (3) above.

(c) If the solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "no bid" in the space provided for any item on which no price is submitted.

(d) Alternate bids will not be considered unless this solicitation authorizes their submission.

(End of provision)

#### 52.214-19 CONTRACT AWARD--SEALED BIDDING--CONSTRUCTION (AUG 1996)

(a) The Government will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the Government, considering only price and the price-related factors specified elsewhere in the solicitation.

(b) The Government may reject any or all bids, and waive informalities or minor irregularities in bids received.

(c) The Government may accept any item or combination of items, unless doing so is precluded by a restrictive limitation in the solicitation or the bid.

(d) The Government may reject a bid as nonresponsive if the prices bid are materially unbalanced between line items or subline items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the Government even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advance payment.

(End of provision)

#### 52.214-34 SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991)

Offers submitted in response to this solicitation shall be in the English language. Offers received in other than English shall be rejected.

(End of provision)

52.214-35 SUBMISSION OF OFFERS IN U.S. CURRENCY (APR 1991)

Offers submitted in response to this solicitation shall be in terms of U.S. dollars. Offers received in other than U.S. dollars shall be rejected.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm fixed price (FFP) contract resulting from this solicitation.

(End of provision)

52.222-5 CONSTRUCTION WAGE RATE REQUIREMENTS--SECONDARY SITE OF THE WORK (MAY 2014)

(a)(1) The offeror shall notify the Government if the offeror intends to perform work at any secondary site of the work, as defined in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Construction Wage Rate Requirements, of this solicitation.

(2) If the offeror is unsure if a planned work site satisfies the criteria for a secondary site of the work, the offeror shall request a determination from the Contracting Officer.

(b)(1) If the wage determination provided by the Government for work at the primary site of the work is not applicable to the secondary site of the work, the offeror shall request a wage determination from the Contracting Officer.

(2) The due date for receipt of offers will not be extended as a result of an offeror's request for a wage determination for a secondary site of the work.

(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
Mobile County, AL – 25.9%	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 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 **the Mobile Bar Channel located south of Dauphin Island and the Fort Morgan Peninsula, Mobile County, Alabama.**

(End of provision)

52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2014) ALTERNATE II (JUN 2009)

(a) Definitions. "Commercially available off-the-shelf (COTS) item," "construction material," "designated country construction material," "domestic construction material," and "foreign construction material," as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act-- Construction Materials Under Trade Agreements" (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers.

(1) When an offer includes foreign construction material, except foreign construction material from a designated country other than Bahrain, Mexico, or Oman that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic or designated country construction material other than Bahrainian, Mexican, or Omani construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or designated country construction material other than Bahrainian, Mexican, or Omani construction material. An offer based on use of the foreign construction material for which an exception was requested--

- (i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or
- (ii) May be accepted if revised during negotiations.

(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 (20%)** percent 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)

52.232-14 NOTICE OF AVAILABILITY OF PROGRESS PAYMENTS EXCLUSIVELY FOR SMALL BUSINESS CONCERNS (APR 1984)

The Progress Payments clause will be available only to small business concerns. Any bid conditioned upon inclusion of a progress payment clause in the resulting contract will be rejected as nonresponsive if the bidder is not a small business concern.

(End of clause)

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 **U.S. Army Corps of Engineers, Mobile District, Contracting Division, P.O. Box 2288 Mobile AL 36628-0001.**

(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)

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any FAR or DFARS provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

252.204-7008 COMPLIANCE WITH SAFEGUARDING COVERED DEFENSE INFORMATION CONTROLS (OCT 2016)

(a) Definitions. As used in this provision--  
Controlled technical information, covered contractor information system, covered defense information, cyber incident, information system, and technical information are defined in clause 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting.

(b) The security requirements required by contract clause 252.204-7012 shall be implemented for all covered defense information on all covered contractor information systems that support the performance of this contract.

(c) For covered contractor information systems that are not part of an information technology service or system operated on behalf of the Government (see 252.204-7012(b)(2))--

(1) By submission of this offer, the Offeror represents that it will implement the security requirements specified by National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (see <http://dx.doi.org/10.6028/NIST.SP.800-171>) that



are in effect at the time the solicitation is issued or as authorized by the contracting officer not later than December 31, 2017.

(2)(i) If the Offeror proposes to vary from any of the security requirements specified by NIST SP 800-171 that are in effect at the time the solicitation is issued or as authorized by the Contracting Officer, the Offeror shall submit to the Contracting Officer, for consideration by the DoD Chief Information Officer (CIO), a written explanation of—

(A) Why a particular security requirement is not applicable; or

(B) How an alternative but equally effective, security measure is used to compensate for the inability to satisfy a particular requirement and achieve equivalent protection.

(ii) An authorized representative of the DoD CIO will adjudicate offeror requests to vary from NIST SP 800-171 requirements in writing prior to contract award. Any accepted variance from NIST SP 800-171 shall be incorporated into the resulting contract.

(End of provision)

#### 252.215-7013 SUPPLIES AND SERVICES PROVIDED BY NONTRADITIONAL DEFENSE CONTRACTORS (JAN 2018)

Offerors are advised that in accordance with 10 U.S.C. 2380a, supplies and services provided by a nontraditional defense contractor, as defined in DFARS 212.001, may be treated as commercial items. The decision to apply commercial item procedures to the procurement of supplies and services from a nontraditional defense contractor does not require a commercial item determination and does not mean the supplies or services are commercial.

(End of provision)

#### 252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for --

(1) Furnishing all plant, labor, equipment, appliances, and materials; and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

(End of clause)

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### 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices;

(ii) The intention to submit an offer; or

(iii) The methods or factors used to calculate the prices offered.

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision \_\_\_\_\_ [insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) of this provision have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of Provision)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2007)

(a) Definitions. As used in this provision--"Lobbying contact" has the meaning provided at 2 U.S.C. 1602(8). The terms "agency," "influencing or attempting to influence," "officer or employee of an agency," "person," "reasonable compensation," and "regularly employed" are defined in the FAR clause of this solicitation entitled "Limitation on Payments to Influence Certain Federal Transactions" (52.203-12).

(b) Prohibition. The prohibition and exceptions contained in the FAR clause of this solicitation entitled "Limitation on Payments to Influence Certain Federal Transactions" (52.203-12) are hereby incorporated by reference in this provision.

(c) Certification. The offeror, by signing its offer, hereby certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on its behalf in connection with the awarding of this contract.

(d) Disclosure. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(e) Penalty. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by 31 U.S.C. 1352. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure required to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of provision)

52.203-18 PROHIBITION ON CONTRACTING WITH ENTITIES THAT REQUIRE CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS OR STATEMENTS-- REPRESENTATION (JAN 2017)

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

Internal confidentiality agreement or statement, subcontract, and subcontractor, are defined in the clause at 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements.

(b) In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in

subsequent appropriations acts (and as extended in continuing resolutions), Government agencies are not permitted to use funds appropriated (or otherwise made available) for contracts with an entity that requires employees or subcontractors of such entity seeking to report waste, fraud, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(c) The prohibition in paragraph (b) of this provision does not contravene requirements applicable to Standard Form 312, (Classified Information Nondisclosure Agreement), Form 4414 (Sensitive Compartmented Information Nondisclosure Agreement), or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(d) Representation. By submission of its offer, the Offeror represents that it will not require its employees or subcontractors to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting waste, fraud, or abuse related to the performance of a Government contract to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information (e.g., agency Office of the Inspector General).

(End of provision)

#### 52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (OCT 2014)

(a) Definition. "Women-owned business concern," as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (c)(1) of FAR 52.219-1, Small Business Program Representation, of this solicitation.] The offeror represents that it [ ] is a women-owned business concern.

(End of Provision)

#### 52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAR 2020)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is **237990**.

(2) The small business size standard is **\$30,000,000**.

(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)

## 52.204-16 COMMERCIAL AND GOVERNMENT ENTITY CODE REPORTING (JUL 2016)

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

Commercial and Government Entity (CAGE) code means—

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity; or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

(b) The Offeror shall enter its CAGE code in its offer with its name and address or otherwise include it prominently in its proposal. The CAGE code entered must be for that name and address. Enter "CAGE" before the number. The CAGE code is required prior to award.

(c) CAGE codes may be obtained via--

(1) Registration in the System for Award Management (SAM) at [www.sam.gov](http://www.sam.gov). If the Offeror is located in the United States or its outlying areas and does not already have a CAGE code assigned, the DLA Commercial and Government Entity (CAGE) Branch will assign a CAGE code as a part of the SAM registration process. SAM registrants located outside the United States and its outlying areas shall obtain a NCAGE code prior to registration in SAM (see paragraph (c)(3) of this provision).

(2) The DLA Commercial and Government Entity (CAGE) Branch. If registration in SAM is not required for the subject procurement, and the offeror does not otherwise register in SAM, an offeror located in the United States or its outlying areas may request that a CAGE code be assigned by submitting a request at <https://cage.dla.mil>.

(3) The appropriate country codification bureau. Entities located outside the United States and its outlying areas may obtain an NCAGE code by contacting the Codification Bureau in the foreign entity's country if that country is a member of NATO or a sponsored nation. NCAGE codes may be obtained from the NSPA at <https://eportal.nspa.nato.int/AC135Public/scage/CageList.aspx> if the foreign entity's country is not a member of NATO or a sponsored nation. Points of contact for codification bureaus, as well as additional information on obtaining NCAGE codes, are available at <http://www.nato.int/structur/AC/135/main/links/contacts.htm>.

(d) Additional guidance for establishing and maintaining CAGE codes is available at <https://cage.dla.mil>.

(e) When a CAGE Code is required for the immediate owner and/or the highest-level owner by 52.204-17 or 52.212-3(p), the Offeror shall obtain the respective CAGE Code from that entity to supply the CAGE Code to the Government.

(f) Do not delay submission of the offer pending receipt of a CAGE code.

(End of Provision)

#### 52.204-17 OWNERSHIP OR CONTROL OF OFFEROR (JULY 2016)

(a) Definitions. As used in this provision—

“Commercial and Government Entity (CAGE) code” means--

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity, or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

“Highest-level owner” means the entity that owns or controls an immediate owner of the offeror, or that owns or controls one or more entities that control an immediate owner of the offeror. No entity owns or exercises control of the highest level owner.

“Immediate owner” means an entity, other than the offeror, that has direct control of the offeror. Indicators of control include, but are not limited to one or more of the following: Ownership or interlocking management, identity of interests among family members, shared facilities and equipment, and the common use of employees.

(b) The Offeror represents that it [ ] has or [ ] does not have an immediate owner. If the Offeror has more than one immediate owner (such as a joint venture), then the Offeror shall respond to paragraph (c) and if applicable, paragraph (d) of this provision for each participant in the joint venture.

(c) If the Offeror indicates “has” in paragraph (b) of this provision, enter the following information:

Immediate owner CAGE code: \_\_\_\_\_

Immediate owner legal name: \_\_\_\_\_ (Do not use a “doing business as” name)

Is the immediate owner owned or controlled by another entity?:

Yes or  No.

(d) If the Offeror indicates “yes” in paragraph (c) of this provision, indicating that the immediate owner is owned or controlled by another entity, then enter the following information:

Highest level owner CAGE code: \_\_\_\_\_

Highest level owner legal name: \_\_\_\_\_ (Do not use a “doing business as” name)

(End of provision)

#### 52.204-20 PREDECESSOR OF OFFEROR (JULY 2016)

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

“Commercial and Government Entity (CAGE) code” means--

(1) An identifier assigned to entities located in the United States and its outlying areas by the Defense Logistics Agency (DLA) Contractor and Government Entity (CAGE) Branch to identify a commercial or government entity, or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

“Predecessor” means an entity that is replaced by a successor and includes any predecessors of the predecessor.

“Successor” means an entity that has replaced a predecessor by acquiring the assets and carrying out the affairs of the predecessor under a new name (often through acquisition or merger). The term “successor” does not include new offices/divisions of the same company that only changes its name. The extent of the responsibility of the successor for the liabilities of the predecessor may vary, depending on State law and specific circumstances.

(b) The Offeror represents that it  is or  is not a successor to a predecessor that held a Federal contract or grant within the last three years.

(c) If the Offeror has indicated “is” in paragraph (b) of this provision, enter the following information for all predecessors that held a Federal contract or grant within the last three years (if more than one predecessor, list in reverse chronological order):

Predecessor CAGE code: \_\_\_\_\_ (or mark “Unknown”).

Predecessor legal name: \_\_\_\_\_ . (Do not use a “doing business as” name).

(End of provision)

#### 52.204-24 REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (DEC 2019)

The Offeror shall not complete the representation in this provision if the Offeror has represented that it “does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument” in the provision at 52.204-26, Covered Telecommunications Equipment or Services--Representation, or in paragraph (v) of the provision at 52.212-3, Offeror Representations and Certifications--Commercial Items.

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

Covered telecommunications equipment or services, critical technology, and substantial or essential component have the meanings provided in clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) Prohibition. Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Contractors are not prohibited from providing--

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.

(d) Representation. The Offeror represents that it [ ] will, [ ] will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation.

(e) Disclosures. If the Offeror has represented in paragraph (d) of this provision that it “will” provide covered telecommunications equipment or services”, the Offeror shall provide the following information as part of the offer-

- (1) A description of all covered telecommunications equipment and services offered (include brand; model number, such as original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable);
- (2) Explanation of the proposed use of covered telecommunications equipment and services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b) of this provision;
- (3) For services, the entity providing the covered telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known); and
- (4) For equipment, the entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)

#### 52.204-26 COVERED TELECOMMUNICATIONS EQUIPMENT OR SERVICES - REPRESENTATION (DEC 2019)

- (a) Definitions. As used in this provision, “covered telecommunications equipment or services” has the meaning provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.
- (b) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.
- (c) Representation. The Offeror represents that it [ \_\_\_ ] does, [ \_\_\_ ] does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

(End of provision)

#### 52.209-2 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS - REPRESENTATION (NOV 2015)

- (a) Definitions. “Inverted domestic corporation” and “subsidiary” have the meaning given in the clause of this contract entitled Prohibition on Contracting with Inverted Domestic Corporations (52.209-10).
- (b) Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with either an inverted domestic corporation, or a subsidiary of an inverted



domestic corporation, unless the exception at 9.108-2(b) applies or the requirement is waived in accordance with the procedures at 9.108-4.

(c) Representation. The offeror represents that—

(1) It  is,  is not an inverted domestic corporation; and

(2) It  is,  is not a subsidiary of an inverted domestic corporation.

(End of provision)

#### 52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (OCT 2018)

(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 (FAPIIS) 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)

#### 52.209-11 REPRESENTATION BY CORPORATIONS REGARDING DELINQUENT TAX LIABILITY OR A FELONY CONVICTION UNDER ANY FEDERAL LAW (FEB 2016)

- (a) As required by sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts, the Government will not enter into a contract with any corporation that--
- (1) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless an agency has considered suspension or debarment of the corporation and made a determination that suspension or debarment is not necessary to protect the interests of the Government; or
  - (2) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered

suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(b) The Offeror represents that--

(1) It is [ ] is not [ ] a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

(2) It is [ ] is not [ ] a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

(End of provision)

#### 52.209-13 VIOLATION OF ARMS CONTROL TREATIES OR AGREEMENTS— CERTIFICATION (JUN 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 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)

#### 52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (MAR 2020) ALTERNATE I (SEP 2015)

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

“Economically disadvantaged women-owned small business (EDWOSB) concern” means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127. It automatically qualifies as a women-owned small business concern eligible under the WOSB Program.

“Service-disabled veteran-owned small business concern”--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) “Service-disabled veteran” means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

“Small business concern” means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government

contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (b) of this provision.

“Small disadvantaged business concern, consistent with 13 CFR 124.1002,” means a small business concern under the size standard applicable to the acquisition, that--

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by--

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States, and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13 CFR 124.106) by individuals who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

“Veteran-owned small business concern” means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

“Women-owned small business concern” means a small business concern--

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

“Women-owned small business (WOSB) concern eligible under the WOSB Program (in accordance with 13 CFR part 127),” means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States.

(b)(1) The North American Industry Classification System (NAICS) code for this acquisition is **237990**.

(2) The small business size standard is **\$30,000,000**.

(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.

(c) Representations.

(1) The offeror represents as part of its offer that it  is,  is not a small business concern.

(2) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it  is,  is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it  is,  is not a women-owned small business concern.

(4) Women-owned small business (WOSB) concern eligible under the WOSB Program. [Complete only if the offeror represented itself as a women-owned small business concern in paragraph (c)(3) of this provision.] The offeror represents as part of its offer that—

(i) It  is,  is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It  is,  is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(4)(i) of this provision is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture. [The offeror shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: \_\_\_\_\_.] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(5) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the offeror represented itself as a women-owned small business concern eligible under the WOSB Program in (c)(4) of this provision.] The offeror represents as part of its offer that--

(i) It  is,  is not an EDWOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It  is,  is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(5)(i) of this provision is accurate for each EDWOSB concern participating in the joint venture. [The offeror shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: \_\_\_\_\_.] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it  is,  is not a veteran-owned small business concern.

(7) [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(6) of this provision.] The offeror represents as part of its offer that is  is,  is not a service-disabled veteran-owned small business concern.

(8) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, as part of its offer, that –

(i) It  is,  is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR part 126; and

(ii) It  is,  is not a HUBZone joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(8)(i) of this provision is accurate for each HUBZone small business concern participating in the HUBZone joint venture. [The offeror shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: \_\_\_\_\_.] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

(9) [Complete if offeror represented itself as disadvantaged in paragraph (c)(2) of this provision.] The offeror shall check the category in which its ownership falls:

Black American.

Hispanic American.

Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, Republic of Palau, Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

Individual/concern, other than one of the preceding.

(d) Notice.



(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a business concern that is small, HUBZone small, small disadvantaged, service-disabled veteran-owned small, economically disadvantaged women-owned small, or women-owned small eligible under the WOSB Program in order to obtain a contract to be awarded under the preference programs established pursuant to section 8, 9, 15, 31, and 36 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall --

- (i) Be punished by imposition of fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of Provision)

#### 52.219-2 EQUAL LOW BIDS (OCT 1995)

- (a) This provision applies to small business concerns only.
- (b) The bidder's status as a labor surplus area (LSA) concern may affect entitlement to award in case of tie bids. If the bidder wishes to be considered for this priority, the bidder must identify, in the following space, the LSA in which the costs to be incurred on account of manufacturing or production (by the bidder or the first-tier subcontractors) amount to more than 50 percent of the contract price.

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(c) Failure to identify the labor surplus area as specified in paragraph (b) of this provision will preclude the bidder from receiving priority consideration. If the bidder is awarded a contract as a result of receiving priority consideration under this provision and would not have otherwise received award, the bidder shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

(End of Provision)

52.223-22 PUBLIC DISCLOSURE OF GREENHOUSE GAS EMISSIONS AND  
REDUCTION GOALS--REPRESENTATION (DEC 2016)

(a) This representation shall be completed if the Offeror received \$7.5 million or more in Federal contract awards in the prior Federal fiscal year. The representation is optional if the Offeror received less than \$7.5 million in Federal contract awards in the prior Federal fiscal year.

(b) Representation. [Offeror is to check applicable blocks in paragraphs (b)(1) and (2).]

(1) The Offeror (itself or through its immediate owner or highest-level owner) [ ] does, [ ] does not publicly disclose greenhouse gas emissions, i.e., make available on a publicly accessible Web site the results of a greenhouse gas inventory, performed in accordance with an accounting standard with publicly available and consistently applied criteria, such as the Greenhouse Gas Protocol Corporate Standard.

(2) The Offeror (itself or through its immediate owner or highest-level owner) [ ] does, [ ] does not publicly disclose a quantitative greenhouse gas emissions reduction goal, i.e., make available on a publicly available Web site a target to reduce absolute emissions or emissions intensity by a specific quantity or percentage.

(3) A publicly accessible Web site includes the Offeror's own Web site or a recognized, third-party greenhouse gas emissions reporting program.

(c) If the Offeror checked “does” in paragraphs (b)(1) or (b)(2) of this provision, respectively, the Offeror shall provide the publicly accessible Web site(s) where greenhouse gas emissions and/or reduction goals are reported: \_\_\_\_\_.

(End of provision)

52.225-25 PROHIBITION ON CONTRACTING WITH ENTITIES ENGAGING IN  
CERTAIN ACTIVITIES OR TRANSACTIONS RELATING TO IRAN—REPRESENTATION  
AND CERTIFICATION (JUN 2020)

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

Person--

(1) Means--

(i) A natural person;

(ii) A corporation, business association, partnership, society, trust, financial institution, insurer, underwriter, guarantor, and any other business organization, any other nongovernmental entity, organization, or group, and any governmental entity operating as a business enterprise; and

(iii) Any successor to any entity described in paragraph (1)(ii) of this definition; and

(2) Does not include a government or governmental entity that is not operating as a business enterprise.

Sensitive technology--

(1) Means hardware, software, telecommunications equipment, or any other technology that is to be used specifically--

(i) To restrict the free flow of unbiased information in Iran; or

(ii) To disrupt, monitor, or otherwise restrict speech of the people of Iran; and

(2) Does not include information or informational materials the export of which the President does not have the authority to regulate or prohibit pursuant to section 203(b)(3) of the International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

(b) The offeror shall email questions concerning sensitive technology to the Department of State at [CISADA106@state.gov](mailto:CISADA106@state.gov).

(c) Except as provided in paragraph (d) of this provision or if a waiver has been granted in accordance with Federal Acquisition Regulation (FAR) 25.703-4, by submission of its offer, the offeror—

(1) Represents, to the best of its knowledge and belief, that the offeror does not export any sensitive technology to the government of Iran or any entities or individuals owned or controlled by, or acting on behalf or at the direction of, the government of Iran;

(2) Certifies that the offeror, or any person owned or controlled by the offeror, does not engage in any activities for which sanctions may be imposed under section 5 of the Iran Sanctions Act. These sanctioned activities are in the areas of development of the petroleum resources of Iran, production of refined petroleum products in Iran, sale and provision of refined petroleum products to Iran, and contributing to Iran's ability to acquire or develop certain weapons or technologies; and

(3) Certifies that the offeror, and any person owned or controlled by the offeror, does not knowingly engage in any transaction that exceeds the threshold at FAR 25.703-2(a)(2) with Iran's Revolutionary Guard Corps or any of its officials, agents, or affiliates, the property and interests in property of which are blocked pursuant to the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.) (see OFAC's Specially Designated Nationals and Blocked Person List at <https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>).

(d) Exception for trade agreements. The representation requirement of paragraph (c)(1) and the certification requirements of paragraphs (c)(2) and (c)(3) of this provision do not apply if—

(1) This solicitation includes a trade agreements notice or certification (e.g., 52.225-4, 52.225-6, 52.225-12, 52.225-24, or comparable agency provision); and

(2) The offeror has certified that all the offered products to be supplied are designated country end products or designated country construction material.

(End of provision)

#### 252.203-7005 REPRESENTATION RELATING TO COMPENSATION OF FORMER DOD OFFICIALS (NOV 2011)

(a) Definition. Covered DoD official is defined in the clause at 252.203-7000, Requirements Relating to Compensation of Former DoD Officials.

(b) By submission of this offer, the offeror represents, to the best of its knowledge and belief, that all covered DoD officials employed by or otherwise receiving compensation from the offeror, and who are expected to undertake activities on behalf of the offeror for any resulting contract, are presently in compliance with all post-employment restrictions covered by 18 U.S.C. 207, 41 U.S.C. 2101-2107, and 5 CFR parts 2637 and 2641, including Federal Acquisition Regulation 3.104-2.

(End of provision)

#### 252.204-7007 ALTERNATE A, ANNUAL REPRESENTATIONS AND CERTIFICATIONS (APR 2020)

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.

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

\_\_\_ (iii) 252.225-7020, Trade Agreements Certificate.

\_\_\_ Use with Alternate I.

\_\_\_ (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)

252.204-7016 COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES - REPRESENTATION (DEC 2019)

(a) Definitions. As used in this provision, covered defense telecommunications equipment or services has the meaning provided in the clause 252.204-7018, Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services.

(b) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered defense telecommunications equipment or services”.

(c) Representation. The Offeror represents that it [ ] does, [ ] does not provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.

(End of provision)

## 252.204-7017 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES--REPRESENTATION (DEC 2019)

The Offeror is not required to complete the representation in this provision if the Offeror has represented in the provision at 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation, that it “does not provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.”

(a) Definitions. Covered defense telecommunications equipment or services, covered mission, critical technology, and substantial or essential component, as used in this provision, have the meanings given in the 252.204-7018 clause, Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services, of this solicitation.

(b) Prohibition. Section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91) prohibits agencies from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) at <https://www.sam.gov> for entities that are excluded when providing any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless a waiver is granted.

(d) Representation. If in its annual representations and certifications in SAM the Offeror has represented in paragraph (c) of the provision at 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation, that it “does” provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument, then the Offeror shall complete the following additional representation:

The Offeror represents that it [ ] will [ ] will not provide covered defense telecommunications equipment or services as a part of its offered products or services to DoD in the performance of any award resulting from this solicitation.

(e) Disclosures. If the Offeror has represented in paragraph (d) of this provision that it “will provide covered defense telecommunications equipment or services,” the Offeror shall provide the following information as part of the offer:

(1) A description of all covered defense telecommunications equipment and services offered (include brand or manufacturer; product, such as model number, original equipment

manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable).

(2) An explanation of the proposed use of covered defense telecommunications equipment and services and any factors relevant to determining if such use would be permissible under the prohibition referenced in paragraph (b) of this provision.

(3) For services, the entity providing the covered defense telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known).

(4) For equipment, the entity that produced or provided the covered defense telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)

252.225-7973 PROHIBITION ON THE PROCUREMENT OF FOREIGN-MADE  
UNMANNED AIRCRAFT SYSTEMS - REPRESENTATION (MAY 2020) (DEVIATION  
2020-O0015)

(a) Prohibition. Section 848 of the National Defense Authorization Act for Fiscal Year 2020 (Pub. L. 116-92) prohibits DoD from using or procuring -

- (1) An unmanned aircraft system (UAS), or any related services or equipment, that -
- (i) Is manufactured in the People's Republic of China or by an entity domiciled in the People's Republic of China;
  - (ii) Uses flight controllers, radios, data transmission devices, cameras, or gimbals manufactured in the People's Republic of China or by an entity domiciled in the People's Republic of China;
  - (iii) Uses a ground control system or operating software developed in the People's Republic of China or by an entity domiciled in the People's Republic of China; or
  - (iv) Uses network connectivity or data storage located in, or administered by an entity domiciled in, the People's Republic of China; or

(2) A system for the detection or identification of a UAS, or any related services or equipment, that is manufactured-

- (i) In the People's Republic of China; or
- (ii) By an entity domiciled in the People's Republic of China.

(b) Representations. By submission of its offer, the Offeror represents that it will not provide or use -



(1) A UAS, as described in paragraph (a)(1) of this provision, in the performance of any contract, subcontract, or other contractual instrument resulting from this solicitation; and

(2) A system for the detection or identification of a UAS, as described in paragraph (a)(2) of this provision, in the performance of any contract, subcontract, or other contractual instrument resulting from this solicitation.

(End of provision)

252.225-7974 REPRESENTATION REGARDING BUSINESS OPERATIONS WITH THE  
MADURO REGIME (DEVIATION 2020-O0005) (FEB 2020)

(a) Definitions. As used in this provision -

Agency or instrumentality of the government of Venezuela means an agency or instrumentality of a foreign state as defined in section 28 U.S.C. 1603(b), with each reference in such section to "a foreign state" deemed to be a reference to "Venezuela".

Business operations means engaging in commerce in any form, including acquiring, developing, maintaining, owning, selling, possessing, leasing, or operating equipment, facilities, personnel, products, services, personal property, real property, or any other apparatus of business or commerce.

Government of Venezuela means the government of any political subdivision of Venezuela, and any agency or instrumentality of the government of Venezuela.

Person means -

(1) A natural person, corporation, company, business association, partnership, society, trust, or any other nongovernmental entity, organization, or group;

(2) Any governmental entity or instrumentality of a government, including a multilateral development institution (as defined in section 1701(c)(3) of the International Financial Institutions Act (22 U.S.C. 262r(c)(3)); and

(3) Any successor, subunit, parent entity, or subsidiary of, or any entity under common ownership or control with, any entity described in paragraphs (1) or (2) of this definition.

(b) Prohibition. In accordance with section 890 of the National Defense Authorization Act for Fiscal Year 2020 (Pub. L. 116-92), contracting officers are prohibited from entering into a contract for the procurement of products or services with any person that has business operations with an authority of the government of Venezuela that is not recognized as the legitimate

government of Venezuela by the United States Government, unless the person has a valid license to operate in Venezuela issued by the Office of Foreign Assets Control of the Department of the Treasury.

(c) Representation. By submission of its offer, the Offeror represents that the Offeror -

(1) Does not have any business operations with an authority of the Maduro regime or the government of Venezuela that is not recognized as the legitimate government of Venezuela by the United States Government; or

(2) Has a valid license to operate in Venezuela issued by the Office of Foreign Assets Control of the Department of the Treasury.

(End of provision)

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## CLAUSES INCORPORATED BY FULL TEXT

### 52.202-1 DEFINITIONS (JUN 2020)

When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless--

- (a) The solicitation, or amended solicitation, provides a different definition;
- (b) The contracting parties agree to a different definition;
- (c) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning;
- (d) The word or term is defined in FAR part 31, for use in the cost principles and procedures; or
- (e) The word or term defines an acquisition-related threshold, and if the threshold is adjusted for inflation as set forth in FAR 1.109(a), then the changed threshold applies throughout the remaining term of the contract, unless there is a subsequent threshold adjustment; see FAR 1.109(d).

(End of clause)

### 52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

- (1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and
- (2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

- (1) To pursue the same remedies as in a breach of the contract; and
- (2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person

concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)  
(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

#### 52.203-5 COVENANT AGAINST CONTINGENT FEES (MAY 2014)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

#### 52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (JUN 2020)

(a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such subcontractors directly to the Government of any item or process (including computer software) made or furnished by the subcontractor under this contract or under any follow-on production contract.

(b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

(c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this contract which exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation 2.101 on the date of subcontract award.

(End of clause)

#### 52.203-7 ANTI-KICKBACK PROCEDURES. (JUN 2020)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) 41 U.S.C. chapter 87, Kickbacks, prohibits any person from--

- (1) Providing or attempting to provide or offering to provide any kickback;
  - (2) Soliciting, accepting, or attempting to accept any kickback; or
  - (3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.
- (c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.
- (2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Attorney General.
  - (3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.
  - (4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.
  - (5) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c)(5) but excepting paragraph (c)(1) of this clause, in all subcontracts under this contract that exceed the threshold specified in Federal Acquisition Regulation 3.502-2(i) on the date of subcontract award.

(End of clause)

#### 52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

- (a) If the Government receives information that a contractor or a person has violated 41 U.S.C. 2102-2104, Restrictions on Obtaining and Disclosing Certain Information, the Government may-
- (1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct violates 41 U.S.C. 2102 for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct punishable under 41 U.S.C. 2105(a).

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

#### 52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of 41 U.S.C. 2102 or 2103, as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee

otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the statute by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

#### 52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 2020)

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

Agency means executive agency as defined in Federal Acquisition Regulation (FAR) 2.101.

Covered Federal action means any of the following actions:

- (1) Awarding any Federal contract.
- (2) Making any Federal grant.
- (3) Making any Federal loan.

- (4) Entering into any cooperative agreement.
- (5) Extending, continuing, renewing, amending, or modifying any Federal contract, grant, loan, or cooperative agreement.

Indian tribe and tribal organization have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b) and include Alaskan Natives.

Influencing or attempting to influence means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

Local government means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

Officer or employee of an agency includes the following individuals who are employed by an agency:

- (1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.
- (2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.
- (3) A special Government employee, as defined in section 202, Title 18, United States Code.
- (4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

Person means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and are permitted by other Federal law.

Reasonable compensation means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

Reasonable payment means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

Recipient includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and are permitted by other Federal law.

Regularly employed means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

State means a State of the United States, the District of Columbia, or an outlying area of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibition. 31 U.S.C. 1352 prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal actions. In accordance with 31 U.S.C. 1352, the Contractor shall not use appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the award of this contract the extension, continuation, renewal, amendment, or modification of this contract.

(1) The term appropriated funds does not include profit or fee from a covered Federal action.

(2) To the extent the Contractor can demonstrate that the Contractor has sufficient monies, other than Federal appropriated funds, the Government will assume that these other monies were spent for any influencing activities that would be unallowable if paid for with Federal appropriated funds.

(c) Exceptions. The prohibition in paragraph (b) of this clause does not apply under the following conditions:

(1) Agency and legislative liaison by Contractor employees.

(i) Payment of reasonable compensation made to an officer or employee of the Contractor if the payment is for agency and legislative liaison activities not directly related to this contract. For



purposes of this paragraph, providing any information specifically requested by an agency or Congress is permitted at any time.

(ii) Participating with an agency in discussions that are not related to a specific solicitation for any covered Federal action, but that concern--

(A) The qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities; or

(B) The application or adaptation of the person's products or services for an agency's use.

(iii) Providing prior to formal solicitation of any covered Federal action any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(iv) Participating in technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(v) Making capability presentations prior to formal solicitation of any covered Federal action by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub.L. 95-507, and subsequent amendments.

(2) Professional and technical services. (i) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(ii) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(iii) As used in paragraph (c)(2) of this clause, "professional and technical services" are limited to advice and analysis directly applying any professional or technical discipline (for examples, see FAR 3.803(a)(2)(iii)).

(iv) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(3) Only those communications and services expressly authorized by paragraphs (c)(1) and (2) of this clause are permitted.

(d) Disclosure. (1) If the Contractor did not submit OMB Standard Form LLL, Disclosure of Lobbying Activities, with its offer, but registrants under the Lobbying Disclosure Act of 1995 have subsequently made a lobbying contact on behalf of the Contractor with respect to this contract, the Contractor shall complete and submit OMB Standard Form LLL to provide the name of the lobbying registrants, including the individuals performing the services.

(2) If the Contractor did submit OMB Standard Form LLL disclosure pursuant to paragraph (d) of the provision at FAR 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions, and a change occurs that affects Block 10 of the OMB Standard Form LLL (name and address of lobbying registrant or individuals performing services), the Contractor shall, at the end of the calendar quarter in which the change occurs, submit to the Contracting Officer within 30 days an updated disclosure using OMB Standard Form LLL.

(e) Penalties. (1) Any person who makes an expenditure prohibited under paragraph (b) of this clause or who fails to file or amend the disclosure to be filed or amended by paragraph (d) of this clause shall be subject to civil penalties as provided for by 31 U.S.C.1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(g) Subcontracts. (1) The Contractor shall obtain a declaration, including the certification and disclosure in paragraphs (c) and (d) of the provision at FAR 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions, from each person requesting or receiving a subcontract exceeding \$150,000 under this contract. The Contractor or subcontractor that awards the subcontract shall retain the declaration.

(2) A copy of each subcontractor disclosure form (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall, at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor, submit to the Contracting Officer within 30 days a copy of all disclosures. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(3) The Contractor shall include the substance of this clause, including this paragraph (g), in any subcontract that exceeds the threshold specified in FAR 3.808 on the date of subcontract award.

(End of clause)

## 52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT (JUN 2020)

(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 Governmentwide 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 Governmentwide 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)

#### 52.203-17 CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (JUN 2020)

(a) This contract and employees working on this contract will be subject to the whistleblower rights and remedies in the pilot program on Contractor employee whistleblower protections

established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and FAR 3.908.

(b) The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the Federal Acquisition Regulation.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts over the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award.

(End of clause)

#### 52.203-19 PROHIBITION ON REQUIRING CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS OR STATEMENTS (JAN 2017)

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

“Internal confidentiality agreement or statement” means a confidentiality agreement or any other written statement that the contractor requires any of its employees or subcontractors to sign regarding nondisclosure of contractor information, except that it does not include confidentiality agreements arising out of civil litigation or confidentiality agreements that contractor employees or subcontractors sign at the behest of a Federal agency.

“Subcontract” means any contract as defined in subpart 2.1 entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

“Subcontractor” means any supplier, distributor, vendor, or firm (including a consultant) that furnishes supplies or services to or for a prime contractor or another subcontractor.

(b) The Contractor shall not require its employees or subcontractors to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting waste, fraud, or abuse related to the performance of a Government contract to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information (e.g., agency Office of the Inspector General).

(c) The Contractor shall notify current employees and subcontractors that prohibitions and restrictions of any preexisting internal confidentiality agreements or statements covered by this clause, to the extent that such prohibitions and restrictions are inconsistent with the prohibitions of this clause, are no longer in effect.

(d) The prohibition in paragraph (b) of this clause does not contravene requirements applicable to Standard Form 312 (Classified Information Nondisclosure Agreement), Form 4414 (Sensitive Compartmented Information Nondisclosure Agreement), or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(e) In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015, (Pub. L. 113-235), and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions) use of funds appropriated (or otherwise made available) is prohibited, if the Government determines that the Contractor is not in compliance with the provisions of this clause.

(f) The Contractor shall include the substance of this clause, including this paragraph (f), in subcontracts under such contracts.

(End of clause)

#### 52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER (MAY 2011)

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

Postconsumer fiber means—

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

(b) The Contractor is required to submit paper documents, such as offers, letters, or reports that are printed or copied double-sided on paper containing at least 30 percent postconsumer fiber, whenever practicable, when not using electronic commerce methods to submit information or data to the Government.

(End of clause)

#### 52.204-7 SYSTEM FOR AWARD MANAGEMENT (OCT 2018) ALTERNATE I (OCT 2018)

(a) Definitions. As used in this provision--Electronic Funds Transfer (EFT) indicator means a



four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the commercial, nonprofit, or Government entity to establish additional System for Award Management records for identifying alternative EFT accounts (see subpart 32.11) for the same entity.

Registered in the System for Award Management (SAM) database means that--

(1) The Offeror has entered all mandatory information, including the unique entity identifier and the EFT indicator, if applicable, the Commercial and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14) into the SAM database;

(2) The offeror has completed the Core, Assertions, and Representations and Certifications, and Points of Contact sections of the registration in the SAM database;

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The offeror will be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and

(4) The Government has marked the record ``Active". Unique entity identifier means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See [www.sam.gov](http://www.sam.gov) for the designated entity for establishing unique entity identifiers.

(b)(1) By submission of an offer, the Offeror acknowledges the requirement that a prospective awardee shall be registered in the SAM database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation. If registration prior to award is not possible, the awardee shall be registered in the SAM database within 30 days after award or before three days prior to submission of the first invoice, whichever occurs first.

(2) The Offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation ``Unique Entity Identifier" followed by the unique entity identifier that identifies the Offeror's name and address exactly as stated in the offer. The Offeror also shall enter its EFT indicator, if applicable. The unique entity identifier will be used by the Contracting Officer to verify that the Offeror is registered in the SAM database.

(c) If the Offeror does not have a unique entity identifier, it should contact the entity designated at [www.sam.gov](http://www.sam.gov) for establishment of the unique entity identifier directly to obtain one. The Offeror should be prepared to provide the following information:

(1) Company legal business name.

(2) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(3) Company physical street address, city, state, and Zip Code.

- (4) Company mailing address, city, state and Zip Code (if separate from physical).
  - (5) Company telephone number.
  - (6) Date the company was started.
  - (7) Number of employees at your location.
  - (8) Chief executive officer/key manager.
  - (9) Line of business (industry).
  - (10) Company headquarters name and address (reporting relationship within your entity).
- (d) If the Offeror does not become registered in the SAM database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.
- (e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.
- (f) Offerors may obtain information on registration at <https://www.acquisition.gov>.
- (End of clause)

#### 52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (JUN 2020)

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

Executive means officers, managing partners, or any other employees in management positions.

First-tier subcontract means a subcontract awarded directly by the Contractor for the purpose of acquiring supplies or services (including construction) for performance of a prime contract. It does not include the Contractor's supplier agreements with vendors, such as long-term arrangements for materials or supplies that benefit multiple contracts and/or the costs of which are normally applied to a Contractor's general and administrative expenses or indirect costs.

Month of award means the month in which a contract is signed by the Contracting Officer or the month in which a first-tier subcontract is signed by the Contractor.

Total compensation means the cash and noncash dollar value earned by the executive during the Contractor's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

- (1) Salary and bonus.
  - (2) Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Financial Accounting Standards Board's Accounting Standards Codification (FASB ASC) 718, Compensation-Stock Compensation.
  - (3) Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
  - (4) Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.
  - (5) Above-market earnings on deferred compensation which is not tax-qualified.
  - (6) Other compensation, if the aggregate value of all such other compensation (e.g., severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.
- (b) Section 2(d)(2) of the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. 109-282), as amended by section 6202 of the Government Funding Transparency Act of 2008 (Pub. L. 110-252), requires the Contractor to report information on subcontract awards. The law requires all reported information be made public, therefore, the Contractor is responsible for notifying its subcontractors that the required information will be made public.
- (c) Nothing in this clause requires the disclosure of classified information.
- (d)(1) Executive compensation of the prime contractor. As a part of its annual registration requirement in the System for Award Management (SAM) database (FAR provision 52.204-7), the Contractor shall report the names and total compensation of each of the five most highly compensated executives for its preceding completed fiscal year, if—
- (i) In the Contractor's preceding fiscal year, the Contractor received—
    - (A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and
    - (B) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and
  - (ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To

determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>).

(2) First-tier subcontract information. Unless otherwise directed by the contracting officer, or as provided in paragraph (g) of this clause, by the end of the month following the month of award of a first-tier subcontract with a value of \$30,000 or more, the Contractor shall report the following information at <http://www.fsr.gov> for that first-tier subcontract. (The Contractor shall follow the instructions at <http://www.fsr.gov> to report the data.)

(i) Unique entity identifier for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has a parent company.

(ii) Name of the subcontractor.

(iii) Amount of the subcontract award.

(iv) Date of the subcontract award.

(v) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.

(vi) Subcontract number (the subcontract number assigned by the Contractor).

(vii) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(viii) Subcontractor's primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(ix) The prime contract number, and order number if applicable.

(x) Awarding agency name and code.

(xi) Funding agency name and code.

(xii) Government contracting office code.

(xiii) Treasury account symbol (TAS) as reported in FPDS.

(xiv) The applicable North American Industry Classification System code (NAICS).

(3) Executive compensation of the first-tier subcontractor. Unless otherwise directed by the Contracting Officer, by the end of the month following the month of award of a first-tier subcontract with a value of \$30,000 or more, and annually thereafter (calculated from the prime contract award date), the Contractor shall report the names and total compensation of each of the five most highly compensated executives for that first-tier subcontractor for the first-tier subcontractor's preceding completed fiscal year at <http://www.fsr.gov>, if—

(i) In the subcontractor's preceding fiscal year, the subcontractor received—

(A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(B) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/excomp.htm>.)

(e) The Contractor shall not split or break down first-tier subcontract awards to a value below the threshold specified in FAR 4.1403(a), on the date of subcontract award, to avoid the reporting requirements in paragraph (d) of this clause.

(f) The Contractor is required to report information on a first-tier subcontract covered by paragraph (d) when the subcontract is awarded. Continued reporting on the same subcontract is not required unless one of the reported data elements changes during the performance of the subcontract. The Contractor is not required to make further reports after the first-tier subcontract expires.

(g)(1) If the Contractor in the previous tax year had gross income, from all sources, under \$300,000, the Contractor is exempt from the requirement to report subcontractor awards.

(2) If a subcontractor in the previous tax year had gross income from all sources under \$300,000, the Contractor does not need to report awards for that subcontractor.

(h) The FSRS database at <http://www.fsrs.gov> will be prepopulated with some information from SAM and FPDS databases. If FPDS information is incorrect, the contractor should notify the contracting officer. If the SAM database information is incorrect, the contractor is responsible for correcting this information.

(End of clause)

#### 52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE (OCT 2018)

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

Electronic Funds Transfer (EFT) indicator means a four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the commercial, nonprofit, or Government entity to establish additional System for Award Management (SAM) records for identifying alternative EFT accounts (see subpart 32.11) for the same entity.

Registered in the System for Award Management (SAM) database means that--

(1) The Contractor has entered all mandatory information, including the unique entity identifier and the EFT indicator (if applicable), the Commercial and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14), into the SAM database;

(2) The Contractor has completed the Core, Assertions, Representations and Certifications, and Points of Contact sections of the registration in the SAM database;

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The Contractor will be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and

(4) The Government has marked the record ``Active".

System for Award Management (SAM) means the primary Government repository for prospective Federal awardee and Federal awardee information and the centralized Government system for certain contracting, grants, and other assistance-related processes. It includes—

(1) Data collected from prospective Federal awardees required for the conduct of business with the Government;

(2) Prospective contractor-submitted annual representations and certifications in accordance with FAR subpart 4.12; and

(3) Identification of those parties excluded from receiving Federal contracts, certain subcontracts, and certain types of Federal financial and non-financial assistance and benefits.

Unique entity identifier means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See [www.sam.gov](http://www.sam.gov) for the designated entity for establishing unique entity identifiers.

(b) If the solicitation for this contract contained the provision 52.204-7 with its Alternate I, and the Contractor was unable to register prior to award, the Contractor shall be registered in SAM within 30 days after award or before three days prior to submission of the first invoice, whichever occurs first.

(c) The Contractor shall maintain registration in SAM during contract performance and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement. The Contractor is responsible for the currency, accuracy and completeness of the data

within SAM, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in SAM after the initial registration, the Contractor is required to review and update on an annual basis, from the date of initial registration or subsequent updates, its information in SAM to ensure it is current, accurate and complete. Updating information in SAM does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(d)(1)(i) If a Contractor has legally changed its business name or "doing business as" name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to--

(A) Change the name in SAM;

(B) Comply with the requirements of subpart 42.12 of the FAR; and

(C) Agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor shall provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (d)(1)(i) of this clause, or fails to perform the agreement at paragraph (d)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the SAM information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the SAM record to reflect an assignee for the purpose of assignment of claims (see FAR subpart 32.8, Assignment of Claims). Assignees shall be separately registered in SAM. Information provided to the Contractor's SAM record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the EFT clause of this contract.

(3) The Contractor shall ensure that the unique entity identifier is maintained with the entity designated at [www.sam.gov](http://www.sam.gov) for establishment of the unique entity identifier throughout the life of the contract. The Contractor shall communicate any change to the unique entity identifier to the Contracting Officer within 30 days after the change, so an appropriate modification can be issued to update the data on the contract. A change in the unique entity identifier does not necessarily require a novation be accomplished.

(e) Contractors may obtain additional information on registration and annual confirmation requirements at <https://www.sam.gov>.

(End of clause)

52.204-18 COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE  
(JUL 2016)

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

Commercial and Government Entity (CAGE) code means--

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity; or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

(b) Contractors shall ensure that the CAGE code is maintained throughout the life of the contract. For contractors registered in the System for Award Management (SAM), the DLA Commercial and Government Entity (CAGE) Branch shall only modify data received from SAM in the CAGE master file if the contractor initiates those changes via update of its SAM registration. Contractors undergoing a novation or change-of-name agreement shall notify the contracting officer in accordance with subpart 42.12. The contractor shall communicate any change to the CAGE code to the contracting officer within 30 days after the change, so that a modification can be issued to update the CAGE code on the contract.

(c) Contractors located in the United States or its outlying areas that are not registered in SAM shall submit written change requests to the DLA Commercial and Government Entity (CAGE) Branch. Requests for changes shall be provided at <https://cage.dla.mil>. Change requests to the CAGE master file are accepted from the entity identified by the code.

(d) Contractors located outside the United States and its outlying areas that are not registered in SAM shall contact the appropriate National Codification Bureau (points of contact available at <http://www.nato.int/structur/AC/135/main/links/contacts.htm>) or NSPA at <https://eportal.nspa.nato.int/AC135Public/scage/CageList.aspx> to request CAGE changes.

(e) Additional guidance for maintaining CAGE codes is available at <https://cage.dla.mil>.

(End of Clause)

52.204-19 INCORPORATION BY REFERENCE OF REPRESENTATIONS AND  
CERTIFICATIONS (DEC 2014)



The Contractor's representations and certifications, including those completed electronically via the System for Award Management (SAM), are incorporated by reference into the contract.

(End of clause)

#### 52.204-21 BASIC SAFEGUARDING OF COVERED CONTRACTOR INFORMATION SYSTEMS (JUN 2016)

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

Covered contractor information system means an information system that is owned or operated by a contractor that processes, stores, or transmits Federal contract information.

Federal contract information means information, not intended for public release, that is provided by or generated for the Government under a contract to develop or deliver a product or service to the Government, but not including information provided by the Government to the public (such as on public Web sites) or simple transactional information, such as necessary to process payments.

Information means any communication or representation of knowledge such as facts, data, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual (Committee on National Security Systems Instruction (CNSSI) 4009).

Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information (44 U.S.C. 3502).

Safeguarding means measures or controls that are prescribed to protect information systems.

(b) Safeguarding requirements and procedures.

(1) The Contractor shall apply the following basic safeguarding requirements and procedures to protect covered contractor information systems. Requirements and procedures for basic safeguarding of covered contractor information systems shall include, at a minimum, the following security controls:

(i) Limit information system access to authorized users, processes acting on behalf of authorized users, or devices (including other information systems).

(ii) Limit information system access to the types of transactions and functions that authorized users are permitted to execute.

(iii) Verify and control/limit connections to and use of external information systems.

(iv) Control information posted or processed on publicly accessible information systems.

- (v) Identify information system users, processes acting on behalf of users, or devices.
  - (vi) Authenticate (or verify) the identities of those users, processes, or devices, as a prerequisite to allowing access to organizational information systems.
  - (vii) Sanitize or destroy information system media containing Federal Contract Information before disposal or release for reuse.
  - (viii) Limit physical access to organizational information systems, equipment, and the respective operating environments to authorized individuals.
  - (ix) Escort visitors and monitor visitor activity; maintain audit logs of physical access; and control and manage physical access devices.
  - (x) Monitor, control, and protect organizational communications (i.e., information transmitted or received by organizational information systems) at the external boundaries and key internal boundaries of the information systems.
  - (xi) Implement subnetworks for publicly accessible system components that are physically or logically separated from internal networks.
  - (xii) Identify, report, and correct information and information system flaws in a timely manner.
  - (xiii) Provide protection from malicious code at appropriate locations within organizational information systems.
  - (xiv) Update malicious code protection mechanisms when new releases are available.
  - (xv) Perform periodic scans of the information system and real-time scans of files from external sources as files are downloaded, opened, or executed.
- (2) Other requirements. This clause does not relieve the Contractor of any other specific safeguarding requirements specified by Federal agencies and departments relating to covered contractor information systems generally or other Federal safeguarding requirements for controlled unclassified information (CUI) as established by Executive Order 13556.
- (c) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (c), in subcontracts under this contract (including subcontracts for the acquisition of commercial items, other than commercially available off-the-shelf items), in which the subcontractor may have Federal contract information residing in or transiting through its information system.

(End of clause)

**52.204-23 PROHIBITION ON CONTRACTING FOR HARDWARE, SOFTWARE, AND SERVICES DEVELOPED OR PROVIDED BY KASPERSKY LAB AND OTHER COVERED ENTITIES (JUL 2018)**

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

Covered article means any hardware, software, or service that--

- (1) Is developed or provided by a covered entity;
- (2) Includes any hardware, software, or service developed or provided in whole or in part by a covered entity; or
- (3) Contains components using any hardware or software developed in whole or in part by a covered entity.

Covered entity means--

- (1) Kaspersky Lab;
- (2) Any successor entity to Kaspersky Lab;
- (3) Any entity that controls, is controlled by, or is under common control with Kaspersky Lab; or
- (4) Any entity of which Kaspersky Lab has a majority ownership.

(b) Prohibition. Section 1634 of Division A of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91) prohibits Government use of any covered article. The Contractor is prohibited from--

- (1) Providing any covered article that the Government will use on or after October 1, 2018; and
- (2) Using any covered article on or after October 1, 2018, in the development of data or deliverables first produced in the performance of the contract.

(c) Reporting requirement. (1) In the event the Contractor identifies a covered article provided to the Government during contract performance, or the Contractor is notified of such by a subcontractor at any tier or any other source, the Contractor shall report, in writing, to the Contracting Officer or, in the case of the Department of Defense, to the website at <https://dibnet.dod.mil/>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil/>.

(2) The Contractor shall report the following information pursuant to paragraph (c)(1) of this clause:

(i) Within 1 business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; brand; model number (Original Equipment Manufacturer (OEM) number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the report pursuant to paragraph (c)(1) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of a covered article, any reasons that led to the use or submission of the covered article, and any additional efforts that will be incorporated to prevent future use or submission of covered articles.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts, including subcontracts for the acquisition of commercial items.

(End of clause)

#### 52.204-25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2019)

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

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means--

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means--

- (1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;
- (2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled--
  - (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or
  - (ii) For reasons relating to regional stability or surreptitious listening;
- (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);
- (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);
- (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or
- (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in Federal Acquisition Regulation 4.2104.

(c) Exceptions. This clause does not prohibit contractors from providing--

- (1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) Reporting requirement.

(1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

## 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUN 2020)

(a) Definition. Commercially available off-the-shelf (COTS) item, as used in this clause--

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

(i) A commercial item (as defined in paragraph (1) of the definition in 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.

(b) The Government suspends or debar Contractors to protect the Government's interests. Other than a subcontract for a commercially available off-the-shelf item, the Contractor shall not enter into any subcontract, in excess of the threshold specified in FAR 9.405-2(b) on the date of subcontract award, with a Contractor that is debarred, suspended, or proposed for debarment by any executive agency unless there is a compelling reason to do so.

(c) The Contractor shall require each proposed subcontractor whose subcontract will exceed the threshold specified in FAR 9.405-2(b) on the date of subcontract award, other than a subcontractor providing a commercially available off-the-shelf item, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(d) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party (other than a subcontractor providing a commercially available off-the-shelf item) that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the System for Award Management (SAM) Exclusions). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being listed with an exclusion in SAM.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its being listed with an exclusion in SAM.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(e) Subcontracts. Unless this is a contract for the acquisition of commercial items, the Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for the identification of the parties), in each subcontract that--

(1) Exceeds the threshold specified in FAR 9.405-2(b) on the date of subcontract award; and

(2) Is not a subcontract for commercially available off-the-shelf items.

(End of clause)

52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING  
RESPONSIBILITY MATTERS (OCT 2018)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the System for Award Management database via <https://www.acquisition.gov>.

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consists of two segments--

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by--

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIIS is automatically transferred after a waiting period of 14 calendar days, except for--

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the non-public segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.



(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(End of clause)

#### 52.209-10 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS. (NOV 2015)

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

Inverted domestic corporation means a foreign incorporated entity that meets the definition of an inverted domestic corporation under 6 U.S.C. 395(b), applied in accordance with the rules and definitions of 6 U.S.C. 395(c).

Subsidiary means an entity in which more than 50 percent of the entity is owned--

(1) Directly by a parent corporation; or

(2) Through another subsidiary of a parent corporation.

(b) If the contractor reorganizes as an inverted domestic corporation or becomes a subsidiary of an inverted domestic corporation at any time during the period of performance of this contract, the Government may be prohibited from paying for Contractor activities performed after the date when it becomes an inverted domestic corporation or subsidiary. The Government may seek any available remedies in the event the Contractor fails to perform in accordance with the terms and conditions of the contract as a result of Government action under this clause.

(c) Exceptions to this prohibition are located at 9.108-2.

(d) In the event the Contractor becomes either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation during contract performance, the Contractor shall give written notice to the Contracting Officer within five business days from the date of the inversion event.

(End of clause)

#### 52.210-1 MARKET RESEARCH (JUN 2020)

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

Commercial item and nondevelopmental item have the meaning contained in Federal Acquisition Regulation 2.101.

(b) Before awarding subcontracts over the simplified acquisition threshold for items other than commercial items, the Contractor shall conduct market research to--

(1) Determine if commercial items or, to the extent commercial items suitable to meet the agency's needs are not available, nondevelopmental items are available that--

(i) Meet the agency's requirements;

(ii) Could be modified to meet the agency's requirements; or

(iii) Could meet the agency's requirements if those requirements were modified to a reasonable extent; and

(2) Determine the extent to which commercial items or nondevelopmental items could be incorporated at the component level.

(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 **twenty (20)** 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 **270 days after notice to proceed**.

\*The time stated for completion shall include final cleanup of the premises.

(End of clause)

#### 52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of **\$6,206.00** for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

#### 52.211-13 TIME EXTENSIONS (SEP 2000)

Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

(End of clause)

#### 52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the Contracting Officer, is justified.

(End of clause)

#### 52.214-26 AUDIT AND RECORDS--SEALED BIDDING (JUN 2020)

(a) As used in this clause, records includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Certified cost or pricing data. If the Contractor has been required to submit certified cost or pricing data in connection with the pricing of any modification to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the

accuracy, completeness, and currency of the certified cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

- (1) The proposal for the modification;
- (2) The discussions conducted on the proposal(s), including those related to negotiating;
- (3) Pricing of the modification; or
- (4) Performance of the modification.

(c) Comptroller General. In the case of pricing any modification, the Comptroller General of the United States, or an authorized representative, shall have the same rights as specified in paragraph (b) of this clause and also the right to interview any current employee regarding such transactions.

(d) Availability. The Contractor shall make available at its office at all reasonable times the materials described in reproduction, until 3 years after final payment under this contract, or for any other period specified in Subpart 4.7 of the Federal Acquisition Regulation (FAR). FAR Subpart 4.7, Contractor Records Retention, in effect on the date of this contract, is incorporated by reference in its entirety and made a part of this contract.

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement.

(2) Records pertaining to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to the performance of this contract shall be made available until disposition of such appeals, litigation, or claims.

(e) Subcontracts. The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (e), in all subcontracts expected to exceed the threshold for submission of certified cost or pricing data in FAR 15.403-4(a)(1) on the date of subcontract award.

(End of clause)

#### 52.214-27 PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA - MODIFICATIONS - SEALED BIDDING. (JUN 2020)

(a) This clause shall become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for the submission of certified cost or pricing data in Federal Acquisition Regulation (FAR) 15.403-4(a)(1) on the date of execution of the modification, except that this clause does not apply to a modification if an exception under FAR 15.403-1(b) applies.

(b) If any price, including profit, negotiated in connection with any modification under this clause, was increased by any significant amount because

(1) the Contractor or a subcontractor furnished certified cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data;

(2) a subcontractor or prospective subcontractor furnished the Contractor certified cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data; or

(3) any of these parties furnished data of any description that were not accurate, the price shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) above.

(c) Any reduction in the contract price under paragraph (b) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which:

(1) the actual subcontract; or

(2) the actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective certified cost or pricing data.

(d) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made:

(1) the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current certified cost or pricing data had been submitted;

(ii) The Contracting Officer should have known that the certified cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer;

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract; or

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2) Except as prohibited by subdivision (d)(2)(ii) of this clause:

(i) an offset in an amount determined appropriate by the Contracting Officer based upon the

facts shall be allowed against the amount of a contract price reduction if:

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the certified cost or pricing data were available before the date of agreement on the price of the contract (or price of the modification) and that the data were not submitted before such date.

(ii) An offset shall not be allowed if:

(A) The understated data was known by the Contractor to be understated when the Certificate of Current Cost or Pricing Data was signed; or (B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the date of agreement on price.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid:

(1) Interest compounded daily, as required by 26 U.S.C. 6622, on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

(2) A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted certified cost or pricing data which were incomplete, inaccurate, or noncurrent.

(End of clause)

#### 52.214-28 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA - MODIFICATIONS - SEALED BIDDING. (JUN 2020)

(a) (a) The requirements of paragraphs (b) and (c) of this clause shall—

(1) Become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of certified cost or pricing data in Federal Acquisition Regulation (FAR) [15.403-4\(a\)\(1\)](#) on the date of execution of the modification; and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of certified cost or pricing data in FAR [15.403-4](#)(a)(1), on the date of agreement on price or the date of award, whichever is later, or before pricing any subcontract modifications involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of certified cost or pricing data in FAR [15.403-4](#)(a)(1), the Contractor shall require the subcontractor to submit certified cost or pricing data (actually or by specific identification in writing), as part of the subcontractor's proposal in accordance with FAR [15.408](#), Table [15-2](#) (to include any information reasonably required to explain the subcontractor's estimating process such as the judgmental factors applied and the mathematical or other methods used in the estimate, including those used in projecting from known data, and the nature and amount of any contingencies included in the price), unless an exception under FAR [15.403-1](#)(b) applies. If the threshold for submission of certified cost or pricing data specified in FAR [15.403-4](#)(a)(1) is adjusted for inflation as set forth in FAR 1.109(a), then pursuant to FAR 1.109(d) the changed threshold applies throughout the remaining term of the contract, unless there is a subsequent threshold adjustment.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR subsection [15.406-2](#) that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that, when entered into, exceeds the threshold for submission of certified cost or pricing data in FAR [15.403-4](#)(a)(1).

(End of clause)

#### 52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (MAR 2020)

(a) Definitions. See 13 CFR 125.6(e) for definitions of terms used in paragraph (d).

(b) Evaluation preference.

(1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except--

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference; and

(ii) Otherwise successful offers from small business concerns.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) When the two highest rated offerors are a HUBZone small business concern and a large business, and the evaluated offer of the HUBZone small business concern is equal to the evaluated offer of the large business after considering the price evaluation preference, award will be made to the HUBZone small business concern.

(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraphs (d) and (e) of this clause do not apply if the offeror has waived the evaluation preference.

\_\_\_ Offeror elects to waive the evaluation preference.

(d) Limitations on subcontracting. The Contractor shall spend--

(1) For services (except construction), at least 50 percent of the cost of personnel for contract performance on its own employees or employees of other HUBZone small business concerns;

(2) For supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, on the concern or other HUBZone small business concerns;

(3) For general construction--

(i) At least 15 percent of the cost of contract performance to be incurred for personnel on its own employees;

(ii) At least 50 percent of the cost of the contract performance to be incurred for personnel on its own employees or on a combination of its own employees and employees of HUBZone small business concern subcontractors;

(iii) No more than 50 percent of the cost of contract performance to be incurred for personnel on concerns that are not HUBZone small business concerns; or

(4) For construction by special trade contractors--

(i) At least 25 percent of the cost of contract performance to be incurred on its own employees;

(ii) At least 50 percent of the cost of the contract performance to be incurred for personnel on its own employees or on a combination of its own employees and employees of HUBZone small business concern subcontractors;

(iii) No more than 50 percent of the cost of contract performance to be incurred for personnel on concerns that are not HUBZone small business concerns.

(e) A HUBZone joint venture agrees that the aggregate of the HUBZone small business concerns to the joint venture, not each concern separately, will perform the applicable percentage of work requirements.



(f) Notice. The HUBZone small business offeror acknowledges that a prospective HUBZone awardee must be a HUBZone small business concern at the time of award of this contract. The HUBZone offeror shall provide the Contracting Officer a copy of the notice required by 13 CFR 126.501 if material changes occur before contract award that could affect its HUBZone eligibility. If the apparently successful HUBZone offeror is not a HUBZone small business concern at the time of award of this contract, the Contracting Officer will proceed to award to the next otherwise successful HUBZone small business concern or other offeror.

(End of clause)

#### 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2018)

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

HUBZone small business concern means a small business concern, certified by the Small Business Administration, that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern, consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that--

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by--

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States; and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13.CFR 124.106) by individuals, who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern--

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(b) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(c) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

(d)(1) The Contractor may accept a subcontractor's written representations of its size and socioeconomic status as a small business, small disadvantaged business, veteran-owned small business, service-disabled veteran-owned small business, or a women-owned small business if the subcontractor represents that the size and socioeconomic status representations with its offer are current, accurate, and complete as of the date of the offer for the subcontract.

(2) The Contractor may accept a subcontractor's representations of its size and socioeconomic status as a small business, small disadvantaged business, veteran-owned small business, service-disabled veteran-owned small business, or a women-owned small business in the System for Award Management (SAM) if--

(i) The subcontractor is registered in SAM; and

(ii) The subcontractor represents that the size and socioeconomic status representations made in SAM are current, accurate and complete as of the date of the offer for the subcontract.

(3) The Contractor may not require the use of SAM for the purposes of representing size or socioeconomic status in connection with a subcontract.

(4) In accordance with 13 CFR 121.411, 124.1015, 125.29, 126.900, and 127.700, a contractor acting in good faith is not liable for misrepresentations made by its subcontractors regarding the subcontractor's size or socioeconomic status.

(5) The Contractor shall confirm that a subcontractor representing itself as a HUBZone small business concern is certified by SBA as a HUBZone small business concern by accessing the System for Award Management database or by contacting the SBA. Options for contacting the SBA include--

(i) HUBZone small business database search application Web page at [http://dsbs.sba.gov/dsbs/search/dsp\\_searchhubzone.cfm](http://dsbs.sba.gov/dsbs/search/dsp_searchhubzone.cfm); or <http://www.sba.gov/hubzone>;

(ii) In writing to the Director/HUB, U.S. Small Business Administration, 409 3rd Street, SW., Washington DC 20416; or

(iii) The SBA HUBZone Help Desk at [hubzone@sba.gov](mailto:hubzone@sba.gov).

(End of clause)

#### 52.219-16 LIQUIDATED DAMAGES - SUBCONTRACTING PLAN (JAN 1999)

(a) Failure to make a good faith effort to comply with the subcontracting plan, as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan. If, at contract completion or, in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in

accordance with the clause in this contract entitled "Small Business Subcontracting Plan," the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by the commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled Disputes, from any final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

(End of clause)

#### 52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (MAY 2020)

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

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (d) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall rerepresent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, upon occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts--

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall rerepresent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, when the Contracting Officer explicitly requires it for an order issued under a multiple-award contract.

(d) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code(s) assigned to this contract. The small business size standard corresponding to this NAICS code(s) can be found at <https://www.sba.gov/document/support--table-size-standards>.

(e) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(f) Except as provided in paragraph (h) of this clause, the Contractor shall make the representation(s) required by paragraph (b) and (c) of this clause by validating or updating all its representations in the Representations and Certifications section of the System for Award Management (SAM) and its other data in SAM, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause, or with its offer for an order (see paragraph (c) of this clause), that the data have been validated or updated, and provide the date of the validation or update.

(g) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (f) or (h) of this clause.

(h) If the Contractor does not have representations and certifications in SAM, or does not have a representation in SAM for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

(1) The Contractor represents that it [ ] is, [ ] is not a small business concern under NAICS Code 237990 assigned to the resultant contract under solicitation number W9127820B0003.

(2) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [ ] is, [ ] is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [ ] is, [ ] is not a women-owned small business concern.

(4) Women-owned small business (WOSB) concern eligible under the WOSB Program. [Complete only if the Contractor represented itself as a women-owned small business concern in paragraph (h)(3) of this clause.] The Contractor represents that--

(i) It [ ] is, [ ] is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [ ] is, [ ] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(4)(i) of this clause is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture.

[The Contractor shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: .] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(5) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the Contractor represented itself as a women-owned small business concern eligible under the WOSB Program in (h)(4) of this clause.] The Contractor represents that--

(i) It [ ] is, [ ] is not an EDWOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [ ] is, [ ] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(5)(i) of this clause is accurate for each EDWOSB concern participating in the joint venture. [The Contractor shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: .] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(6) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [ ] is, [ ] is not a veteran-owned small business concern.

(7) [Complete only if the Contractor represented itself as a veteran-owned small business concern in paragraph (h)(6) of this clause.] The Contractor represents that it [ ] is, [ ] is not a service-disabled veteran-owned small business concern.

(8) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that--

(i) It [ ] is, [ ] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR part 126; and

(ii) It [ ] is, [ ] is not a HUBZone joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (h)(8)(i) of this clause is accurate for each HUBZone small business concern participating in the HUBZone joint venture. [The Contractor shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: .] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

[Contractor to sign and date and insert authorized signer's name and title.]

(End of clause)

#### 52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)

If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

(End of clause)

52.222-3 CONVICT LABOR (JUN 2003)

(a) Except as provided in paragraph (b) of this clause, the Contractor shall not employ in the performance of this contract any person undergoing a sentence of imprisonment imposed by any court of a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands.

(b) The Contractor is not prohibited from employing persons--

(1) On parole or probation to work at paid employment during the term of their sentence;

(2) Who have been pardoned or who have served their terms; or

(3) Confined for violation of the laws of any of the States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

(i) The worker is paid or is in an approved work training program on a voluntary basis;

(ii) Representatives of local union central bodies or similar labor union organizations have been consulted;

(iii) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services;

(iv) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(v) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(End of clause)

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS - OVERTIME  
COMPENSATION. (MAY 2018)

(a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause.



In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate specified at 29 CFR 5.5(b)(2) per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards statute (found at 40 U.S.C. chapter 37). In accordance with the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. 2461 Note), the Department of Labor adjusts this civil monetary penalty for inflation no later than January 15 each year.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards statute.

(d) Payrolls and basic records.

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Construction Wage Rate Requirements statute.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts that may require or involve the employment of laborers and mechanics and require subcontractors to include these provisions in any such lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of clause)

## 52.222-6 CONSTRUCTION WAGE RATE REQUIREMENTS (AUG 2018)

(a) Definition.—“Site of the work”—

(1) Means—

(i) *The primary site of the work.* The physical place or places where the construction called for in the contract will remain when work on it is completed; and

(ii) *The secondary site of the work, if any.* Any other site where a significant portion of the building or work is constructed, provided that such site is—

(A) Located in the United States; and

(B) Established specifically for the performance of the contract or project;

(2) Except as provided in paragraph (3) of this definition, includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided—

(i) They are dedicated exclusively, or nearly so, to performance of the contract or project; and

(ii) They are adjacent or virtually adjacent to the “primary site of the work” as defined in paragraph (a)(1)(i), or the “secondary site of the work” as defined in paragraph (a)(1)(ii) of this definition;

(3) Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular Federal contract or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the Project site, are not included in the “site of the work.” Such permanent, previously established facilities are not a part of the “site of the work” even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of a contract.

(b)(1) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, or as may be incorporated for a secondary site of the work, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Any wage determination incorporated for a secondary site of the work shall be effective from the first day on which work under the contract was performed at that site and shall be incorporated without any adjustment in contract price or estimated cost. Laborers employed by the construction Contractor or construction subcontractor that are transporting portions of the building or work between the secondary site of the work and the primary site of the work shall be paid in accordance with the wage determination applicable to the primary site of the work.

(2) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Construction Wage Rate Requirements statute on behalf of laborers or mechanics

are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (e) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.

(3) Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

(4) The wage determination (including any additional classifications and wage rates conformed under paragraph (c) of this clause) and the Construction Wage Rate Requirements statute poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the primary site of the work and the secondary site of the work, if any, in a prominent and accessible place where it can be easily seen by the workers.

(c)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the:

Wage and Hour Division  
U.S. Department of Labor  
Washington, DC 20210

The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and

wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to paragraphs (c)(2) and (c)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(d) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(e) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Construction Wage Rate Requirements statute have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

#### 52.222-7 WITHHOLDING OF FUNDS (MAY 2014)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Construction Wage Rate Requirements statute prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

## 52.222-8 PAYROLLS AND BASIC RECORDS (AUG 2018)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) (Construction Wage Rate Requirement statute)), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Construction Wage Rate Requirements, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B), the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph(a) of this clause, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be obtained from the U.S. Department of Labor Wage and Hour Division website at <http://www.dol.gov/whd/forms/wh347.pdf>. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Contracting Officer, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a Prime Contractor to require a subcontractor to provide addresses and social security numbers to the Prime Contractor for its own records, without weekly submission to the Contracting Officer.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

#### 52.222-9 APPRENTICES AND TRAINEES (JUL 2005)

(a) Apprentices. (1) An apprentice will be permitted to work at less than the predetermined rate for the work performed when employed--

(i) Pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS) or with a State Apprenticeship Agency recognized by the OATELS; or

(ii) In the first 90 days of probationary employment as an apprentice in such an apprenticeship program, even though not individually registered in the program, if certified by the OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program.

(3) Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph (a)(1) of this clause, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

(5) Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(6) In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees.

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS). The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by OATELS.

(2) Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship

program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the OATELS shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed.

(3) In the event OATELS withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

#### 52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

#### 52.222-11 SUBCONTRACTS (LABOR STANDARDS) (MAY 2014)

(a) Definition. Construction, alteration or repair, as used in this clause, means all types of work done by laborers and mechanics employed by the construction Contractor or construction subcontractor on a particular building or work at the site thereof, including without limitation--

(1) Altering, remodeling, installation (if appropriate) on the site of the work of items fabricated off-site;

(2) Painting and decorating;

(3) Manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work;

(4) Transportation of materials and supplies between the site of the work within the meaning of paragraphs (a)(1)(i) and (ii) of the "site of work" as defined in the FAR clause at 52.222-6, Construction Wage Rate Requirements of this contract, and a facility which is dedicated to the construction of the building or work and is deemed part of the site of the work within the meaning of paragraph (2) of the "site of work" definition; and



(5) Transportation of portions of the building or work between a secondary site where a significant portion of the building or work is constructed, which is part of the "site of work" definition in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Construction Wage Rate Requirements, and the physical place or places where the building or work will remain (paragraph (a)(1)(i) of the FAR clause at 52.222-6, in the "site of the work" definition).

(b) The Contractor shall insert in any subcontracts for construction, alterations and repairs within the United States the clauses entitled--

(1) Construction Wage Rate Requirements;

(2) Contract Work Hours and Safety Standards--Overtime Compensation (if the clause is included in this contract);

(3) Apprentices and Trainees;

(4) Payrolls and Basic Records;

(5) Compliance with Copeland Act Requirements;

(6) Withholding of Funds;

(7) Subcontracts (Labor Standards);

(8) Contract Termination--Debarment;

(9) Disputes Concerning Labor Standards;

(10) Compliance with Construction Wage Rate Requirements and Related Regulations; and

(11) Certification of Eligibility.

(c) The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor performing construction within the United States with all the contract clauses cited in paragraph (b).

(d)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Standard Form (SF) 1413, Statement and Acknowledgment, for each subcontract for construction within the United States, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (b) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(e) The Contractor shall insert the substance of this clause, including this paragraph (e) in all subcontracts for construction within the United States.

(End of clause)

#### 52.222-12 CONTRACT TERMINATION--DEBARMENT (MAY 2014)

A breach of the contract clauses entitled Construction Wage Rate Requirements, Contract Work Hours and Safety Standards--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Construction Wage Rate Requirements and Related Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

(End of clause)

#### 52.222-13 COMPLIANCE WITH CONSTRUCTION WAGE RATE REQUIREMENTS AND RELATED REGULATIONS (MAY 2014)

All rulings and interpretations of the Construction Wage Rate Requirements and related statutes contained in 29 CFR parts 1, 3, and 5 are hereby incorporated by reference in this contract.

(End of clause)

#### 52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

#### 52.222-15 CERTIFICATION OF ELIGIBILITY (MAY 2014)

(a) By entering into this contract, the Contractor certifies that neither it nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b)(2) or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b)(2) or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(End of clause)

#### 52.222-21 PROHIBITION OF SEGREGATED FACILITIES (APR 2015)

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

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at [www.dol.gov/ofccp/LGBT/LGBT\\_FAQs.html](http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html).

Segregated facilities means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at [www.dol.gov/ofccp/LGBT/LGBT\\_FAQs.html](http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html).

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

#### 52.222-26 EQUAL OPPORTUNITY (SEPT 2016)

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

Compensation means any payments made to, or on behalf of, an employee or offered to an applicant as remuneration for employment, including but not limited to salary, wages, overtime pay, shift differentials, bonuses, commissions, vacation and holiday pay, allowances, insurance and other benefits, stock options and awards, profit sharing, and retirement.

Compensation information means the amount and type of compensation provided to employees or offered to applicants, including, but not limited to, the desire of the Contractor to attract and retain a particular employee for the value the employee is perceived to add to the Contractor's profit or productivity; the availability of employees with like skills in the marketplace; market research about the worth of similar jobs in the relevant marketplace; job analysis, descriptions, and evaluations; salary and pay structures; salary surveys; labor union agreements; and Contractor decisions, statements and policies related to setting or altering employee compensation.

Essential job functions means the fundamental job duties of the employment position an individual holds. A job function may be considered essential if--

(1) The access to compensation information is necessary in order to perform that function or another routinely assigned business task; or

(2) The function or duties of the position include protecting and maintaining the privacy of employee personnel records, including compensation information.

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at [www.dol.gov/ofccp/LGBT/LGBT\\_FAQs.html](http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html).

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at [www.dol.gov/ofccp/LGBT/LGBT\\_FAQs.html](http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html).

United States means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b)(1) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(2) If the Contractor is a religious corporation, association, educational institution, or society, the requirements of this clause do not apply with respect to the employment of individuals of a particular religion to perform work connected with the carrying on of the Contractor's activities (41 CFR 60-1.5).

(c) (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(5)(i) The Contractor shall not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This prohibition against discrimination does not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

(ii) The Contractor shall disseminate the prohibition on discrimination in paragraph (c)(5)(i) of this clause, using language prescribed by the Director of the Office of Federal Contract Compliance Programs (OFCCP), to employees and applicants by--

(A) Incorporation into existing employee manuals or handbooks; and

(B) Electronic posting or by posting a copy of the provision in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(7) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(8) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed

in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(9) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(10) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(11) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(12) The Contractor shall take such action with respect to any subcontract or purchase order as the Director of OFCCP may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(d) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR part 60-1.

(End of clause)

#### 52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (APR 2015)

(a) Definitions. "Covered area" means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary" means the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

"Employer's identification number" means the Federal Social Security number used on the employer's quarterly Federal tax return, U.S. Treasury Department Form 941.

“Gender identity” has the meaning given by the Department of Labor’s Office of Federal Contract Compliance Programs, and is found at [www.dol.gov/ofccp/LGBT/LGBT\\_FAQs.html](http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html) .

“Minority” means --

- (1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- (2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);
- (3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and
- (4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

“Sexual orientation” has the meaning given by the Department of Labor’s Office of Federal Contract Compliance Programs, and is found at [www.dol.gov/ofccp/LGBT/LGBT\\_FAQs.html](http://www.dol.gov/ofccp/LGBT/LGBT_FAQs.html) .

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of \$10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.



(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and

employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.

(j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

(m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

(n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

(o) Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(End of clause)

#### 52.222-35 EQUAL OPPORTUNITY FOR VETERANS (JUN 2020)

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

"Active duty wartime or campaign badge veteran," "Armed Forces service medal veteran," "disabled veteran," "protected veteran," "qualified disabled veteran," and "recently separated veteran" have the meanings given at Federal Acquisition Regulation (FAR) 22.1301.

(b) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.

(c) Subcontracts. The Contractor shall insert the terms of this clause in subcontracts valued at or above the threshold specified in FAR 22.1303(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

#### 52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES (JUL 2020)

(a) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-741.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by the Contractor to employ and advance in employment qualified individuals with disabilities.

(b) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of the threshold specified in Federal Acquisition Regulation (FAR) 22.1408(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs of the U.S. Department of Labor, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

#### 52.222-37 EMPLOYMENT REPORTS ON VETERANS (JUN 2020)

(a) Definitions. As used in this clause, "active duty wartime or campaign badge veteran," "Armed Forces service medal veteran," "disabled veteran," "protected veteran," and "recently separated veteran," have the meanings given in Federal Acquisition Regulation (FAR) 22.1301.

(b) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The total number of employees in the contractor's workforce, by job category and hiring location, who are protected veterans (i.e., active duty wartime or campaign badge veterans, Armed Forces service medal veterans, disabled veterans, and recently separated veterans);

(2) The total number of new employees hired during the period covered by the report, and of the total, the number of protected veterans (i.e., active duty wartime or campaign badge veterans, Armed Forces service medal veterans, disabled veterans, and recently separated veterans); and

(3) The maximum number and minimum number of employees of the Contractor or subcontractor at each hiring location during the period covered by the report.

(c) The Contractor shall report the above items by filing the VETS-4212 "Federal Contractor Veterans' Employment Report" (see "VETS-4212 Federal Contractor Reporting" and "Filing Your VETS-4212 Report" at <http://www.dol.gov/vets/vets4212.htm>).

(d) The Contractor shall file VETS-4212 Reports no later than September 30 of each year.

(e) The employment activity report required by paragraphs (b)(2) and (b)(3) of this clause shall reflect total new hires, and maximum and minimum number of employees, during the most recent 12-month period preceding the ending date selected for the report. Contractors may select an ending date--

(1) As of the end of any pay period between July 1 and August 31 of the year the report is due; or

(2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(f) The number of veterans reported must be based on data known to the contractor when completing the VETS-4212. The contractor's knowledge of veterans status may be obtained in a variety of ways, including an invitation to applicants to self-identify (in accordance with 41 CFR 60-300.42), voluntary self-disclosure by employees, or actual knowledge of veteran status by the contractor. This paragraph does not relieve an employer of liability for discrimination under 38 U.S.C. 4212.

(g) The Contractor shall insert the terms of this clause in subcontracts valued at or above the threshold specified in FAR 22.1303(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary of Labor.

(End of Clause)

#### 52.222-40 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (DEC 2010)

(a) During the term of this contract, the Contractor shall post an employee notice, of such size and in such form, and containing such content as prescribed by the Secretary of Labor, in conspicuous places in and about its plants and offices where employees covered by the National Labor Relations Act engage in activities relating to the performance of the contract, including all

places where notices to employees are customarily posted both physically and electronically, in the languages employees speak, in accordance with 29 CFR 471.2(d) and (f).

(1) Physical posting of the employee notice shall be in conspicuous places in and about the Contractor's plants and offices so that the notice is prominent and readily seen by employees who are covered by the National Labor Relations Act and engage in activities related to the performance of the contract.

(2) If the Contractor customarily posts notices to employees electronically, then the Contractor shall also post the required notice electronically by displaying prominently, on any Web site that is maintained by the Contractor and is customarily used for notices to employees about terms and conditions of employment, a link to the Department of Labor's Web site that contains the full text of the poster. The link to the Department's Web site, as referenced in (b)(3) of this section, must read, "Important Notice about Employee Rights to Organize and Bargain Collectively with Their Employers."

(b) This required employee notice, printed by the Department of Labor, may be--

(1) Obtained from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW., Room N-5609, Washington, DC 20210, (202) 693-0123, or from any field office of the Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Provided by the Federal contracting agency if requested;

(3) Downloaded from the Office of Labor-Management Standards Web site at <http://www.dol.gov/olms/regs/compliance/EO13496.htm>; or

(4) Reproduced and used as exact duplicate copies of the Department of Labor's official poster.

(c) The required text of the employee notice referred to in this clause is located at Appendix A, Subpart A, 29 CFR Part 471.

(d) The Contractor shall comply with all provisions of the employee notice and related rules, regulations, and orders of the Secretary of Labor.

(e) In the event that the Contractor does not comply with the requirements set forth in paragraphs (a) through (d) of this clause, this contract may be terminated or suspended in whole or in part, and the Contractor may be suspended or debarred in accordance with 29 CFR 471.14 and subpart 9.4. Such other sanctions or remedies may be imposed as are provided by 29 CFR part 471, which implements Executive Order 13496 or as otherwise provided by law.

(f) Subcontracts. (1) The Contractor shall include the substance of this clause, including this paragraph (f), in every subcontract that exceeds \$10,000 and will be performed wholly or partially in the United States, unless exempted by the rules, regulations, or orders of the

Secretary of Labor issued pursuant to section 3 of Executive Order 13496 of January 30, 2009, so that such provisions will be binding upon each subcontractor.

(2) The Contractor shall not procure supplies or services in a way designed to avoid the applicability of Executive Order 13496 or this clause.

(3) The Contractor shall take such action with respect to any such subcontract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance.

(4) However, if the Contractor becomes involved in litigation with a subcontractor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

(End of clause)

#### 52.222-50 COMBATING TRAFFICKING IN PERSONS (JAN 2019)

(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.

Coercion means--

- (1) Threats of serious harm to or physical restraint against any person;
- (2) Any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or
- (3) The abuse or threatened abuse of the legal process.

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

- (1) 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.

Commercial sex act means any sex act on account of which anything of value is given to or received by any person.

Debt bondage means the status or condition of a debtor arising from a pledge by the debtor of his or her personal services or of those of a person under his or her control as a security for debt, if the value of those services as reasonably assessed is not applied toward the liquidation of the debt or the length and nature of those services are not respectively limited and defined.

Employee means an employee of the Contractor directly engaged in the performance of work under the contract who has other than a minimal impact or involvement in contract performance.

Forced Labor means knowingly providing or obtaining the labor or services of a person--

(1) By threats of serious harm to, or physical restraint against, that person or another person;

(2) By means of any scheme, plan, or pattern intended to cause the person to believe that, if the person did not perform such labor or services, that person or another person would suffer serious harm or physical restraint; or

(3) By means of the abuse or threatened abuse of law or the legal process.

Involuntary servitude includes a condition of servitude induced by means of--

(1) Any scheme, plan, or pattern intended to cause a person to believe that, if the person did not enter into or continue in such conditions, that person or another person would suffer serious harm or physical restraint; or

(2) The abuse or threatened abuse of the legal process.

Recruitment fees means fees of any type, including charges, costs, assessments, or other financial obligations, that are associated with the recruiting process, regardless of the time, manner, or location of imposition or collection of the fee.

(1) Recruitment fees include, but are not limited to, the following fees (when they are associated with the recruiting process) for--

(i) Soliciting, identifying, considering, interviewing, referring, retaining, transferring, selecting, training, providing orientation to, skills testing, recommending, or placing employees or potential employees;

(ii) Advertising;

(iii) Obtaining permanent or temporary labor certification, including any associated fees;



- (iv) Processing applications and petitions;
- (v) Acquiring visas, including any associated fees;
- (vi) Acquiring photographs and identity or immigration documents, such as passports, including any associated fees;
- (vii) Accessing the job opportunity, including required medical examinations and immunizations; background, reference, and security clearance checks and examinations; and additional certifications;
- (viii) An employer's recruiters, agents or attorneys, or other notary or legal fees;
- (ix) Language interpretation or translation, arranging for or accompanying on travel, or providing other advice to employees or potential employees;
- (x) Government-mandated fees, such as border crossing fees, levies, or worker welfare funds;
- (xi) Transportation and subsistence costs--
  - (A) While in transit, including, but not limited to, airfare or costs of other modes of transportation, terminal fees, and travel taxes associated with travel from the country of origin to the country of performance and the return journey upon the end of employment; and
  - (B) From the airport or disembarkation point to the worksite;
- (xii) Security deposits, bonds, and insurance; and
- (xiii) Equipment charges.
- (2) A recruitment fee, as described in the introductory text of this definition, is a recruitment fee, regardless of whether the payment is--
  - (i) Paid in property or money;
  - (ii) Deducted from wages;
  - (iii) Paid back in wage or benefit concessions;
  - (iv) Paid back as a kickback, bribe, in-kind payment, free labor, tip, or tribute; or
  - (v) Collected by an employer or a third party, whether licensed or unlicensed, including, but not limited to--
    - (A) Agents;
    - (B) Labor brokers;

- (C) Recruiters;
- (D) Staffing firms (including private employment and placement firms);
- (E) Subsidiaries/affiliates of the employer;
- (F) Any agent or employee of such entities; and
- (G) Subcontractors at all tiers.

Severe forms of trafficking in persons means--

- (1) Sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age; or
- (2) The recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

Sex trafficking means the recruitment, harboring, transportation, provision, or obtaining of a person for the purpose of a commercial sex act.

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 furnishes 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) Policy. The United States Government has adopted a policy prohibiting trafficking in persons including the trafficking-related activities of this clause. Contractors, contractor employees, and their agents shall not--

- (1) Engage in severe forms of trafficking in persons during the period of performance of the contract;
- (2) Procure commercial sex acts during the period of performance of the contract;
- (3) Use forced labor in the performance of the contract;
- (4) Destroy, conceal, confiscate, or otherwise deny access by an employee to the employee's identity or immigration documents, such as passports or drivers' licenses, regardless of issuing authority;

(5)(i) Use misleading or fraudulent practices during the recruitment of employees or offering of employment, such as failing to disclose, in a format and language understood by the employee or potential employee, basic information or making material misrepresentations during the recruitment of employees regarding the key terms and conditions of employment, including wages and fringe benefits, the location of work, the living conditions, housing and associated costs (if employer or agent provided or arranged), any significant costs to be charged to the employee or potential employee, and, if applicable, the hazardous nature of the work;

(ii) Use recruiters that do not comply with local labor laws of the country in which the recruiting takes place;

(6) Charge employees or potential employees recruitment fees;

(7)(i) Fail to provide return transportation or pay for the cost of return transportation upon the end of employment--

(A) For an employee who is not a national of the country in which the work is taking place and who was brought into that country for the purpose of working on a U.S. Government contract or subcontract (for portions of contracts performed outside the United States); or

(B) For an employee who is not a United States national and who was brought into the United States for the purpose of working on a U.S. Government contract or subcontract, if the payment of such costs is required under existing temporary worker programs or pursuant to a written agreement with the employee (for portions of contracts performed inside the United States); except that--

(ii) The requirements of paragraphs (b)(7)(i) of this clause shall not apply to an employee who is-

(A) Legally permitted to remain in the country of employment and who chooses to do so; or

(B) Exempted by an authorized official of the contracting agency from the requirement to provide return transportation or pay for the cost of return transportation;

(iii) The requirements of paragraph (b)(7)(i) of this clause are modified for a victim of trafficking in persons who is seeking victim services or legal redress in the country of employment, or for a witness in an enforcement action related to trafficking in persons. The contractor shall provide the return transportation or pay the cost of return transportation in a way that does not obstruct the victim services, legal redress, or witness activity. For example, the contractor shall not only offer return transportation to a witness at a time when the witness is still needed to testify. This paragraph does not apply when the exemptions at paragraph (b)(7)(ii) of this clause apply.

(8) Provide or arrange housing that fails to meet the host country housing and safety standards; or

(9) If required by law or contract, fail to provide an employment contract, recruitment agreement, or other required work document in writing. Such written work document shall be in

a language the employee understands. If the employee must relocate to perform the work, the work document shall be provided to the employee at least five days prior to the employee relocating. The employee's work document shall include, but is not limited to, details about work description, wages, prohibition on charging recruitment fees, work location(s), living accommodations and associated costs, time off, roundtrip transportation arrangements, grievance process, and the content of applicable laws and regulations that prohibit trafficking in persons.

(c) Contractor requirements. The Contractor shall--

(1) Notify its employees and agents of--

(i) The United States Government's policy prohibiting trafficking in persons, described in paragraph (b) of this clause; and

(ii) The actions that will be taken against employees or agents for violations of this policy. Such actions for employees may include, but are not limited to, removal from the contract, reduction in benefits, or termination of employment; and

(2) Take appropriate action, up to and including termination, against employees, agents, or subcontractors that violate the policy in paragraph (b) of this clause.

(d) Notification.

(1) The Contractor shall inform the Contracting Officer and the agency Inspector General immediately of--

(i) Any credible information it receives from any source (including host country law enforcement) that alleges a Contractor employee, subcontractor, subcontractor employee, or their agent has engaged in conduct that violates the policy in paragraph (b) of this clause (see also 18 U.S.C. 1351, Fraud in Foreign Labor Contracting, and 52.203-13(b)(3)(i)(A), if that clause is included in the solicitation or contract, which requires disclosure to the agency Office of the Inspector General when the Contractor has credible evidence of fraud); and

(ii) Any actions taken against a Contractor employee, subcontractor, subcontractor employee, or their agent pursuant to this clause.

(2) If the allegation may be associated with more than one contract, the Contractor shall inform the contracting officer for the contract with the highest dollar value.

(e) Remedies. In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (c), (d), (g), (h), or (i) of this clause may result in--

(1) Requiring the Contractor to remove a Contractor employee or employees from the performance of the contract;

(2) Requiring the Contractor to terminate a subcontract;

- (3) Suspension of contract payments until the Contractor has taken appropriate remedial action;
  - (4) Loss of award fee, consistent with the award fee plan, for the performance period in which the Government determined Contractor non-compliance;
  - (5) Declining to exercise available options under the contract;
  - (6) Termination of the contract for default or cause, in accordance with the termination clause of this contract; or
  - (7) Suspension or debarment.
- (f) Mitigating and aggravating factors. When determining remedies, the Contracting Officer may consider the following:
- (1) Mitigating factors. The Contractor had a Trafficking in Persons compliance plan or an awareness program at the time of the violation, was in compliance with the plan, and has taken appropriate remedial actions for the violation, that may include reparation to victims for such violations.
  - (2) Aggravating factors. The Contractor failed to abate an alleged violation or enforce the requirements of a compliance plan, when directed by the Contracting Officer to do so.
- (g) Full cooperation. (1) The Contractor shall, at a minimum--
- (i) Disclose to the agency Inspector General information sufficient to identify the nature and extent of an offense and the individuals responsible for the conduct;
  - (ii) Provide timely and complete responses to Government auditors' and investigators' requests for documents;
  - (iii) Cooperate fully in providing reasonable access to its facilities and staff (both inside and outside the U.S.) to allow contracting agencies and other responsible Federal agencies to conduct audits, investigations, or other actions to ascertain compliance with the Trafficking Victims Protection Act of 2000 (22 U.S.C. chapter 78), E.O. 13627, or any other applicable law or regulation establishing restrictions on trafficking in persons, the procurement of commercial sex acts, or the use of forced labor; and
  - (iv) Protect all employees suspected of being victims of or witnesses to prohibited activities, prior to returning to the country from which the employee was recruited, and shall not prevent or hinder the ability of these employees from cooperating fully with Government authorities.
- (2) The requirement for full cooperation does not foreclose any Contractor rights arising in law, the FAR, or the terms of the contract. It does not--

- (i) Require the Contractor to waive its attorney-client privilege or the protections afforded by the attorney work product doctrine;
- (ii) Require any officer, director, owner, employee, or agent of the Contractor, including a sole proprietor, to waive his or her attorney client privilege or Fifth Amendment rights; or
- (iii) Restrict the Contractor from--
  - (A) Conducting an internal investigation; or
  - (B) Defending a proceeding or dispute arising under the contract or related to a potential or disclosed violation.
- (h) Compliance plan. (1) This paragraph (h) applies to any portion of the contract that--
  - (i) Is for supplies, other than commercially available off-the-shelf items, acquired outside the United States, or services to be performed outside the United States; and
  - (ii) Has an estimated value that exceeds \$500,000.
- (2) The Contractor shall maintain a compliance plan during the performance of the contract that is appropriate--
  - (i) To the size and complexity of the contract; and
  - (ii) To the nature and scope of the activities to be performed for the Government, including the number of non-United States citizens expected to be employed and the risk that the contract or subcontract will involve services or supplies susceptible to trafficking in persons.
- (3) Minimum requirements. The compliance plan must include, at a minimum, the following:
  - (i) An awareness program to inform contractor employees about the Government's policy prohibiting trafficking-related activities described in paragraph (b) of this clause, the activities prohibited, and the actions that will be taken against the employee for violations. Additional information about Trafficking in Persons and examples of awareness programs can be found at the Web site for the Department of State's Office to Monitor and Combat Trafficking in Persons at <http://www.state.gov/j/tip/>.
  - (ii) A process for employees to report, without fear of retaliation, activity inconsistent with the policy prohibiting trafficking in persons, including a means to make available to all employees and potential employees the hotline phone number of the Global Human Trafficking Hotline at 1-844-888-FREE and its email address at [help@befree.org](mailto:help@befree.org).
  - (iii) A recruitment and wage plan that only permits the use of recruitment companies with trained employees, prohibits charging recruitment fees to the employee or potential employee, and ensures that wages meet applicable host-country legal requirements or explains any variance.

(iv) A housing plan, if the Contractor or subcontractor intends to provide or arrange housing, that ensures that the housing meets host-country housing and safety standards.

(v) Procedures to prevent agents and subcontractors at any tier and at any dollar value from engaging in trafficking in persons (including activities in paragraph (b) of this clause) and to monitor, detect, and terminate any agents, subcontracts, or subcontractor employees that have engaged in such activities.

(4) Posting.

(i) The Contractor shall post the relevant contents of the compliance plan, no later than the initiation of contract performance, at the workplace (unless the work is to be performed in the field or not in a fixed location) and on the Contractor's Web site (if one is maintained). If posting at the workplace or on the Web site is impracticable, the Contractor shall provide the relevant contents of the compliance plan to each worker in writing.

(ii) The Contractor shall provide the compliance plan to the Contracting Officer upon request.

(5) Certification. Annually after receiving an award, the Contractor shall submit a certification to the Contracting Officer that--

(i) It has implemented a compliance plan to prevent any prohibited activities identified at paragraph (b) of this clause and to monitor, detect, and terminate any agent, subcontract or subcontractor employee engaging in prohibited activities; and

(ii) After having conducted due diligence, either--

(A) To the best of the Contractor's knowledge and belief, neither it nor any of its agents, subcontractors, or their agents is engaged in any such activities; or

(B) If abuses relating to any of the prohibited activities identified in paragraph (b) of this clause have been found, the Contractor or subcontractor has taken the appropriate remedial and referral actions.

(i) Subcontracts. (1) The Contractor shall include the substance of this clause, including this paragraph (i), in all subcontracts and in all contracts with agents. The requirements in paragraph (h) of this clause apply only to any portion of the subcontract that--

(A) Is for supplies, other than commercially available off-the-shelf items, acquired outside the United States, or services to be performed outside the United States; and

(B) Has an estimated value that exceeds \$500,000.

(2) If any subcontractor is required by this clause to submit a certification, the Contractor shall require submission prior to the award of the subcontract and annually thereafter. The certification shall cover the items in paragraph (h)(5) of this clause.

(End of clause)

#### 52.222-54 EMPLOYMENT ELIGIBILITY VERIFICATION (OCT 2015)

(a) Definitions. As used in this clause--Commercially available off-the-shelf (COTS) item—

(1) Means any item of supply that is--

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

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

(iii) Offered to the Government, 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. Per 46 CFR 525.1(c)(2), "bulk cargo" means cargo that is loaded and carried in bulk onboard ship without mark or count, in a loose unpackaged form, having homogenous characteristics. Bulk cargo loaded into intermodal equipment, except LASH or Seabee barges, is subject to mark and count and, therefore, ceases to be bulk cargo.

Employee assigned to the contract means an employee who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), who is directly performing work, in the United States, under a contract that is required to include the clause prescribed at 22.1803. An employee is not considered to be directly performing work under a contract if the employee--

(1) Normally performs support work, such as indirect or overhead functions; and

(2) Does not perform any substantial duties applicable to the contract.

Subcontract means any contract, as defined in 2.101, entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

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

United States, as defined in 8 U.S.C. 1101(a)(38), means the 50 States, the District of Columbia, Puerto Rico, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands.

(b) Enrollment and verification requirements.



(1) If the Contractor is not enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall--

(i) Enroll. Enroll as a Federal Contractor in the E-Verify program within 30 calendar days of contract award;

(ii) Verify all new employees. Within 90 calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); and

(iii) Verify employees assigned to the contract. For each employee assigned to the contract, initiate verification within 90 calendar days after date of enrollment or within 30 calendar days of the employee's assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(2) If the Contractor is enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall use E-Verify to initiate verification of employment eligibility of--

(i) All new employees. (A) Enrolled 90 calendar days or more. The Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(B) Enrolled less than 90 calendar days. Within 90 calendar days after enrollment as a Federal Contractor in E-Verify, the Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(ii) Employees assigned to the contract. For each employee assigned to the contract, the Contractor shall initiate verification within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(3) If the Contractor is an institution of higher education (as defined at 20 U.S.C. 1001(a)); a State or local government or the government of a Federally recognized Indian tribe; or a surety performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond, the Contractor may choose to verify only employees assigned to the contract, whether existing employees or new hires. The Contractor shall follow the applicable verification requirements at (b)(1) or (b)(2), respectively, except that any requirement for verification of new employees applies only to new employees assigned to the contract.

(4) Option to verify employment eligibility of all employees. The Contractor may elect to verify all existing employees hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), rather than just those employees assigned to the contract. The Contractor shall initiate verification for each existing employee working in the

United States who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), within 180 calendar days of--

(i) Enrollment in the E-Verify program; or

(ii) Notification to E-Verify Operations of the Contractor's decision to exercise this option, using the contact information provided in the E-Verify program Memorandum of Understanding (MOU).

(5) The Contractor shall comply, for the period of performance of this contract, with the requirements of the E-Verify program MOU.

(i) The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Contractor's MOU and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Contractor will be referred to a suspension or debarment official.

(ii) During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the Contractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Contractor, then the Contractor must reenroll in E-Verify.

(c) Web site. Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Web site: <http://www.dhs.gov/E-Verify>.

(d) Individuals previously verified. The Contractor is not required by this clause to perform additional employment verification using E-Verify for any employee--

(1) Whose employment eligibility was previously verified by the Contractor through the E-Verify program;

(2) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or

(3) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD)-12, Policy for a Common Identification Standard for Federal Employees and Contractors.

(e) Subcontracts. The Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for identification of the parties), in each subcontract that--

(1) Is for--(i) Commercial or noncommercial services (except for commercial services that are part of the purchase of a COTS item (or an item that would be a COTS item, but for minor modifications), performed by the COTS provider, and are normally provided for that COTS item); or

(ii) Construction;

(2) Has a value of more than \$3,500; and

(3) Includes work performed in the United States.

(End of clause)

#### 52.222-55 MINIMUM WAGES UNDER EXECUTIVE ORDER 13658 (DEC 2015)

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

``United States" means the 50 states and the District of Columbia.

``Worker"--

(1) Means any person engaged in performing work on, or in connection with, a contract covered by Executive Order 13658, and --

(i) Whose wages under such contract are governed by the Fair Labor Standards Act (29 U.S.C. chapter 8), the Service Contract Labor Standards statute (41 U.S.C. chapter 67), or the Wage Rate Requirements (Construction) statute (40 U.S.C. chapter 31, subchapter IV);

(ii) Other than individuals employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in 29 CFR part 541;

(iii) Regardless of the contractual relationship alleged to exist between the individual and the employer.

(2) Includes workers performing on, or in connection with, the contract whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(c).

(3) Also includes any person working on, or in connection with, the contract and individually registered in a bona fide apprenticeship or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship.

(b) Executive Order minimum wage rate. (1) The Contractor shall pay to workers, while performing in the United States, and performing on, or in connection with, this contract, a minimum hourly wage rate of \$10.10 per hour beginning January 1, 2015.

(2) The Contractor shall adjust the minimum wage paid, if necessary, beginning January 1, 2016, and annually thereafter, to meet the applicable annual E.O. minimum wage. The Administrator of the Department of Labor's Wage and Hour Division (the Administrator) will publish annual

determinations in the Federal Register no later than 90 days before the effective date of the new E.O. minimum wage rate. The Administrator will also publish the applicable E.O. minimum wage on [www.wdol.gov](http://www.wdol.gov) (or any successor Web site), and a general notice on all wage determinations issued under the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, that will provide information on the E.O. minimum wage and how to obtain annual updates. The applicable published E.O. minimum wage is incorporated by reference into this contract.

(3)(i) The Contractor may request a price adjustment only after the effective date of the new annual E.O. minimum wage determination. Prices will be adjusted only for increased labor costs (including subcontractor labor costs) as a result of an increase in the annual E.O. minimum wage, and for associated labor costs (including those for subcontractors). Associated labor costs shall include increases or decreases that result from changes in social security and unemployment taxes and workers' compensation insurance, but will not otherwise include any amount for general and administrative costs, overhead, or profit.

(ii) Subcontractors may be entitled to adjustments due to the new minimum wage, pursuant to paragraph (b)(2). Contractors shall consider any subcontractor requests for such price adjustment.

(iii) The Contracting Officer will not adjust the contract price under this clause for any costs other than those identified in paragraph (b)(3)(i) of this clause, and will not provide duplicate price adjustments with any price adjustment under clauses implementing the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute.

(4) The Contractor warrants that the prices in this contract do not include allowance for any contingency to cover increased costs for which adjustment is provided under this clause.

(5) A pay period under this clause may not be longer than semi-monthly, but may be shorter to comply with any applicable law or other requirement under this contract establishing a shorter pay period. Workers shall be paid no later than one pay period following the end of the regular pay period in which such wages were earned or accrued.

(6) The Contractor shall pay, unconditionally to each worker, all wages due free and clear without subsequent rebate or kickback. The Contractor may make deductions that reduce a worker's wages below the E.O. minimum wage rate only if done in accordance with 29 CFR 10.23, Deductions.

(7) The Contractor shall not discharge any part of its minimum wage obligation under this clause by furnishing fringe benefits or, with respect to workers whose wages are governed by the Service Contract Labor Standards statute, the cash equivalent thereof.

(8) Nothing in this clause shall excuse the Contractor from compliance with any applicable Federal or State prevailing wage law or any applicable law or municipal ordinance establishing a minimum wage higher than the E.O. minimum wage. However, wage increases under such other laws or municipal ordinances are not subject to price adjustment under this subpart.

(9) The Contractor shall pay the E.O. minimum wage rate whenever it is higher than any applicable collective bargaining agreement(s) wage rate.

(10) The Contractor shall follow the policies and procedures in 29 CFR 10.24(b) and 10.28 for treatment of workers engaged in an occupation in which they customarily and regularly receive more than \$30 a month in tips.

(c)(1) This clause applies to workers as defined in paragraph (a). As provided in that definition--

(i) Workers are covered regardless of the contractual relationship alleged to exist between the contractor or subcontractor and the worker;

(ii) Workers with disabilities whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(c) are covered; and

(iii) Workers who are registered in a bona fide apprenticeship program or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship, are covered.

(2) This clause does not apply to--

(i) Fair Labor Standards Act (FLSA)-covered individuals performing in connection with contracts covered by the E.O., i.e. those individuals who perform duties necessary to the performance of the contract, but who are not directly engaged in performing the specific work called for by the contract, and who spend less than 20 percent of their hours worked in a particular workweek performing in connection with such contracts;

(ii) Individuals exempted from the minimum wage requirements of the FLSA under 29 U.S.C. 213(a) and 214(a) and (b), unless otherwise covered by the Service Contract Labor Standards statute, or the Wage Rate Requirements (Construction) statute. These individuals include but are not limited to--

(A) Learners, apprentices, or messengers whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(a).

(B) Students whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(b).

(C) Those employed in a bona fide executive, administrative, or professional capacity (29 U.S.C. 213(a)(1) and 29 CFR part 541).

(d) Notice. The Contractor shall notify all workers performing work on, or in connection with, this contract of the applicable E.O. minimum wage rate under this clause. With respect to workers covered by the Service Contract Labor Standards statute or the Wage Rate

Requirements (Construction) statute, the Contractor may meet this requirement by posting, in a prominent and accessible place at the worksite, the applicable wage determination under those statutes. With respect to workers whose wages are governed by the FLSA, the Contractor shall post notice, utilizing the poster provided by the Administrator, which can be obtained at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts), in a prominent and accessible place at the worksite. Contractors that customarily post notices to workers electronically may post the notice electronically provided the electronic posting is displayed prominently on any Web site that is maintained by the contractor, whether external or internal, and customarily used for notices to workers about terms and conditions of employment.

(e) Payroll Records. (1) The Contractor shall make and maintain records, for three years after completion of the work, containing the following information for each worker:

- (i) Name, address, and social security number;
- (ii) The worker's occupation(s) or classification(s);
- (iii) The rate or rates of wages paid;
- (iv) The number of daily and weekly hours worked by each worker;
- (v) Any deductions made; and
- (vi) Total wages paid.

(2) The Contractor shall make records pursuant to paragraph (e)(1) of this clause available for inspection and transcription by authorized representatives of the Administrator. The Contractor shall also make such records available upon request of the Contracting Officer.

(3) The Contractor shall make a copy of the contract available, as applicable, for inspection or transcription by authorized representatives of the Administrator.

(4) Failure to comply with this paragraph (e) shall be a violation of 29 CFR 10.26 and this contract. Upon direction of the Administrator or upon the Contracting Officer's own action, payment shall be withheld until such time as the noncompliance is corrected.

(5) Nothing in this clause limits or otherwise modifies the Contractor's payroll and recordkeeping obligations, if any, under the Service Contract Labor Standards statute, the Wage Rate Requirements (Construction) statute, the Fair Labor Standards Act, or any other applicable law.

(f) Access. The Contractor shall permit authorized representatives of the Administrator to conduct investigations, including interviewing workers at the worksite during normal working hours.

(g) Withholding. The Contracting Officer, upon his or her own action or upon written request of the Administrator, will withhold funds or cause funds to be withheld, from the Contractor under

this or any other Federal contract with the same Contractor, sufficient to pay workers the full amount of wages required by this clause.

(h) Disputes. Department of Labor has set forth in 29 CFR 10.51, Disputes concerning contractor compliance, the procedures for resolving disputes concerning a contractor's compliance with Department of Labor regulations at 29 CFR part 10. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. These disputes include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the Department of Labor, or the workers or their representatives.

(i) Antiretaliation. The Contractor shall not discharge or in any other manner discriminate against any worker because such worker has filed any complaint or instituted or caused to be instituted any proceeding under or related to compliance with the E.O. or this clause, or has testified or is about to testify in any such proceeding.

(j) Subcontractor compliance. The Contractor is responsible for subcontractor compliance with the requirements of this clause and may be held liable for unpaid wages due subcontractor workers.

(k) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (k) in all subcontracts, regardless of dollar value, that are subject to the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, and are to be performed in whole or in part in the United States.

(End of clause)

#### 52.222-62 PAID SICK LEAVE UNDER EXECUTIVE ORDER 13706 (JAN 2017)

(a) Definitions. As used in this clause (in accordance with 29 CFR 13.2)--

Child, domestic partner, and domestic violence have the meaning given in 29 CFR 13.2.

Employee--(1)(i) Means any person engaged in performing work on or in connection with a contract covered by Executive Order (E.O.) 13706; and

(A) Whose wages under such contract are governed by the Service Contract Labor Standards statute (41 U.S.C. chapter 67), the Wage Rate Requirements (Construction) statute (40 U.S.C. chapter 31, subchapter IV), or the Fair Labor Standards Act (29 U.S.C. chapter 8);

(B) Including employees who qualify for an exemption from the Fair Labor Standards Act's minimum wage and overtime provisions;

(C) Regardless of the contractual relationship alleged to exist between the individual and the employer; and

(ii) Includes any person performing work on or in connection with the contract and individually registered in a bona fide apprenticeship or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship.

(2)(i) An employee performs "on" a contract if the employee directly performs the specific services called for by the contract; and

(ii) An employee performs "in connection with" a contract if the employee's work activities are necessary to the performance of a contract but are not the specific services called for by the contract.

Individual related by blood or affinity whose close association with the employee is the equivalent of a family relationship has the meaning given in 29 CFR 13.2.

Multiemployer plan means a plan to which more than one employer is required to contribute and which is maintained pursuant to one or more collective bargaining agreements between one or more employee organizations and more than one employer.

Paid sick leave means compensated absence from employment that is required by E.O. 13706 and 29 CFR part 13.

Parent, sexual assault, spouse, and stalking have the meaning given in 29 CFR 13.2.

United States means the 50 States and the District of Columbia.

(b) Executive Order 13706. (1) This contract is subject to E.O. 13706 and the regulations issued by the Secretary of Labor in 29 CFR part 13 pursuant to the E.O.

(2) If this contract is not performed wholly within the United States, this clause only applies with respect to that part of the contract that is performed within the United States.

(c) Paid sick leave. The Contractor shall--

(1) Permit each employee engaged in performing work on or in connection with this contract to earn not less than 1 hour of paid sick leave for every 30 hours worked;

(2) Allow accrual and use of paid sick leave as required by E.O. 13706 and 29 CFR part 13;

(3) Comply with the accrual, use, and other requirements set forth in 29 CFR 13.5 and 13.6, which are incorporated by reference in this contract;

(4) Provide paid sick leave to all employees when due free and clear and without subsequent deduction (except as otherwise provided by 29 CFR 13.24), rebate, or kickback on any account;



- (5) Provide pay and benefits for paid sick leave used no later than one pay period following the end of the regular pay period in which the paid sick leave was taken; and
- (6) Be responsible for the compliance by any subcontractor with the requirements of E.O. 13706, 29 CFR part 13, and this clause.
- (d) Contractors may fulfill their obligations under E.O. 13706 and 29 CFR part 13 jointly with other contractors through a multiemployer plan, or may fulfill their obligations through an individual fund, plan, or program (see 29 CFR 13.8).
- (e) Withholding. The Contracting Officer will, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this or any other Federal contract with the same Contractor, so much of the accrued payments or advances as may be considered necessary to pay employees the full amount owed to compensate for any violation of the requirements of E.O. 13706, 29 CFR part 13, or this clause, including--
- (1) Any pay and/or benefits denied or lost by reason of the violation;
  - (2) Other actual monetary losses sustained as a direct result of the violation; and
  - (3) Liquidated damages.
- (f) Payment suspension/contract termination/contractor debarment. (1) In the event of a failure to comply with E.O. 13706, 29 CFR part 13, or this clause, the contracting agency may, on its own action or after authorization or by direction of the Department of Labor and written notification to the Contractor take action to cause suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
- (2) Any failure to comply with the requirements of this clause may be grounds for termination for default or cause.
  - (3) A breach of the contract clause may be grounds for debarment as a contractor and subcontractor as provided in 29 CFR 13.52.
- (g) The paid sick leave required by E.O. 13706, 29 CFR part 13, and this clause is in addition to the Contractor's obligations under the Service Contract Labor Standards statute and Wage Rate Requirements (Construction) statute, and the Contractor may not receive credit toward its prevailing wage or fringe benefit obligations under those Acts for any paid sick leave provided in satisfaction of the requirements of E.O. 13706 and 29 CFR part 13.
- (h) Nothing in E.O. 13706 or 29 CFR part 13 shall excuse noncompliance with or supersede any applicable Federal or State law, any applicable law or municipal ordinance, or a collective bargaining agreement requiring greater paid sick leave or leave rights than those established under E.O. 13706 and 29 CFR part 13.

(i) Recordkeeping. (1) The Contractor shall make and maintain, for no less than three (3) years from the completion of the work on the contract, records containing the following information for each employee, which the Contractor shall make available upon request for inspection, copying, and transcription by authorized representatives of the Administrator of the Wage and Hour Division of the Department of Labor:

(i) Name, address, and social security number of each employee.

(ii) The employee's occupation(s) or classification(s).

(iii) The rate or rates of wages paid (including all pay and benefits provided).

(iv) The number of daily and weekly hours worked.

(v) Any deductions made.

(vi) The total wages paid (including all pay and benefits provided) each pay period.

(vii) A copy of notifications to employees of the amount of paid sick leave the employee has accrued, as required under 29 CFR 13.5(a)(2).

(viii) A copy of employees' requests to use paid sick leave, if in writing, or, if not in writing, any other records reflecting such employee requests.

(ix) Dates and amounts of paid sick leave taken by employees (unless the Contractor's paid time off policy satisfies the requirements of E.O. 13706 and 29 CFR part 13 as described in 29 CFR 13.5(f)(5), leave shall be designated in records as paid sick leave pursuant to E.O. 13706).

(x) A copy of any written responses to employees' requests to use paid sick leave, including explanations for any denials of such requests, as required under 29 CFR 13.5(d)(3).

(xi) Any records reflecting the certification and documentation the Contractor may require an employee to provide under 29 CFR 13.5(e), including copies of any certification or documentation provided by an employee.

(xii) Any other records showing any tracking of or calculations related to an employee's accrual or use of paid sick leave.

(xiii) The relevant contract.

(xiv) The regular pay and benefits provided to an employee for each use of paid sick leave.

(xv) Any financial payment made for unused paid sick leave upon a separation from employment intended, pursuant to 29 CFR 13.5(b)(5), to relieve the Contractor from the obligation to reinstate such paid sick leave as otherwise required by 29 CFR 13.5(b)(4).

(2)(i) If the Contractor wishes to distinguish between an employee's covered and noncovered work, the Contractor shall keep records or other proof reflecting such distinctions. Only if the Contractor adequately segregates the employee's time will time spent on noncovered work be excluded from hours worked counted toward the accrual of paid sick leave. Similarly, only if the Contractor adequately segregates the employee's time may the Contractor properly refuse an employee's request to use paid sick leave on the ground that the employee was scheduled to perform noncovered work during the time he or she asked to use paid sick leave.

(ii) If the Contractor estimates covered hours worked by an employee who performs work in connection with contracts covered by the E.O. pursuant to 29 CFR 13.5(a)(1)(i) or (iii), the Contractor shall keep records or other proof of the verifiable information on which such estimates are reasonably based. Only if the Contractor relies on an estimate that is reasonable and based on verifiable information will an employee's time spent in connection with noncovered work be excluded from hours worked counted toward the accrual of paid sick leave. If the Contractor estimates the amount of time an employee spends performing in connection with contracts covered by the E.O., the Contractor shall permit the employee to use his or her paid sick leave during any work time for the Contractor.

(3) In the event the Contractor is not obligated by the Service Contract Labor Standards statute, the Wage Rate Requirements (Construction) statute, or the Fair Labor Standards Act to keep records of an employee's hours worked, such as because the employee is exempt from the Fair Labor Standards Act's minimum wage and overtime requirements, and the Contractor chooses to use the assumption permitted by 29 CFR 13.5(a)(1)(iii), the Contractor is excused from the requirement in paragraph (i)(1)(iv) of this clause and 29 CFR 13.25(a)(4) to keep records of the employee's number of daily and weekly hours worked.

(4)(i) Records relating to medical histories or domestic violence, sexual assault, or stalking, created for purposes of E.O. 13706, whether of an employee or an employee's child, parent, spouse, domestic partner, or other individual related by blood or affinity whose close association with the employee is the equivalent of a family relationship, shall be maintained as confidential records in separate files/records from the usual personnel files.

(ii) If the confidentiality requirements of the Genetic Information Nondiscrimination Act of 2008 (GINA), section 503 of the Rehabilitation Act of 1973, and/or the Americans with Disabilities Act (ADA) apply to records or documents created to comply with the recordkeeping requirements in this contract clause, the records and documents shall also be maintained in compliance with the confidentiality requirements of the GINA, section 503 of the Rehabilitation Act of 1973, and/or ADA as described in 29 CFR 1635.9, 41 CFR 60-741.23(d), and 29 CFR 1630.14(c)(1), respectively.

(iii) The Contractor shall not disclose any documentation used to verify the need to use 3 or more consecutive days of paid sick leave for the purposes listed in 29 CFR 13.5(c)(1)(iv) (as described in 29 CFR 13.5(e)(1)(ii)) and shall maintain confidentiality about any domestic abuse, sexual assault, or stalking, unless the employee consents or when disclosure is required by law.

(5) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(6) Nothing in this contract clause limits or otherwise modifies the Contractor's recordkeeping obligations, if any, under the Service Contract Labor Standards statute, the Wage Rate Requirements (Construction) statute, the Fair Labor Standards Act, the Family and Medical Leave Act, E.O. 13658, their respective implementing regulations, or any other applicable law.

(j) Interference/discrimination.

(1) The Contractor shall not in any manner interfere with an employee's accrual or use of paid sick leave as required by E.O. 13706 or 29 CFR part 13. Interference includes, but is not limited to--

(i) Miscalculating the amount of paid sick leave an employee has accrued;

(ii) Denying or unreasonably delaying a response to a proper request to use paid sick leave;

(iii) Discouraging an employee from using paid sick leave;

(iv) Reducing an employee's accrued paid sick leave by more than the amount of such leave used;

(v) Transferring an employee to work on contracts not covered by the E.O. to prevent the accrual or use of paid sick leave;

(vi) Disclosing confidential information contained in certification or other documentation provided to verify the need to use paid sick leave; or

(vii) Making the use of paid sick leave contingent on the employee's finding a replacement worker or the fulfillment of the Contractor's operational needs.

(2) The Contractor shall not discharge or in any other manner discriminate against any employee for--

(i) Using, or attempting to use, paid sick leave as provided for under E.O. 13706 and 29 CFR part 13;

(ii) Filing any complaint, initiating any proceeding, or otherwise asserting any right or claim under E.O. 13706 and 29 CFR part 13;

(iii) Cooperating in any investigation or testifying in any proceeding under E.O. 13706 and 29 CFR part 13; or

(iv) Informing any other person about his or her rights under E.O. 13706 and 29 CFR part 13.

(k) Notice. The Contractor shall notify all employees performing work on or in connection with a contract covered by the E.O. of the paid sick leave requirements of E.O. 13706, 29 CFR part 13, and this clause by posting a notice provided by the Department of Labor in a prominent and accessible place at the worksite so it may be readily seen by employees. Contractors that customarily post notices to employees electronically may post the notice electronically, provided such electronic posting is displayed prominently on any Web site that is maintained by the Contractor, whether external or internal, and customarily used for notices to employees about terms and conditions of employment.

(l) Disputes concerning labor standards. Disputes related to the application of E.O. 13706 to this contract shall not be subject to the general disputes clause of the contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR part 13. Disputes within the meaning of this contract clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the Department of Labor, or the employees or their representatives.

(m) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (m), in all subcontracts, regardless of dollar value, that are subject to the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, and are to be performed in whole or in part in the United States.

(End of clause)

#### 52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

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

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in

contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or

rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

#### 52.223-17 AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS (AUG 2018)

(a) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

(1) Competitively within a timeframe providing for compliance with the contract performance schedule;

(2) Meeting contract performance requirements; or

(3) At a reasonable price.

(b) Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>. The list of EPA-designated items is available at <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

(End of clause)

#### 52.223-18 ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING (JUN 2020)

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

Driving—

(1) Means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise.

(2) Does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.

Text messaging means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include glancing at or listening to a navigational device that is secured in a commercially designed holder affixed to the vehicle, provided that the destination and route are programmed into the device either before driving or while stopped in a location off the roadway where it is safe and legal to park.

(b) This clause implements Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving, dated October 1, 2009.

(c) The Contractor is encouraged to--

(1) Adopt and enforce policies that ban text messaging while driving--

(i) Company-owned or -rented vehicles or Government-owned vehicles; or

(ii) Privately-owned vehicles when on official Government business or when performing any work for or on behalf of the Government.

(2) Conduct initiatives in a manner commensurate with the size of the business, such as--

(i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

(ii) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts that exceed the micro-purchase threshold, as defined in Federal Acquisition Regulation 2.101 on the date of subcontract award.

(End of clause)

52.225-11 BUY AMERICAN ACT --CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (OCT 2016) ALTERNATE I (MAY 2014)

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



Australian, Chilean, or Moroccan construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of Australia, Chile, or Morocco; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Australia, Chile, or Morocco into a new and different construction material distinct from the materials from which it was transformed.

Bahrainian, Mexican, or Omani construction material means a construction material that—

- (1) Is wholly the growth, product, or manufacture of Bahrain, Mexico; or Oman
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Bahrain, Mexico, or Oman into a new and different construction material distinct from the materials from which it was transformed.

Caribbean Basin country construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or
  - (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different construction material distinct from the materials from which it was transformed.
- 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 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.

Designated country means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement (WTO GPA) country (Armenia, Aruba, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, Ukraine, or United Kingdom);

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Korea (Republic of), Mexico, Morocco, Nicaragua, Oman, Panama, Peru, or Singapore);

(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, British Virgin Islands, Curacao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sint Eustatius, Sint Maarten, or Trinidad and Tobago).

Domestic construction material means--

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

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

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

Least developed country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a least developed country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

“Free Trade Agreement country construction material” means a construction material that—

- (1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a new and different construction material distinct from the materials from which it was transformed.

“Least developed country construction material” means a construction material that—

- (1) Is wholly the growth, product, or manufacture of a least developed country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

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

WTO GPA country construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

(b) Construction materials.

(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)). In addition, the Contracting Officer has determined that the WTO GPA and all the Free Trade Agreements except the Bahrain FTA, NAFTA, and the Oman FTA apply to the this acquisition. Therefore, the Buy American statute restrictions are waived for designated country construction materials other than Bahrainian, Mexican, or Omani construction materials.

(2) The Contractor shall use only domestic or designated country construction material other than Bahrainian, Mexican, or Omani construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: none.

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) 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 restrictions of the Buy American statute 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 statute 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 statute. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) 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)(4)(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...	.....	.....	.....

\1\ 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)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUN 2008)

(a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Contractor shall not acquire, for use in the performance of this contract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.

(b) Except as authorized by OFAC, most transactions involving Cuba, Iran, and Sudan are prohibited, as are most imports from Burma or North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at TerList1.html. More information

about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR chapter V and/or on OFAC's Web site at <http://www.treas.gov/offices/enforcement/ofac/>.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

#### 52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES (JUN 2000)

(a) Definitions. As used in this clause:

“Indian” means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C.1452(c) and any “Native” as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

“Indian organization” means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

“Indian-owned economic enterprise” means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.

“Indian tribe” means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452(c).

“Interested party” means a prime contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contractor shall use its best efforts to give Indian organizations and Indian-owned economic enterprises (25 U.S.C. 1544) the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with efficient performance of its contract.

(1) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless an interested party challenges its status or the Contracting Officer has independent reason to question that status. In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the:

U.S. Department of the Interior  
Bureau of Indian Affairs (BIA)

Attn: Chief, Division of Contracting and Grants Administration  
1849 C Street, NW, MS-2626-MIB  
Washington, DC 20240-4000

The BIA will determine the eligibility and notify the Contracting Officer. No incentive payment will be made within 50 working days of subcontract award or while a challenge is pending. If a subcontractor is determined to be an ineligible participant, no incentive payment will be made under the Indian Incentive Program.

(2) The Contractor may request an adjustment under the Indian Incentive Program to the following:

- (i) The estimated cost of a cost-type contract.
- (ii) The target cost of a cost-plus-incentive-fee prime contract.
- (iii) The target cost and ceiling price of a fixed-price incentive prime contract.
- (iv) The price of a firm-fixed-price prime contract.

(3) The amount of the adjustment to the prime contract is 5 percent of the estimated cost, target cost, or firm-fixed-price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(4) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(c) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor. The Contracting Officer will seek funding in accordance with agency procedures.

(End of Clause)

#### 52.227-1 AUTHORIZATION AND CONSENT (JUN 2020)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent--

(1) Embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract; or

(2) Used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a United States patent shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the

Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor shall include the substance of this clause, including this paragraph (b), in all subcontracts that are expected to exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation (FAR) 2.101 on the date of subcontract award. However, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award, does not affect this authorization and consent.

(End of clause)

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (JUN 2020)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in the Contractor's possession pertaining to such claim or suit. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor shall include the substance of this clause, including this paragraph (c), in all subcontracts that are expected to exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation (FAR) 2.101 on the date of subcontract award.

(End of Clause)

52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the



opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

(End of clause)

#### 52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997)

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as the laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)

#### 52.228-11 PLEDGES OF ASSETS (AUG 2018)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form); and/or

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) A mortgagee title insurance policy, in an insurance amount equal to the amount of the lien, or other evidence of title that is consistent with the requirements of Section 2 of the United States Department of Justice Title Standards at

<https://www.justice.gov/enrd/page/file/922431/download>. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

#### 52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS. (MAY 2014)

In accordance with section 806(a)(3) of Pub. L. 102-190, as amended by sections 2091 and 8105 of Pub. L. 103-355 (10 U.S.C. 2302 note), upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to 40 U.S.C. chapter 31, subchapter III, Bonds, the Contractor shall promptly provide a copy of such payment bond to the requester.

(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. \_\_\_\_ \_ (for reference only)

TO: [ \_\_\_\_ U.S. Government agency]

[ \_\_\_\_ U.S. Government agency's address]

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)

## 52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (JUN 2020)

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

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is valued at or below the threshold specified in Federal Acquisition Regulation 28.102-1(a) on the date of award of this contract, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of the Treasury, Financial Management Service, Surety Bond Branch, 3700 East West Highway, Room 6F01, Hyattsville, MD 20782. Or via the internet at <http://www.fms.treas.gov/c570/>.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 3133(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

### 52.229-3 FEDERAL, STATE, AND LOCAL TAXES (FEB 2013)

(a) As used in this clause—

“After-imposed Federal tax” means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

“After-relieved Federal tax” means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

“All applicable Federal, State, and local taxes and duties” means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

“Contract date” means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

“Local taxes” includes taxes imposed by a possession or territory of the United States, Puerto Rico, or the Northern Mariana Islands, if the contract is performed wholly or partly in any of those areas.

(b)(1) The contract price includes all applicable Federal, State, and local taxes and duties, except as provided in subparagraph (b)(2)(i) of this clause.

(2) Taxes imposed under 26 U.S.C. 5000C may not be—

(i) Included in the contract price; nor

(ii) Reimbursed.



- (c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.
- (d) The contract price shall be decreased by the amount of any after-relieved Federal tax.
- (e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.
- (f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds \$250.
- (g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.
- (h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

#### 52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 2014)

- (a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.
- (b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.
  - (1) The Contractor's request for progress payments shall include the following substantiation:
    - (i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.
    - (ii) A listing of the amount included for work performed by each subcontractor under the contract.
    - (iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

\_\_\_\_\_

(Name)

\_\_\_\_\_

(Title)

\_\_\_\_\_

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance

by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 6305).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR 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.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

#### 52.232-16 PROGRESS PAYMENTS (JUN 2020)

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 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 the 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) above, 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 liquidation's 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) below).

(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) above, and that rate is less than the progress payment rate stated in subparagraph (a)(1) above.

(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 subparagraph (ii) above; 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 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 the clause for any subcontractor that is a large business concern, or that 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 Part 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 30th 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 a 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)

#### 52.232-17 INTEREST (MAY 2014)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Certified Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in 41 U.S.C. 7109, which is applicable to the period in which the amount becomes due, as provided in paragraph (e) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid.

- (b) The Government may issue a demand for payment to the Contractor upon finding a debt is due under the contract.
- (c) Final Decisions. The Contracting Officer will issue a final decision as required by 33.211 if--
- (1) The Contracting Officer and the Contractor are unable to reach agreement on the existence or amount of a debt in a timely manner;
  - (2) The Contractor fails to liquidate a debt previously demanded by the Contracting Officer within the timeline specified in the demand for payment unless the amounts were not repaid because the Contractor has requested an installment payment agreement; or
  - (3) The Contractor requests a deferment of collection on a debt previously demanded by the Contracting Officer (see 32.607-2).
- (d) If a demand for payment was previously issued for the debt, the demand for payment included in the final decision shall identify the same due date as the original demand for payment.
- (e) Amounts shall be due at the earliest of the following dates:
- (1) The date fixed under this contract.
  - (2) The date of the first written demand for payment, including any demand for payment resulting from a default termination.
- (f) The interest charge shall be computed for the actual number of calendar days involved beginning on the due date and ending on--
- (1) The date on which the designated office receives payment from the Contractor;
  - (2) The date of issuance of a Government check to the Contractor from which an amount otherwise payable has been withheld as a credit against the contract debt; or
  - (3) The date on which an amount withheld and applied to the contract debt would otherwise have become payable to the Contractor.
- (g) The interest charge made under this clause may be reduced under the procedures prescribed in 32.608-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

#### 52.232-23 ASSIGNMENT OF CLAIMS (MAY 2014)

- (a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 6305 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to

become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

#### 52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (JAN 2017)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--System for Award Management, or 52.232-34, Payment by Electronic Funds Transfer--Other Than System for Award Management), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or

services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval.

Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--



(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under 41 U.S.C. 7109 in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the

subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest

payments under 41 U.S.C. 7109 in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports—

(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a “second-tier subcontractor”) a written notice in accordance with 40 U.S.C. 3133, asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of 41 U.S.C. 7109 in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall--

(1) Remit the overpayment amount to the payment office cited in the contract along with a description of the overpayment including the--

(i) Circumstances of the overpayment (e.g., duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);

(ii) Affected contract number and delivery order number if applicable;

(iii) Affected line item or subline item, if applicable; and

(iv) Contractor point of contact.

(2) Provide a copy of the remittance and supporting documentation to the Contracting Officer.

(End of clause)

#### 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—SYSTEM FOR AWARD MANAGEMENT (OCT 2018)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term “EFT” refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the System for Award Management (SAM). In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to SAM.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in SAM is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into SAM; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(f) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register separately in SAM and shall be paid by EFT in accordance with the terms of this clause. Notwithstanding any other requirement of this contract, payment to an ultimate recipient other than the Contractor, or a financial institution properly recognized under an assignment of claims pursuant to subpart 32.8, is not permitted. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(i) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does

not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in SAM.

(End of Clause)

#### 52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUN 2013)

(a) Except as stated in paragraph (b) of this clause, when any supply or service acquired under this contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring the Government to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:

(1) Any such clause is unenforceable against the Government.

(2) Neither the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (e.g., "click-wrap" or "browse-wrap" agreements), execution does not bind the Government or any Government authorized end user to such clause.

(3) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.

(b) Paragraph (a) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures.

(End of clause)

#### 52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (DEC 2013)

(a) Upon receipt of accelerated payments from the Government, the Contractor shall make accelerated payments to its small business subcontractors under this contract, to the maximum extent practicable and prior to when such payment is otherwise required under the applicable contract or subcontract, after receipt of a proper invoice and all other required documentation from the small business subcontractor.

(b) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

(c) Include the substance of this clause, including this paragraph (c), in all subcontracts with small business concerns, including subcontracts with small business concerns for the acquisition of commercial items.

(End of clause)

52.233-1 DISPUTES. (MAY 2014) -- ALTERNATE I (DEC 1991)

(a) This contract is subject to 41 U.S.C. chapter 71, Contract Disputes.

(b) Except as provided in 41 U.S.C. chapter 71, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under 41 U.S.C. chapter 71 until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under 41 U.S.C. chapter 71. The submission may be converted to a claim under 41 U.S.C. chapter 71, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2) (i) Contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim exceeding \$100,000.

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am authorized to certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in



writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in 41 U.S.C. chapter 71.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use ADR. If the Contractor refuses an offer for alternative disputes resolution, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request. When using arbitration conducted pursuant to 5 U.S.C. 575-580, or when using any other ADR technique that the agency elects to handle in accordance with the ADRA, any claim, regardless of amount, shall be accompanied by the certification described in subparagraph (d)(2)(iii) of this clause, and executed in accordance with subparagraph (d)(3) of this clause.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

(End of clause)

#### 52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

#### 52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)

United States law will apply to resolve any claim of breach of 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 **forty (40%)** percent 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)

#### 52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

#### 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

#### 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any

employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

#### 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

#### 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

#### 52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

#### 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation

that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

#### 52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

#### 52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting

Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

#### 52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

(End of clause)

#### 52.236-13 ACCIDENT PREVENTION (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

(1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;

(2) avoid interruptions of Government operations and delays in project completion dates; and

(3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(End of clause)

#### 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant,



and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

#### 52.236-16 QUANTITY SURVEYS (APR 1984)

(a) Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

(b) The Government shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

(c) Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer.

(End of clause)

#### 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as

considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(End of clause)

#### 52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

#### 52.242-5 PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (JAN 2017)

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

Reduced payment means a payment that is for less than the amount agreed upon in a subcontract in accordance with its terms and conditions, for supplies and services for which the Government has paid the prime contractor.

Untimely payment means a payment that is more than 90 days past due under the terms and conditions of a subcontract, for supplies and services for which the Government has paid the prime contractor.

(b) Notice. The Contractor shall notify the Contracting Officer, in writing, not later than 14 days after--

(1) A small business subcontractor was entitled to payment under the terms and conditions of the subcontract; and

(2) The Contractor--

(i) Made a reduced or untimely payment to the small business subcontractor; or

(ii) Failed to make a payment, which is now untimely.

(c) Content of notice. The Contractor shall include the reason(s) for making the reduced or untimely payment in any notice required under paragraph (b) of this clause.

(End of clause)

#### 52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method

authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

#### 52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

(c) A claim under this clause shall not be allowed—

(1) For any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and

(2) Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

#### 52.243-4 CHANGES (JUN 2007)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of the work;
- (3) In the Government-furnished property or services; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

- (1) the date, circumstances, and source of the order and
- (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

## 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (JUN 2020)

(a) Definitions. As used in this clause—

“Commercial item” and “commercially available off-the-shelf item” have the meanings contained in Federal Acquisition Regulation (FAR) 2.101.

“Subcontract” includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or non-developmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (Jun 2020) (41 U.S.C. 3509), if the subcontract exceeds the threshold specified in FAR 3.1004(a) on the date of subcontract award, and has a performance period of more than 120 days. 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.

(ii) [52.203-15](#), Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009 (Jun 2010) (Section 1553 of Pub. L. 111-5), if the subcontract is funded under the Recovery Act.

(iii) [52.203-19](#), Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017).

(iv) 52.204-21, Basic Safeguarding of Covered Contractor Information Systems (JUN 2016), other than subcontracts for commercially available off-the-shelf items, if flow down is required in accordance with paragraph (c) of FAR clause 52.204-21.

(v) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (JUL 2018) (Section 1634 of Pub. L. 115-91).

(vi) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2019) (Section 889(a)(1)(A) of Pub. L. 115-232)

(vii) 52.219-8, Utilization of Small Business Concerns (Oct 2018) (15 U.S.C. 637(d)(2) and (3)), if the subcontract offers further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds the applicable threshold specified in FAR 19.702(a) on the date of subcontract award, the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

- (viii) [52.222-21](#), Prohibition of Segregated Facilities (Apr 2015).
- (ix) [52.222-26](#), Equal Opportunity (Sept 2016) (E.O. 11246).
- (x) 52.222-35, Equal Opportunity for Veterans (Jun 2020) (38 U.S.C. 4212(a)).
- (xi) 52.222-36, Equal Opportunity for Workers with Disabilities (Jun 2020) (29 U.S.C. 793).
- (xii) 52.222-37, Employment Reports on Veterans (Jun 2020) (38 U.S.C. 4212).
- (xiii) [52.222-40](#), Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496), if flow down is required in accordance with paragraph (f) of FAR clause [52.222-40](#).
- (xiv)(A) 52.222-50, Combating Trafficking in Persons (JAN 2019) (22 U.S.C. chapter 78 and E.O. 13627).
- (B) Alternate I (Mar 2015) of [52.222-50](#) ([22 U.S.C. chapter 78](#) and E.O. 13627).
- (xv) [52.222-55](#), Minimum Wages under Executive Order 13658 (Dec 2015), if flowdown is required in accordance with paragraph (k) of FAR clause [52.222-55](#).
- (xvi) 52.222-62, Paid Sick Leave Under Executive Order 13706 (JAN 2017) (E.O. 13706), if flow down is required in accordance with paragraph (m) of FAR clause 52.222-62.
- (xvii)(A) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a) if flow down is required in accordance with 52.224-3(f).
- (B) Alternate I (JAN 2017) of 52.224-3, if flow down is required in accordance with 52.224-3(f) and the agency specifies that only its agency-provided training is acceptable).
- (xviii) [52.225-26](#), Contractors Performing Private Security Functions Outside the United States (Oct 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; [10 U.S.C. 2302 Note](#)).
- (xix) [52.232-40](#), Providing Accelerated Payments to Small Business Subcontractors (Dec 2013), if flow down is required in accordance with paragraph (c) of FAR clause [52.232-40](#).
- (xx) [52.247-64](#), Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) ([46 U.S.C. App. 1241](#) and [10 U.S.C. 2631](#)), if flow down is required in accordance with paragraph (d) of FAR clause [52.247-64](#)).
- (2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.
- (End of clause)

## 52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--  
(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly



furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

### 52.248-3 VALUE ENGINEERING--CONSTRUCTION (OCT 2015)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs(c) (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of \$70,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract . . . . . , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)  
(APR 2012) - ALTERNATE I (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 49.001 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective

date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

- (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- (h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value as determined by the Contracting Officer, for the loss of the Government property.
- (i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.
- (j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.
- (k) In arriving at the amount due the Contractor under this clause, there shall be deducted--
- (1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;
  - (2) Any claim which the Government has against the Contractor under this contract; and
  - (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.
- (l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.
- (m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.
- (2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of

termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

#### 52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if—

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include—

(i) Acts of God or of the public enemy,

(ii) Acts of the Government in either its sovereign or contractual capacity,

(iii) Acts of another Contractor in the performance of a contract with the Government,

(iv) Fires,

(v) Floods,

(vi) Epidemics,



(vii) Quarantine restrictions,

(viii) Strikes,

(ix) Freight embargoes,

(x) Unusually severe weather, or

(xi) Delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

(d) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

#### 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any FAR or DFARS clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

#### 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(i) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

#### 252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

#### 252.203-7000 REQUIREMENTS RELATING TO COMPENSATION OF FORMER DOD OFFICIALS (SEP 2011)

(a) Definition. Covered DoD official, as used in this clause, means an individual that--

(1) Leaves or left DoD service on or after January 28, 2008; and

(2)(i) Participated personally and substantially in an acquisition as defined in 41 U.S.C. 131 with a value in excess of \$10 million, and serves or served--

(A) In an Executive Schedule position under subchapter II of chapter 53 of Title 5, United States Code;

(B) In a position in the Senior Executive Service under subchapter VIII of chapter 53 of Title 5, United States Code; or

(C) In a general or flag officer position compensated at a rate of pay for grade O-7 or above under section 201 of Title 37, United States Code; or

(ii) Serves or served in DoD in one of the following positions: Program manager, deputy program manager, procuring contracting officer, administrative contracting officer, source selection authority, member of the source selection evaluation board, or chief of a financial or technical evaluation team for a contract in an amount in excess of \$10 million.

(b) The Contractor shall not knowingly provide compensation to a covered DoD official within 2 years after the official leaves DoD service, without first determining that the official has sought and received, or has not received after 30 days of seeking, a written opinion from the appropriate DoD ethics counselor regarding the applicability of post-employment restrictions to the activities that the official is expected to undertake on behalf of the Contractor.

(c) Failure by the Contractor to comply with paragraph (b) of this clause may subject the Contractor to rescission of this contract, suspension, or debarment in accordance with 41 U.S.C. 2105(c).

(End of clause)

#### 252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (DEC 2008)

(a) Definitions. As used in this clause—

(1) “Arising out of a contract with the DoD” means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) “Conviction of fraud or any other felony” means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of nolo contendere, for which sentence has been imposed.

(3) “Date of conviction” means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on this contract;

(2) On the board of directors of the Contractor;

(3) As a consultant, agent, or representative for the Contractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of the Contractor with regard to this contract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that the Contractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly--

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone 301-937-1542; [www.ojp.usdoj.gov/BJA/grant/DPFC.html](http://www.ojp.usdoj.gov/BJA/grant/DPFC.html).

(End of clause)

### 252.203-7002 REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (SEP 2013)

(a) The Contractor shall inform its employees in writing, in the predominant native language of the workforce, of contractor employee whistleblower rights and protections under 10 U.S.C. 2409, as described in subpart 203.9 of the Defense Federal Acquisition Regulation Supplement.

(b) The Contractor shall include the substance of this clause, including this paragraph (b), in all subcontracts.

(End of clause)

### 252.203-7003 AGENCY OFFICE OF THE INSPECTOR GENERAL (AUG 2019)

The agency office of the Inspector General referenced in paragraphs (c) and (d) of FAR clause 52.203-13, Contractor Code of Business Ethics and Conduct, is the DoD Office of Inspector General at the following address:

Department of Defense Office of Inspector General, Administrative Investigations, Contractor Disclosure Program, 4800 Mark Center Drive, Suite 14L25, Alexandria, VA 22350-1500.

Toll Free Telephone: 866-429-8011. Website: <https://www.dodig.mil/Programs/Contractor-Disclosure-Program/>.

(End of clause)

### 252.204-7000 DISCLOSURE OF INFORMATION (OCT 2016)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless--

(1) The Contracting Officer has given prior written approval;

(2) The information is otherwise in the public domain before the date of release; or

(3) The information results from or arises during the performance of a project that involves no covered defense information (as defined in the clause at DFARS 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting) and has been scoped and negotiated by the contracting activity with the contractor and research performer and determined in writing by the contracting officer to be fundamental research (which by definition cannot involve any covered defense information), in accordance with National Security Decision Directive 189, National Policy on the Transfer of Scientific, Technical and Engineering Information, in effect on the date of contract award and the Under Secretary of Defense (Acquisition, Technology, and

Logistics) memoranda on Fundamental Research, dated May 24, 2010, and on Contracted Fundamental Research, dated June 26, 2008 (available at DFARS PGI 204.4).

(b) Requests for approval under paragraph (a)(1) shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 10 business days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement, including this paragraph (c), in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

252.204-7006 BILLING INSTRUCTIONS (OCT 2005)

When submitting a request for payment, the Contractor shall—

(a) Identify the contract line item(s) on the payment request that reasonably reflect contract work performance; and

(b) Separately identify a payment amount for each contract line item included in the payment request.

(End of clause)

252.204-7012 SAFEGUARDING COVERED DEFENSE INFORMATION AND CYBER INCIDENT REPORTING (DEC 2019)

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

Adequate security means protective measures that are commensurate with the consequences and probability of loss, misuse, or unauthorized access to, or modification of information.

Compromise means disclosure of information to unauthorized persons, or a violation of the security policy of a system, in which unauthorized intentional or unintentional disclosure, modification, destruction, or loss of an object, or the copying of information to unauthorized media may have occurred.

Contractor attributional/proprietary information means information that identifies the contractor(s), whether directly or indirectly, by the grouping of information that can be traced back to the contractor(s) (e.g., program description, facility locations), personally identifiable information, as well as trade secrets, commercial or financial information, or other commercially sensitive information that is not customarily shared outside of the company.

Controlled technical information means technical information with military or space application that is subject to controls on the access, use, reproduction, modification, performance, display, release, disclosure, or dissemination. Controlled technical information would meet the criteria, if disseminated, for distribution statements B through F using the criteria set forth in DoD Instruction 5230.24, Distribution Statements on Technical Documents. The term does not include information that is lawfully publicly available without restrictions.

Covered contractor information system means an unclassified information system that is owned, or operated by or for, a contractor and that processes, stores, or transmits covered defense information.

Covered defense information means unclassified controlled technical information or other information, as described in the Controlled Unclassified Information (CUI) Registry at <http://www.archives.gov/cui/registry/category-list.html>, that requires safeguarding or dissemination controls pursuant to and consistent with law, regulations, and Governmentwide policies, and is--

- (1) Marked or otherwise identified in the contract, task order, or delivery order and provided to the contractor by or on behalf of DoD in support of the performance of the contract; or
- (2) Collected, developed, received, transmitted, used, or stored by or on behalf of the contractor in support of the performance of the contract.

Cyber incident means actions taken through the use of computer networks that result in a compromise or an actual or potentially adverse effect on an information system and/or the information residing therein.

Forensic analysis means the practice of gathering, retaining, and analyzing computer-related data for investigative purposes in a manner that maintains the integrity of the data.

Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.

Malicious software means computer software or firmware intended to perform an unauthorized process that will have adverse impact on the confidentiality, integrity, or availability of an

information system. This definition includes a virus, worm, Trojan horse, or other code-based entity that infects a host, as well as spyware and some forms of adware.

Media means physical devices or writing surfaces including, but is not limited to, magnetic tapes, optical disks, magnetic disks, large-scale integration memory chips, and printouts onto which covered defense information is recorded, stored, or printed within a covered contractor information system.

Operationally critical support means supplies or services designated by the Government as critical for airlift, sealift, intermodal transportation services, or logistical support that is essential to the mobilization, deployment, or sustainment of the Armed Forces in a contingency operation.

Rapidly report means within 72 hours of discovery of any cyber incident.

Technical information means technical data or computer software, as those terms are defined in the clause at DFARS 252.227-7013, Rights in Technical Data--Noncommercial Items, regardless of whether or not the clause is incorporated in this solicitation or contract. Examples of technical information include research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, technical orders, catalog-item identifications, data sets, studies and analyses and related information, and computer software executable code and source code.

(b) Adequate security. The Contractor shall provide adequate security on all covered contractor information systems. To provide adequate security, the Contractor shall implement, at a minimum, the following information security protections:

(1) For covered contractor information systems that are part of an information technology (IT) service or system operated on behalf of the Government, the following security requirements apply:

(i) Cloud computing services shall be subject to the security requirements specified in the clause 252.239-7010, Cloud Computing Services, of this contract.

(ii) Any other such IT service or system (i.e., other than cloud computing) shall be subject to the security requirements specified elsewhere in this contract.

(2) For covered contractor information systems that are not part of an IT service or system operated on behalf of the Government and therefore are not subject to the security requirement specified at paragraph (b)(1) of this clause, the following security requirements apply:

(i) Except as provided in paragraph (b)(2)(ii) of this clause, the covered contractor information system shall be subject to the security requirements in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (available via the internet at <http://dx.doi.org/10.6028/NIST.SP.800-171>) in effect at the time the solicitation is issued or as authorized by the Contracting Officer.



(ii)(A) The Contractor shall implement NIST SP 800-171, as soon as practical, but not later than December 31, 2017. For all contracts awarded prior to October 1, 2017, the Contractor shall notify the DoD Chief Information Officer (CIO), via email at [osd.dibcsia@mail.mil](mailto:osd.dibcsia@mail.mil), within 30 days of contract award, of any security requirements specified by NIST SP 800-171 not implemented at the time of contract award.

(B) The Contractor shall submit requests to vary from NIST SP 800-171 in writing to the Contracting Officer, for consideration by the DoD CIO. The Contractor need not implement any security requirement adjudicated by an authorized representative of the DoD CIO to be nonapplicable or to have an alternative, but equally effective, security measure that may be implemented in its place.

(C) If the DoD CIO has previously adjudicated the contractor's requests indicating that a requirement is not applicable or that an alternative security measure is equally effective, a copy of that approval shall be provided to the Contracting Officer when requesting its recognition under this contract.

(D) If the Contractor intends to use an external cloud service provider to store, process, or transmit any covered defense information in performance of this contract, the Contractor shall require and ensure that the cloud service provider meets security requirements equivalent to those established by the Government for the Federal Risk and Authorization Management Program (FedRAMP) Moderate baseline (<https://www.fedramp.gov/resources/documents/>) and that the cloud service provider complies with requirements in paragraphs (c) through (g) of this clause for cyber incident reporting, malicious software, media preservation and protection, access to additional information and equipment necessary for forensic analysis, and cyber incident damage assessment.

(3) Apply other information systems security measures when the Contractor reasonably determines that information systems security measures, in addition to those identified in paragraphs (b)(1) and (2) of this clause, may be required to provide adequate security in a dynamic environment or to accommodate special circumstances (e.g., medical devices) and any individual, isolated, or temporary deficiencies based on an assessed risk or vulnerability. These measures may be addressed in a system security plan.

(c) Cyber incident reporting requirement.

(1) When the Contractor discovers a cyber incident that affects a covered contractor information system or the covered defense information residing therein, or that affects the contractor's ability to perform the requirements of the contract that are designated as operationally critical support and identified in the contract, the Contractor shall--

(i) Conduct a review for evidence of compromise of covered defense information, including, but not limited to, identifying compromised computers, servers, specific data, and user accounts. This review shall also include analyzing covered contractor information system(s) that were part of the cyber incident, as well as other information systems on the Contractor's network(s), that may have been accessed as a result of the incident in order to identify compromised covered

defense information, or that affect the Contractor's ability to provide operationally critical support; and

(ii) Rapidly report cyber incidents to DoD at <https://dibnet.dod.mil>.

(2) Cyber incident report. The cyber incident report shall be treated as information created by or for DoD and shall include, at a minimum, the required elements at <https://dibnet.dod.mil>.

(3) Medium assurance certificate requirement. In order to report cyber incidents in accordance with this clause, the Contractor or subcontractor shall have or acquire a DoD-approved medium assurance certificate to report cyber incidents. For information on obtaining a DoD-approved medium assurance certificate, see <https://public.cyber.mil/eca/>.

(d) Malicious software. When the Contractor or subcontractors discover and isolate malicious software in connection with a reported cyber incident, submit the malicious software to DoD Cyber Crime Center (DC3) in accordance with instructions provided by DC3 or the Contracting Officer. Do not send the malicious software to the Contracting Officer.

(e) Media preservation and protection. When a Contractor discovers a cyber incident has occurred, the Contractor shall preserve and protect images of all known affected information systems identified in paragraph (c)(1)(i) of this clause and all relevant monitoring/packet capture data for at least 90 days from the submission of the cyber incident report to allow DoD to request the media or decline interest.

(f) Access to additional information or equipment necessary for forensic analysis. Upon request by DoD, the Contractor shall provide DoD with access to additional information or equipment that is necessary to conduct a forensic analysis.

(g) Cyber incident damage assessment activities. If DoD elects to conduct a damage assessment, the Contracting Officer will request that the Contractor provide all of the damage assessment information gathered in accordance with paragraph (e) of this clause.

(h) DoD safeguarding and use of contractor attributional/proprietary information. The Government shall protect against the unauthorized use or release of information obtained from the contractor (or derived from information obtained from the contractor) under this clause that includes contractor attributional/proprietary information, including such information submitted in accordance with paragraph (c). To the maximum extent practicable, the Contractor shall identify and mark attributional/proprietary information. In making an authorized release of such information, the Government will implement appropriate procedures to minimize the contractor attributional/proprietary information that is included in such authorized release, seeking to include only that information that is necessary for the authorized purpose(s) for which the information is being released.

(i) Use and release of contractor attributional/proprietary information not created by or for DoD. Information that is obtained from the contractor (or derived from information obtained from the

contractor) under this clause that is not created by or for DoD is authorized to be released outside of DoD--

- (1) To entities with missions that may be affected by such information;
- (2) To entities that may be called upon to assist in the diagnosis, detection, or mitigation of cyber incidents;
- (3) To Government entities that conduct counterintelligence or law enforcement investigations;
- (4) For national security purposes, including cyber situational awareness and defense purposes (including with Defense Industrial Base (DIB) participants in the program at 32 CFR part 236);  
or
- (5) To a support services contractor ("recipient") that is directly supporting Government activities under a contract that includes the clause at 252.204-7009, Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information.

(j) Use and release of contractor attributional/proprietary information created by or for DoD. Information that is obtained from the contractor (or derived from information obtained from the contractor) under this clause that is created by or for DoD (including the information submitted pursuant to paragraph (c) of this clause) is authorized to be used and released outside of DoD for purposes and activities authorized by paragraph (i) of this clause, and for any other lawful Government purpose or activity, subject to all applicable statutory, regulatory, and policy based restrictions on the Government's use and release of such information.

(k) The Contractor shall conduct activities under this clause in accordance with applicable laws and regulations on the interception, monitoring, access, use, and disclosure of electronic communications and data.

(l) Other safeguarding or reporting requirements. The safeguarding and cyber incident reporting required by this clause in no way abrogates the Contractor's responsibility for other safeguarding or cyber incident reporting pertaining to its unclassified information systems as required by other applicable clauses of this contract, or as a result of other applicable U.S. Government statutory or regulatory requirements.

(m) Subcontracts. The Contractor shall--

(1) Include this clause, including this paragraph (m), in subcontracts, or similar contractual instruments, for operationally critical support, or for which subcontract performance will involve covered defense information, including subcontracts for commercial items, without alteration, except to identify the parties. The Contractor shall determine if the information required for subcontractor performance retains its identity as covered defense information and will require protection under this clause, and, if necessary, consult with the Contracting Officer; and

(2) Require subcontractors to--

(i) Notify the prime Contractor (or next higher-tier subcontractor) when submitting a request to vary from a NIST SP 800-171 security requirement to the Contracting Officer, in accordance with paragraph (b)(2)(ii)(B) of this clause; and

(ii) Provide the incident report number, automatically assigned by DoD, to the prime Contractor (or next higher-tier subcontractor) as soon as practicable, when reporting a cyber incident to DoD as required in paragraph (c) of this clause.

(End of clause)

#### 252.204-7015 NOTICE OF AUTHORIZED DISCLOSURE OF INFORMATION FOR LITIGATION SUPPORT (MAY 2016)

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

Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

Litigation support means administrative, technical, or professional services provided in support of the Government during or in anticipation of litigation.

Litigation support contractor means a contractor (including its experts, technical consultants, subcontractors, and suppliers) providing litigation support under a contract that contains the clause at 252.204-7014, Limitations on the Use or Disclosure of Information by Litigation Support Contractors.

Sensitive information means controlled unclassified information of a commercial, financial, proprietary, or privileged nature. The term includes technical data and computer software, but does not include information that is lawfully, publicly available without restriction.

Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(b) Notice of authorized disclosures. Notwithstanding any other provision of this solicitation or contract, the Government may disclose to a litigation support contractor, for the sole purpose of litigation support activities, any information, including sensitive information, received—

(1) Within or in connection with a quotation or offer; or

(2) In the performance of or in connection with a contract.

(c) Flowdown. Include the substance of this clause, including this paragraph (c), in all subcontracts, including subcontracts for commercial items.

(End of clause)

#### 252.204-7018 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES (DEC 2019)

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

Covered defense telecommunications equipment or services means--

- (1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation, or any subsidiary or affiliate of such entities;
- (2) Telecommunications services provided by such entities or using such equipment; or
- (3) Telecommunications equipment or services produced or provided by an entity that the Secretary of Defense reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Covered foreign country means--

- (1) The People's Republic of China; or
- (2) The Russian Federation.

Covered missions means--

- (1) The nuclear deterrence mission of DoD, including with respect to nuclear command, control, and communications, integrated tactical warning and attack assessment, and continuity of Government; or
- (2) The homeland defense mission of DoD, including with respect to ballistic missile defense.

Critical technology means--

- (1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;
- (2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled--

- (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or
- (ii) For reasons relating to regional stability or surreptitious listening;
- (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);
- (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);
- (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or
- (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. In accordance with section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91), the contractor shall not provide to the Government any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless the covered defense telecommunication equipment or services are covered by a waiver described in Defense Federal Acquisition Regulation Supplement 204.2104.

(c) Procedures. The Contractor shall review the list of excluded parties in the System for Award Management (SAM) at <https://www.sam.gov> for entities that are excluded when providing any equipment, system, or service, to carry out covered missions, that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless a waiver is granted.

(d) Reporting.

(1) In the event the Contractor identifies covered defense telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, the Contractor shall report at <https://dibnet.dod.mil> the information in paragraph (d)(2) of this clause.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of a covered defense telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

#### 252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (DEC 1991)

(a) Definition.

"Cooperative agreement holder" means a State or local government; a private, nonprofit organization; a tribal organization (as defined in section 4(c) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93-268; 25 U.S.C. 450 (c))); or an economic enterprise (as defined in section 3(e) of the Indian Financing Act of 1974 (Pub. L. 93-362; 25 U.S.C. 1452(e))) whether such economic enterprise is organized for profit or nonprofit purposes; which has an agreement with the Defense Logistics Agency to furnish procurement technical assistance to business entities.

(b) The Contractor shall provide cooperative agreement holders, upon their request, with a list of those appropriate employees or offices responsible for entering into subcontracts under defense contracts. The list shall include the business address, telephone number, and area of responsibility of each employee or office.

(c) The Contractor need not provide the listing to a particular cooperative agreement holder more frequently than once a year.

(End of clause)

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A COUNTRY THAT IS A STATE SPONSOR OF TERRORISM (MAY 2019)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of the threshold specified in Federal Acquisition Regulation 9.405-2(b) on the date of subcontract award with a firm, or a subsidiary of a firm, that is identified in the Exclusions section of the System for Award Management System (SAM Exclusions) as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a country that is a state sponsor of terrorism.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, in SAM Exclusions, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a country that is a state sponsor of terrorism. The notice must include the name of the proposed subcontractor and the compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion in SAM Exclusions.

(End of clause)

252.219-7003 SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS) (DEC 2019)

This clause supplements the Federal Acquisition Regulation 52.219-9, Small Business Subcontracting Plan, clause of this contract.

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

Summary Subcontract Report (SSR) Coordinator means the individual who is registered in the Electronic Subcontracting Reporting System (eSRS) at the Department of Defense level and is responsible for acknowledging receipt or rejecting SSRs submitted under an individual subcontracting plan in eSRS for the Department of Defense.

(b) Subcontracts awarded to qualified nonprofit agencies designated by the Committee for Purchase From People Who Are Blind or Severely Disabled (41 U.S.C. 8502-8504), may be counted toward the Contractor's small business subcontracting goal (section 8025 of Pub. L. 108-87)

(c) A mentor firm, under the Pilot Mentor-Protege Program established under section 831 of Public Law 101-510, as amended, may count toward its small disadvantaged business goal, subcontracts awarded to--

(1) Protege firms which are qualified organizations employing the severely disabled; and

(2) Former protege firms that meet the criteria in section 831(g)(4) of Public Law 101-510.



(d) The master plan is approved by the cognizant contract administration activity for the Contractor.

(e) In those subcontracting plans which specifically identify small businesses, the Contractor shall notify the Administrative Contracting Officer of any substitutions of firms that are not small business firms, for the small business firms specifically identified in the subcontracting plan. Notifications shall be in writing and shall occur within a reasonable period of time after award of the subcontract. Contractor-specified formats shall be acceptable.

(f)(1) For DoD, the Contractor shall submit reports in eSRS as follows:

(i) The Individual Subcontract Report (ISR) shall be submitted to the contracting officer at the procuring contracting office, even when contract administration has been delegated to the Defense Contract Management Agency.

(ii) Submit the consolidated SSR for an individual subcontracting plan to the "Department of Defense."

(2) For DoD, the authority to acknowledge receipt or reject reports in eSRS is as follows:

(i) The authority to acknowledge receipt or reject the ISR resides with the contracting officer who receives it, as described in paragraph (f)(1)(i) of this clause.

(ii) The authority to acknowledge receipt of or reject SSRs submitted under an individual subcontracting plan resides with the SSR Coordinator.

(g) Include the clause at Defense Federal Acquisition Regulation Supplement (DFARS) 252.219-7004, Small Business Subcontracting Plan (Test Program), in subcontracts with subcontractors that participate in the Test Program described in DFARS 219.702-70, if the subcontract is expected to exceed the applicable threshold specified in Federal Acquisition Regulation 19.702(a), and to have further subcontracting opportunities.

(End of clause)

#### 252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which

is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2.1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

#### 252.223-7008 PROHIBITION OF HEXAVALENT CHROMIUM (JUN 2013)

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

Homogeneous material means a material that cannot be mechanically disjointed into different materials and is of uniform composition throughout.

(1) Examples of homogeneous materials include individual types of plastics, ceramics, glass, metals, alloys, paper, board, resins, and surface coatings.

(2) Homogeneous material does not include conversion coatings that chemically modify the substrate.

Mechanically disjointed means that the materials can, in principle, be separated by mechanical actions such as unscrewing, cutting, crushing, grinding, and abrasive processes.

(b) Prohibition.

(1) Unless otherwise specified by the Contracting Officer, the Contractor shall not provide any deliverable or construction material under this contract that--

(i) Contains hexavalent chromium in a concentration greater than 0.1 percent by weight in any homogenous material; or

(ii) Requires the removal or reapplication of hexavalent chromium materials during subsequent sustainment phases of the deliverable or construction material.

(2) This prohibition does not apply to hexavalent chromium produced as a by-product of manufacturing processes.

(c) If authorization for incorporation of hexavalent chromium in a deliverable or construction material is required, the Contractor shall submit a request to the Contracting Officer.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts, including subcontracts for commercial items, that are for supplies, maintenance and repair services, or construction materials.

(End of clause)

#### 252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (DEC 2017)

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

Component means any item supplied to the Government as part of an end product or of another component.

End product means supplies delivered under a line item of this contract.

Qualifying country means a country with a reciprocal defense procurement memorandum of understanding or international agreement with the United States in which both countries agree to remove barriers to purchases of supplies produced in the other country or services performed by sources of the other country, and the memorandum or agreement complies, where applicable, with the requirements of section 36 of the Arms Export Control Act (22 U.S.C. 2776) and with 10 U.S.C. 2457. Accordingly, the following are qualifying countries:

Australia  
Austria  
Belgium  
Canada  
Czech Republic  
Denmark  
Egypt  
Estonia  
Finland  
France  
Germany  
Greece  
Israel  
Italy  
Japan  
Latvia  
Luxembourg  
Netherlands  
Norway  
Poland

Portugal  
Slovenia  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom of Great Britain and Northern Ireland.

Structural component of a tent--

(i) Means a component that contributes to the form and stability of the tent (e.g., poles, frames, flooring, guy ropes, pegs);

(ii) Does not include equipment such as heating, cooling, or lighting.

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

U.S.-flag vessel means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States:

(1) Food.

(2) Clothing and the materials and components thereof, other than sensors, electronics, or other items added to, and not normally associated with, clothing and the materials and components thereof. Clothing includes items such as outerwear, headwear, underwear, nightwear, footwear, hosiery, handwear, belts, badges, and insignia.

(3) (i) Tents and structural components of tents;

(ii) Tarpaulins; or

(iii) Covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To incidental amounts of cotton, other natural fibers, or wool incorporated in an end product, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To waste and byproducts of cotton or wool fiber for use in the production of propellants and explosives;

(4) To foods, other than fish, shellfish, or seafood, that have been manufactured or processed in the United States, regardless of where the foods (and any component if applicable) were grown or produced. Fish, shellfish, or seafood manufactured or processed in the United States and fish, shellfish, or seafood contained in foods manufactured or processed in the United States shall be provided in accordance with paragraph (d) of this clause;

(5) To chemical warfare protective clothing produced in a qualifying country; or

(6) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and continuous filament para-aramid yarns manufactured in a qualifying country.

(d)(1) Fish, shellfish, and seafood delivered under this contract, or contained in foods delivered under this contract--

(i) Shall be taken from the sea by U.S.-flag vessels; or

(ii) If not taken from the sea, shall be obtained from fishing within the United States; and

(2) Any processing or manufacturing of the fish, shellfish, or seafood shall be performed on a U.S.-flag vessel or in the United States.

(End of clause)

#### 252.225-7048 EXPORT-CONTROLLED ITEMS (JUNE 2013)

(a) Definition. "Export-controlled items," as used in this clause, means items subject to the Export Administration Regulations (EAR) (15 CFR Parts 730-774) or the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). The term includes--

(1) "Defense items," defined in the Arms Export Control Act, 22 U.S.C. 2778(j)(4)(A), as defense articles, defense services, and related technical data, and further defined in the ITAR, 22 CFR Part 120; and

(2) "Items," defined in the EAR as "commodities", "software", and "technology," terms that are also defined in the EAR, 15 CFR 772.1.

(b) The Contractor shall comply with all applicable laws and regulations regarding export-controlled items, including, but not limited to, the requirement for contractors to register with the Department of State in accordance with the ITAR. The Contractor shall consult with the Department of State regarding any questions relating to compliance with the ITAR and shall consult with the Department of Commerce regarding any questions relating to compliance with the EAR.

(c) The Contractor's responsibility to comply with all applicable laws and regulations regarding export-controlled items exists independent of, and is not established or limited by, the information provided by this clause.

(d) Nothing in the terms of this contract adds, changes, supersedes, or waives any of the requirements of applicable Federal laws, Executive orders, and regulations, including but not limited to—

(1) The Export Administration Act of 1979, as amended (50 U.S.C. App. 2401, et seq.);

- (2) The Arms Export Control Act (22 U.S.C. 2751, et seq.);
- (3) The International Emergency Economic Powers Act (50 U.S.C. 1701, et seq.);
- (4) The Export Administration Regulations (15 CFR Parts 730-774);
- (5) The International Traffic in Arms Regulations (22 CFR Parts 120-130); and
- (6) Executive Order 13222, as extended.

(e) The Contractor shall include the substance of this clause, including this paragraph (e), in all subcontracts.

(End of clause)

252.225-7052 RESTRICTION ON THE ACQUISITION OF CERTAIN MAGNETS, TANTALUM, AND TUNGSTEN (DEVIATION 2020-O0006) (FEB 2020)

(a) Definitions. As used in this clause -

Assembly means an item forming a portion of a system or subsystem that -

- (1) Can be provisioned and replaced as an entity; and
- (2) Incorporates multiple, replaceable parts.

Commercially available off-the-shelf item -

- (1) Means any item of supply that is -
  - (i) A commercial item (as defined in paragraph (1) of the definition of "commercial item" in section 2.101 of the Federal Acquisition Regulation);
  - (ii) Sold in substantial quantities in the commercial marketplace; and
  - (iii) Offered to the Government, under this contract or a 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 any item supplied to the Government as part of an end item or of another component.

Covered country means -

- (1) The Democratic People's Republic of North Korea;
- (2) The People's Republic of China;
- (3) The Russian Federation; or
- (4) The Islamic Republic of Iran.

Covered material means -

- (1) Samarium-cobalt magnets;



- (2) Neodymium-iron-boron magnets;
- (3) Tantalum metal and alloy;
- (4) Tungsten metal powder; and
- (5) Tungsten heavy alloy or any finished or semi-finished component containing tungsten heavy alloy.

Electronic device means an item that operates by controlling the flow of electrons or other electrically charged particles in circuits, using interconnections such as resistors, inductors, capacitors, diodes, switches, transistors, or integrated circuits.

End item means the final production product when assembled or completed and ready for delivery under a line item of this contract.

Subsystem means a functional grouping of items that combine to perform a major function within an end item, such as electrical power, attitude control, and propulsion.

Tungsten heavy alloy means a tungsten base pseudo alloy that -

- (1) Meets the specifications of ASTM B777 or SAE-AMS-T-21014 for a particular class of tungsten heavy alloy; or
- (2) Contains at least 90 percent tungsten in a matrix of other metals (such as nickel-iron or nickel-copper) and has density of at least 16.5 g/cm<sup>3</sup>).

(b) Restriction.

(1) Except as provided in paragraph (c) of this clause, the Contractor shall not deliver under this contract any covered material melted or produced in any covered country, or any end item, manufactured in any covered country, that contains a covered material (10 U.S.C. 2533c).

(2)(i) For samarium-cobalt magnets and neodymium iron-boron magnets, this restriction includes -

(A) Melting samarium with cobalt to produce the samarium-cobalt alloy or melting neodymium with iron and boron to produce the neodymium-iron-boron alloy; and

(B) All subsequent phases of production of the magnets, such as powder formation, pressing, sintering or bonding, and magnetization.

(ii) The restriction on melting and producing of samarium-cobalt magnets is in addition to any applicable restrictions on melting of specialty metals if the clause at 252.225-7009, Restriction on Acquisition of Certain Articles Containing Specialty Metals, is included in the contract.

(3) For production of tantalum metal and alloys, this restriction includes the reduction of tantalum chemicals such as oxides, chlorides, or potassium salts, to metal powder and all subsequent phases of production of tantalum metal and alloys, such as consolidation of metal powders and melting.

(4) For production of tungsten metal powder and tungsten heavy alloy, this restriction includes -

(i) Atomization;

(ii) Calcination and reduction into powder;

(iii) Final consolidation of non-melt derived metal powders; and

(iv) All subsequent phases of production of tungsten metal powder, tungsten heavy alloy, or any finished or semi-finished component containing tungsten heavy alloy.

(c) Exceptions. This clause does not apply -

(1) To an end item that is -

(i) A commercially available off-the-shelf item, other than -

(A) A commercially available off-the-shelf item that is 50 percent or more tungsten by weight;  
or

(B) A tantalum metal, tantalum alloy, or tungsten heavy alloy mill product, such as bar, billet, slab, wire, cube, sphere, block, blank, plate, or sheet, that has not been incorporated into an end item, subsystem, assembly, or component;

(ii) An electronic device, unless otherwise specified in the contract; or

(iii) A neodymium-iron-boron magnet manufactured from recycled material if the milling of the recycled material and sintering of the final magnet takes place in the United States.

(2) If the authorized agency official concerned has made a nonavailability determination, in accordance with section 225.7018-4 of the Defense Federal Acquisition Regulation Supplement, that compliant covered materials of satisfactory quality and quantity, in the required form, cannot be procured as and when needed at a reasonable price.

(i) For tantalum metal, tantalum alloy, and tungsten heavy alloy, the term "required form" refers to the form of the mill product, such as bar, billet, wire, slab, plate, or sheet, in the grade appropriate for the production of a finished end item to be delivered to the Government under this contract; or a finished component assembled into an end item to be delivered to the Government under the contract.

(ii) For samarium-cobalt magnets or neodymium-iron-boron magnets, the term "required form" refers to the form and properties of the magnets.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in subcontracts and other contractual instruments that are for items containing a covered material, including subcontracts and other contractual instruments for commercial items, unless an exception in paragraph (c) of this clause applies. The Contractor shall not alter this clause other than to identify the appropriate parties.

(End of clause)

## 252.225-7972 PROHIBITION ON THE PROCUREMENT OF FOREIGN-MADE UNMANNED AIRCRAFT SYSTEMS (MAY 2020) (DEVIATION 2020-O0015)

(a) Prohibition. In accordance with section 848 of the National Defense Authorization Act for Fiscal Year 2020, the Contractor shall not provide or use in the performance of this contract -

(1) An unmanned aircraft system (UAS), or any related services or equipment, that -

(i) Is manufactured in the People's Republic of China or by an entity domiciled in the People's Republic of China;

(ii) Uses flight controllers, radios, data transmission devices, cameras, or gimbals manufactured in the People's Republic of China or by an entity domiciled in the People's Republic of China;

(iii) Uses a ground control system or operating software developed in the People's Republic of China or by an entity domiciled in the People's Republic of China; or

(iv) Uses network connectivity or data storage located in, or administered by an entity domiciled in, the People's Republic of China; or

(2) A system for the detection or identification of a UAS, or any related services or equipment, that is manufactured-

(i) In the People's Republic of China; or

(ii) By an entity domiciled in the People's Republic of China.

(b) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (b), in all subcontracts or other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

#### 252.232-7003 ELECTRONIC SUBMISSION OF PAYMENT REQUESTS AND RECEIVING REPORTS (DEC 2018)

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

Contract financing payment means an authorized Government disbursement of monies to a contractor prior to acceptance of supplies or services by the Government.

(1) Contract financing payments include--

(i) Advance payments;

(ii) Performance-based payments;

(iii) Commercial advance and interim payments;

(iv) Progress payments based on cost under the clause at Federal Acquisition Regulation (FAR) 52.232-16, Progress Payments;

(v) Progress payments based on a percentage or stage of completion (see FAR 32.102(e)), except those made under the clause at FAR 52.232-5, Payments Under Fixed-Price Construction Contracts, or the clause at FAR 52.232-10, Payments Under Fixed-Price Architect-Engineer Contracts; and

(vi) Interim payments under a cost reimbursement contract, except for a cost reimbursement contract for services when Alternate I of the clause at FAR 52.232-25, Prompt Payment, is used.

(2) Contract financing payments do not include--

(i) Invoice payments;

(ii) Payments for partial deliveries; or

(iii) Lease and rental payments.

Electronic form means any automated system that transmits information electronically from the initiating system to affected systems.

Invoice payment means a Government disbursement of monies to a contractor under a contract or other authorization for supplies or services accepted by the Government.

(1) Invoice payments include--

(i) Payments for partial deliveries that have been accepted by the Government;

(ii) Final cost or fee payments where amounts owed have been settled between the Government and the contractor;

(iii) For purposes of subpart 32.9 only, all payments made under the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, and the clause at 52.232-10, Payments Under Fixed-Price Architect-Engineer Contracts; and

(iv) Interim payments under a cost-reimbursement contract for services when Alternate I of the clause at 52.232-25, Prompt Payment, is used.

(2) Invoice payments do not include contract financing payments.

Payment request means any request for contract financing payment or invoice payment submitted by the Contractor under this contract or task or delivery order.

Receiving report means the data prepared in the manner and to the extent required by Appendix F, Material Inspection and Receiving Report, of the Defense Federal Acquisition Regulation Supplement.

(b) Except as provided in paragraph (d) of this clause, the Contractor shall submit payment requests and receiving reports in electronic form using Wide Area WorkFlow (WAWF). The Contractor shall prepare and furnish to the Government a receiving report at the time of each delivery of supplies or services under this contract or task or delivery order.

(c) Submit payment requests and receiving reports to WAWF in one of the following electronic formats:

- (1) Electronic Data Interchange.
- (2) Secure File Transfer Protocol.
- (3) Direct input through the WAWF website.

(d) The Contractor may submit a payment request and receiving report using methods other than WAWF only when--

(1) The Contractor has requested permission in writing to do so, and the Contracting Officer has provided instructions for a temporary alternative method of submission of payment requests and receiving reports in the contract administration data section of this contract or task or delivery order;

(2) DoD makes payment for commercial transportation services provided under a Government rate tender or a contract for transportation services using a DoD-approved electronic third party payment system or other exempted vendor payment/invoicing system (e.g., PowerTrack, Transportation Financial Management System, and Cargo and Billing System);

(3) DoD makes payment on a contract or task or delivery order for rendered health care services using the TRICARE Encounter Data System; or

(4) The Governmentwide commercial purchase card is used as the method of payment, in which case submission of only the receiving report in WAWF is required.

(e) Information regarding WAWF is available at <https://wawf.eb.mil/>.

(f) In addition to the requirements of this clause, the Contractor shall meet the requirements of the appropriate payment clauses in this contract when submitting payment requests.

(End of clause)

#### 252.232-7010 LEVIES ON CONTRACT PAYMENTS (DEC 2006)

(a) 26 U.S.C. 6331(h) authorizes the Internal Revenue Service (IRS) to continuously levy up to 100 percent of contract payments, up to the amount of tax debt.

(b) When a levy is imposed on a payment under this contract and the Contractor believes that the levy may result in an inability to perform the contract, the Contractor shall promptly notify the Procuring Contracting Officer in writing, with a copy to the Administrative Contracting Officer, and shall provide--

- (1) The total dollar amount of the levy;
  - (2) A statement that the Contractor believes that the levy may result in an inability to perform the contract, including rationale and adequate supporting documentation; and
  - (3) Advice as to whether the inability to perform may adversely affect national security, including rationale and adequate supporting documentation.
- (c) DoD shall promptly review the Contractor's assessment, and the Procuring Contracting Officer shall provide a written notification to the Contractor including--
- (1) A statement as to whether DoD agrees that the levy may result in an inability to perform the contract; and
  - (2)(i) If the levy may result in an inability to perform the contract and the lack of performance will adversely affect national security, the total amount of the monies collected that should be returned to the Contractor; or
  - (ii) If the levy may result in an inability to perform the contract but will not impact national security, a recommendation that the Contractor promptly notify the IRS to attempt to resolve the tax situation.
- (d) Any DoD determination under this clause is not subject to appeal under the Contract Disputes Act.

(End of clause)

252.232-7017 ACCELERATING PAYMENTS TO SMALL BUSINESS  
SUBCONTRACTORS--PROHIBITION ON FEES AND CONSIDERATION (APR 2020)

- (a) Definition. Accelerated payment, as used in this clause, means a payment made to a small business subcontractor as quickly as possible, with a goal of 15 days or less after receipt of payment from the Government or receipt of a proper invoice from the subcontractor, whichever is later.
- (b) In accordance with section 852 of Public Law 115-232, the Contractor shall not require any further consideration from or charge fees to the small business subcontractor when making accelerated payments, as defined in paragraph (a) of this clause, to subcontractors under the clause at FAR 52.232-40, Providing Accelerated Payments to Small Business Subcontractors.
- (c) Subcontracts. Include the substance of this clause, including this paragraph (c), in all subcontracts with small business concerns, including those for the acquisition of commercial items.

(End of clause)

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

(End of clause)

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the **solicitation**.

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

(2) The remaining **Forty (40%)** percent 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)

#### 252.242-7004 MATERIAL MANAGEMENT AND ACCOUNTING SYSTEM (MAY 2011)

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

(1) Material management and accounting system (MMAS) means the Contractor's system or systems for planning, controlling, and accounting for the acquisition, use, issuing, and disposition of material. Material management and accounting systems may be manual or automated. They may be stand-alone systems or they may be integrated with planning, engineering, estimating, purchasing, inventory, accounting, or other systems.

(2) Valid time-phased requirements means material that is--

- (i) Needed to fulfill the production plan, including reasonable quantities for scrap, shrinkage, yield, etc.; and
  - (ii) Charged/billed to contracts or other cost objectives in a manner consistent with the need to fulfill the production plan.
- (3) Contractor means a business unit as defined in section 31.001 of the Federal Acquisition Regulation (FAR).
- (4) Acceptable material management and accounting system means a MMAS that generally complies with the system criteria in paragraph (d) of this clause.
- (5) Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Defense to rely upon information produced by the system that is needed for management purposes.
- (b) General. The Contractor shall--
- (1) Maintain an MMAS that--
    - (i) Reasonably forecasts material requirements;
    - (ii) Ensures that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements; and
    - (iii) Maintains a consistent, equitable, and unbiased logic for costing of material transactions; and
  - (2) Assess its MMAS and take reasonable action to comply with the MMAS standards in paragraph (e) of this clause.
- (c) Disclosure and maintenance requirements. The Contractor shall--
- (1) Have policies, procedures, and operating instructions that adequately describe its MMAS;
  - (2) Provide to the Administrative Contracting Officer (ACO), upon request, the results of internal reviews that it has conducted to ensure compliance with established MMAS policies, procedures, and operating instructions; and
  - (3) Disclose significant changes in its MMAS to the ACO at least 30 days prior to implementation.
- (d) System criteria. The MMAS shall have adequate internal controls to ensure system and data integrity, and shall--
- (1) Have an adequate system description including policies, procedures, and operating instructions that comply with the Federal Acquisition Regulation and Defense Federal

Acquisition Regulation Supplement;

(2) Ensure that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements as impacted by minimum/economic order quantity restrictions.

(i) A 98 percent bill of material accuracy and a 95 percent master production schedule accuracy are desirable as a goal in order to ensure that requirements are both valid and appropriately time-phased.

(ii) If systems have accuracy levels below these, the Contractor shall provide adequate evidence that--

(A) There is no material harm to the Government due to lower accuracy levels; and

(B) The cost to meet the accuracy goals is excessive in relation to the impact on the Government;

(3) Provide a mechanism to identify, report, and resolve system control weaknesses and manual override. Systems should identify operational exceptions, such as excess/residual inventory, as soon as known;

(4) Provide audit trails and maintain records (manual and those in machine-readable form) necessary to evaluate system logic and to verify through transaction testing that the system is operating as desired;

(5) Establish and maintain adequate levels of record accuracy, and include reconciliation of recorded inventory quantities to physical inventory by part number on a periodic basis. A 95 percent accuracy level is desirable. If systems have an accuracy level below 95 percent, the Contractor shall provide adequate evidence that--

(i) There is no material harm to the Government due to lower accuracy levels; and

(ii) The cost to meet the accuracy goal is excessive in relation to the impact on the Government;

(6) Provide detailed descriptions of circumstances that will result in manual or system generated transfers of parts;

(7) Maintain a consistent, equitable, and unbiased logic for costing of material transactions as follows:

(i) The Contractor shall maintain and disclose written policies describing the transfer methodology and the loan/pay-back technique.

(ii) The costing methodology may be standard or actual cost, or any of the inventory costing methods in 48 CFR 9904.411-50(b). The Contractor shall maintain consistency across all contract and customer types, and from accounting period to accounting period for initial charging and transfer charging.

(iii) The system should transfer parts and associated costs within the same billing period. In the

few instances where this may not be appropriate, the Contractor may accomplish the material transaction using a loan/pay-back technique. The "loan/pay-back technique" means that the physical part is moved temporarily from the contract, but the cost of the part remains on the contract. The procedures for the loan/pay-back technique must be approved by the ACO. When the technique is used, the Contractor shall have controls to ensure--

(A) Parts are paid back expeditiously;

(B) Procedures and controls are in place to correct any overbilling that might occur;

(C) Monthly, at a minimum, identification of the borrowing contract and the date the part was borrowed; and

(D) The cost of the replacement part is charged to the borrowing contract;

(8) Where allocations from common inventory accounts are used, have controls (in addition to those in paragraphs (d)(2) and (7) of this clause) to ensure that--

(i) Reallocations and any credit due are processed no less frequently than the routine billing cycle;

(ii) Inventories retained for requirements that are not under contract are not allocated to contracts; and

(iii) Algorithms are maintained based on valid and current data;

(9) Have adequate controls to ensure that physically commingled inventories that may include material for which costs are charged or allocated to fixed-price, cost-reimbursement, and commercial contracts do not compromise requirements of any of the standards in paragraphs (d)(1) through (8) of this clause. Government-furnished material shall not be--

(i) Physically commingled with other material; or

(ii) Used on commercial work; and

(10) Be subjected to periodic internal reviews to ensure compliance with established policies and procedures.

(e) Significant deficiencies.

(1) The Contracting Officer will provide an initial determination to the Contractor, in writing, of any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.

(2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's MMAS. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing.

(3) The Contracting Officer will evaluate the Contractor's response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning--

(i) Remaining significant deficiencies;

(ii) The adequacy of any proposed or completed corrective action; and

(iii) System disapproval if the Contracting Officer determines that one or more significant deficiencies remain.

(f) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

(g) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's MMAS, and the contract includes the clause at 252.242-7005, Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

(End of clause)

#### 252.242-7006 ACCOUNTING SYSTEM ADMINISTRATION (FEB 2012)

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

(1) Acceptable accounting system means a system that complies with the system criteria in paragraph (c) of this clause to provide reasonable assurance that--

(i) Applicable laws and regulations are complied with;

(ii) The accounting system and cost data are reliable;

(iii) Risk of misallocations and mischarges are minimized; and

(iv) Contract allocations and charges are consistent with billing procedures.

(2) Accounting system means the Contractor's system or systems for accounting methods, procedures, and controls established to gather, record, classify, analyze, summarize, interpret, and present accurate and timely financial data for reporting in compliance with applicable laws, regulations, and management decisions, and may include subsystems for specific areas such as indirect and other direct costs, compensation, billing, labor, and general information technology.

(3) Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Defense to rely upon information produced by the system that is needed for management purposes.

(b) General. The Contractor shall establish and maintain an acceptable accounting system. Failure to maintain an acceptable accounting system, as defined in this clause, shall result in the withholding of payments if the contract includes the clause at 252.242-7005, Contractor Business Systems, and also may result in disapproval of the system.

(c) System criteria. The Contractor's accounting system shall provide for--

(1) A sound internal control environment, accounting framework, and organizational structure;

(2) Proper segregation of direct costs from indirect costs;

(3) Identification and accumulation of direct costs by contract;

(4) A logical and consistent method for the accumulation and allocation of indirect costs to intermediate and final cost objectives;

(5) Accumulation of costs under general ledger control;

(6) Reconciliation of subsidiary cost ledgers and cost objectives to general ledger;

(7) Approval and documentation of adjusting entries;

(8) Management reviews or internal audits of the system to ensure compliance with the Contractor's established policies, procedures, and accounting practices;

(9) A timekeeping system that identifies employees' labor by intermediate or final cost objectives;

(10) A labor distribution system that charges direct and indirect labor to the appropriate cost objectives;

(11) Interim (at least monthly) determination of costs charged to a contract through routine posting of books of account;

(12) Exclusion from costs charged to Government contracts of amounts which are not allowable in terms of Federal Acquisition Regulation (FAR) part 31, Contract Cost Principles and Procedures, and other contract provisions;

(13) Identification of costs by contract line item and by units (as if each unit or line item were a separate contract), if required by the contract;

(14) Segregation of preproduction costs from production costs, as applicable;

(15) Cost accounting information, as required--

- (i) By contract clauses concerning limitation of cost (FAR 52.232-20), limitation of funds (FAR 52.232-22), or allowable cost and payment (FAR 52.216-7); and
- (ii) To readily calculate indirect cost rates from the books of accounts;

(16) Billings that can be reconciled to the cost accounts for both current and cumulative amounts claimed and comply with contract terms;

(17) Adequate, reliable data for use in pricing follow-on acquisitions; and

(18) Accounting practices in accordance with standards promulgated by the Cost Accounting Standards Board, if applicable, otherwise, Generally Accepted Accounting Principles.

(d) Significant deficiencies.

(1) The Contracting Officer will provide an initial determination to the Contractor, in writing, on any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.

(2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's accounting system. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing.

(3) The Contracting Officer will evaluate the Contractor's response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning--

(i) Remaining significant deficiencies;

(ii) The adequacy of any proposed or completed corrective action; and

(iii) System disapproval, if the Contracting Officer determines that one or more significant deficiencies remain.

(e) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

(f) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's accounting system, and the contract includes the clause at 252.242-7005, Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

(End of clause)

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (DEC 2012)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

-----  
(Official's Name)

-----  
(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Certified cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Data other than certified cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if certified cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

(End of clause)



252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (FEB 2019)

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

"Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

"Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

"Foreign-flag vessel" means any vessel that is not a U.S.-flag vessel.

"Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

"Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

"Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

"U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if-

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of foreign-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

(1) Type, weight, and cube of cargo;

(2) Required shipping date;

(3) Special handling and discharge requirements;

(4) Loading and discharge points;

(5) Name of shipper and consignee;

(6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the

rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

- (1) Prime contract number;
- (2) Name of vessel;
- (3) Vessel flag of registry;
- (4) Date of loading;
- (5) Port of loading;
- (6) Port of final discharge;
- (7) Description of commodity;
- (8) Gross weight in pounds and cubic feet if available;
- (9) Total ocean freight in U.S. dollars; and
- (10) Name of the steamship company.

(f) If this contract exceeds the simplified acquisition threshold, the Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

- (1) No ocean transportation was used in the performance of this contract;
- (2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;
- (3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all foreign-flag ocean transportation; or
- (4) Ocean transportation was used and some or all of the shipments were made on foreign-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY
_____	_____	_____
_____	_____	_____
_____	_____	_____
TOTAL	_____	_____

(g) If this contract exceeds the simplified acquisition threshold and the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of foreign-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) If the Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies; however, after the award of this contract, the Contractor learns that supplies will be transported by sea, the Contractor--

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of this clause.

(i) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, including subcontracts for commercial items, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (i), in subcontracts that exceed the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (i), in subcontracts that are at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(End of clause)

SECTION 01 00 00

ADDITIONAL SPECIAL CONTRACT REQUIREMENTS

PART 1 GENERAL

1.1 SUBMITTALS

See the technical sections for approval and detail requirements for submittals. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES and the required technical section:

SD-11 Closeout Submittals

Contractor Prepared As-Built Drawings; G, SAM-OP-GW

1.2 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS

(a) The Contractor will be furnished with one CD-ROM containing a reproducible copy of the advertised solicitation, including all contract clauses, drawings, and specifications. Paper copies of the specifications and drawings will be the responsibility of the Contractor. The work shall conform to the specifications and the contract drawings listed in the technical provisions.

(b) Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work, but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

(c) The Contractor shall check all drawings furnished them immediately upon their receipt and shall promptly notify the Contracting Officer of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby.

(d) The list of drawings and maps provided in the Index Sheet of the Plans for this solicitation are hereby incorporated by reference into these specifications. Any schedules included in the drawings are for the purpose of defining requirements other than quantities.

NOTE: Refer to the folio of drawings for the index of drawings in this solicitation.

1.3 PHYSICAL DATA

Data and information furnished or referred to below is for the Contractor's information. The Government will not be responsible for any interpretation or conclusion drawn from the data or information by the Contractor.

(a) General: The indications of physical conditions on the drawings and in the specifications are the result of site investigations and

surveys.

(b) Location: The work to be done under these specifications is located within the bar portion Mobile, Alabama Shipping Channel, located in the southern most reach of the channel from Stations 2075+00 to 2189+58.71. The Ocean Dredge Material Disposal Site (ODMDS) for the project is located in the Gulf of Mexico, southwest of the channel. It is approximately 3 miles to the closest point, and approximately 7 miles from the furthest point. The current disposal site bottom elevations are approximately -38 to -46 feet Mean Lower Low Water (MLLW). Placed material shall not exceed elevation -30 feet MLLW.

(c) Contractor's Investigation Responsibility: The Contractor should investigate submerged, surface, and overhead structures in the work areas and other locations which may be necessary to traverse. The exact location, depths, and height of submarine cables, pipes, highlines, etc. (as applicable), are not known and it will be necessary for the Contractor to ascertain interference problems and notify the respective owners in advance of dredging operations. The Contractor shall make all arrangements with the respective owners of the structure to assure satisfactory completion of dredging in the vicinity with a minimum interruption of service, and shall perform operations in such a manner as will avoid damage to these facilities.

(d) Weather Conditions: The sites of the work are exposed to local disturbances in the Mobile Harbor, which may cause suspension of the work for short unknown periods of time. During tropical hurricanes which may occur from June to December, inclusive, the project channels do not afford a safe refuge for floating plant. There are no unusual currents except during floods, when velocities of 2 to 4 miles per hour may be expected; however, the Contractor should investigate all sites of work and determine for himself the requirements of the work. Under ordinary conditions, the Mean Tidal Range is 1.2 feet. The working season extends over the entire year. Tides in Mobile Harbor are affected by extended periods of strong north or south winds.

(e) Transportation Facilities: The work areas are accessible by water via the Gulf Intracoastal Waterway and the Gulf of Mexico. The Contractor shall investigate any limitations imposed by bridges or other structures on water access to the project site. Highway access (Federal, state, and local) is available to the near vicinity of all work areas. Rail and highway transportation is available to Mobile, Alabama. Water transportation is available to the site of the work. The Contractor shall make their own investigation of available roads for transportation, load limits for bridges and roads, and other road conditions affecting the transportation of materials and equipment to the work sites.

(f) Channel Traffic: The traffic using the Mobile, Alabama Shipping Channel is considered to be a combination of heavy and large commercial vessels, and various sized recreational craft, respectively. The type of traffic consists of general cargo ships, fuel tankers, tow boats, Navy ships, charter fishing boats, passenger boats, and pleasure craft. CAUTION: When navigation conditions become hazardous due to inclement weather (fog, storm, etc) or other circumstances, the Contractor shall maintain appropriate communication with project traffic. The Contractor shall particularly comply with all U.S. Coast Guard regulations pertaining to proper activation of fog (and any other) signaling devices (sound, light, etc).

(g) Obstruction of Navigation Channels: The Government will not undertake to keep the work areas and navigation channels 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 Rivers and Harbors Act approved 8 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs any navigation 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 their plant, including ranges, buoys, piles, and other marks placed by them under the contract in navigable waters or on shore.

#### 1.4 TIME EXTENSIONS

Notwithstanding any other provisions of this contract, it is mutually understood that the time extensions for changes in the work will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements so delayed and that the remaining contract completion dates for all other portions of the work will not be altered and may further provide for an equitable readjustment of liquidated damages under the new completion schedule. Change orders involving time extensions must be obtained in writing from the Government's Representative.

#### 1.5 CONTRACTOR PREPARED AS-BUILT DRAWINGS

(a) General: In accordance with SPECIAL CONTRACT REQUIREMENT paragraph: CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS, the Government will furnish the Contractor on CD-ROM one electronic set of solicitation drawing files and any amendments for use in preparation of as-built drawings by the Contractor. Copies of the drawings will be the responsibility of the Contractor. The as-built drawings shall be a record of the construction as completed by the Contractor. They shall include all the information shown on the contract set of drawings and a record of all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the work, all additional work not appearing on the contract drawings, and all changes which are made after final inspection of the contract work. In the event the Contractor accomplishes additional work which changes the as-built conditions after submission of the as-built drawings, the Contractor shall furnish revised and/or additional drawings as required to depict as-built conditions. The requirements for these additional drawings will be the same as for the as-built drawings included in the original submittal.

(b) Red line as-built drawings: The Contractor shall have on his staff, personnel to mark up a set of paper copy construction drawings to show the as-built conditions. These as-built marked copies shall be kept current and available on the job site at all times. All changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded, as the events occur, by means of details and notes. The Contractor shall call attention to entries by red lining areas affected. The red line as-built drawings will be jointly inspected for accuracy and

completeness by the Contracting Officer's Representative and a responsible representative of the Contractor prior to submittal of each request for payment. The Contracting Officer Representative's approval of the current status of the as-built drawings shall be a prerequisite to the approval of request for progress payment and request for final payment under the contract. The drawings shall show the following information, but not be limited thereto:

(1) The location and description of any utility lines or other installations of any kind or description known to exist within the construction area that are not already shown on the contract drawings. The location includes dimensions to permanent features.

(2) The location and dimensions of any changes within the construction area.

(3) All changes or modifications which result from the final inspection.

(c) Submittal of as-built drawings for review and approval: The Contractor shall participate in monthly review meetings with the Contracting Officer's Representative to show the progress made the preceding month and make all required changes. At time of final construction inspection, the Contractor shall submit one copy of the red lined as-built drawings to the Contracting Officer's Representative for his review and approval. The as-built drawings shall be certified as to their correctness by the signature of an authorized representative of the Contractor. Upon Government approval of the Contractor's red lined copy of the as-built drawings, the Contractor shall prepare and provide two electronic sets of as-built drawings by incorporating the red line marked up notations on the construction drawings into the electronic set of solicitation drawings and amendments. In addition to the electronic sets of as-built drawings which shall be submitted on a CD-ROM, the Contractor shall also submit a full size set of as-built paper drawings. Submittals are to be to the Contracting Officer's Representative not later than ten (10) calendar days after project completion date.

(d) Final Drawing Format:

(1) The solicitation drawing files and any amendments thereto will be furnished to the Contractor in electronic format. The solicitation drawing files have been prepared using MicroStation. The Contractor shall utilize a file format that is compatible with the latest version of MicroStation to revise/redraft each solicitation drawing and/or amendment drawing to reflect all changes made during construction as indicated by the red line marked up notations on the construction drawings. Revisions/redrafting shall match the font styles, sizes, and formats; line weights/thicknesses and styles/types; and all other drafting elements used on the solicitation drawing/amendments. All elements must be incorporated into each as-built drawing file; the use of reference files shall not be permitted.

(2) All revisions made to the solicitation drawings and/or amendment drawings to reflect changes made during construction shall be flagged and shall have the revision block completed as follows. The entry in the description column of the revision block shall read "AS-BUILT". The date of the revision and one approving initial from a responsible person within the Contractor's Firm shall also be included in the revision block. Above the drawing title block the drawing will be labeled in bold



letters "AS-BUILT". The flagged changes and revision block format shall be in accordance with the examples shown in the Mobile District Design Manual located on the Internet at

<http://www.sam.usace.army.mil/Missions/MilitaryMissions/Engineering/Engineering-Design-Manual/>

The Contractor shall also furnish a revised index of drawings to match the actual design drawings. The drawing title blocks shall be in a uniform format to match the requirements as specified in the Design Manual.

(3) The two electronic sets of as-built drawing files shall be submitted in a format that is compatible with the latest version of MicroStation.

(4) The hard copy reproducible set of as-built drawings shall be submitted unbound on paper. The drawings shall be the full size.

(e) Payment: No separate payment will be made for preparation of the as-built drawings required under this contract. All costs will be considered a subsidiary obligation of the contract.

#### 1.6 ATTENDANT PLANT

(a) Attendant plant shall be composed of such barges, fuel, water, pipe derrick, anchor, etc., floating, submerged, and slip joint discharge pipe, and other attendant or auxiliary plant as may be required for operations under these specifications whether or not these items are specifically mentioned. The auxiliary and attendant plant shall be in good condition and of sufficient size and capability to efficiently serve the dredge.

(b) Radio Telephone: The Contractor shall furnish and maintain the following radios for communication with the Corps of Engineers, United States Coast Guard, and other vessels: Radio(s) must be certified as being operable on the specified frequencies and powers by a licensed radio technician. A copy of the certification must be furnished to the Contracting Officer prior to final acceptance of the dredging plant.

(1) A Marine VHF Radio, FCC type accepted with the following channels: Channel 16, (156.8 MHZ), Channel 13, (156.65 MHZ), Channel 12, (156.6 MHZ), Channel 14, (156.7 MHZ), and Channels 26 and 28 for public correspondence. A separate receiver must be provided on Channel 13, (156.6 MHZ) in compliance with Public Law 92-63.

(2) In addition to the above-mentioned radios, the Contractor shall provide additional space in the inspector's office as specified in the paragraph entitled "Inspector's Office" for placement of one VHF marine radio. The radio shall be able to receive all VHF marine channels and scan two channels continuously. The radio will be furnished at the expense of the Contractor.

(c) Transport Vessel: The Contractor shall provide one transport vessel, with twin propellers, not less than 40 feet in overall length, with enclosed space for three passengers, to adequately operate in all areas included in the scope of work. This vessel must have an operator on site at all times; be capable of traveling at a speed of 20 knots (23 MPH) or greater in good weather and capable of traveling safely at night and in intense fog; (such vessel shall meet or exceed US Coast Guard regulations

for vessels 65 feet or less in length); and the vessel shall have a Certificate of Inspection by the US Coast Guard, or at least from a Marine Surveyor. This vessel shall be for the primary use of the Government Inspector. The use of this vessel for Contractor's crew changes, or any other use of this vessel by the Contractor shall be secondary to the Government Inspector shift changes. This vessel shall be equipped with the following at a minimum: built-in fuel tanks with correctly operating fuel gauges; marine and company radios; windshield wipers; running and spot lights; and all required survey equipment. The Contractor shall secure satisfactory landing location for this vessel.

#### 1.7 PRECONSTRUCTION CONFERENCE

(a) A preconstruction conference will be arranged by the Government's representative after award of contract and before commencement of work. The Government's representative will notify the Contractor of the time and date set for the meeting. At this conference, the Contractor shall be oriented with respect to Government procedures and line of authority, contractual, administrative, and construction matters. Additionally, a schedule of required submittals will be discussed.

(b) The Contractor shall bring to this conference the submittals listed in Section 01 33 00 Paragraph entitled Preconstruction Submittals in either completed or draft form.

#### 1.8 PROJECT SIGN

The Contractor shall furnish and install a project sign at the location designated by the Contracting Officer's Representative within thirty (30) days after notice to proceed in accordance with EP310-1-6a, attached following this section. Example sign provided, final sign layout to be coordinated with the Contracting Officer's Representative through the Submittal Process.

#### 1.9 DATUM AND BENCHMARKS

The plane of reference of North American Vertical Datum of 1988 (NAVD88) as used in these specifications is that determined by the benchmark and tide gage data as on file at the U.S Army, Corps of Engineers, Mobile District Office and the Irvington Site Office. The Contractor can obtain such data from the Project Engineer, Irvington Site Office, telephone (251)957-6019.

#### 1.10 FINAL EXAMINATION AND ACCEPTANCE

(a) As soon as practicable (within 14 calendar working days or less if agreed to by the Contracting Officer) after completion of the entire work or any designated section thereof (if the work is divided into sections), as in the opinion of the Contracting Officer, the work in this section will not be subject to damage by further operations under the contract, such work (required dredging prism) will be thoroughly examined at the cost and expense of the Government by sounding or by sweeping, or both, as determined by the Contracting Officer, for determination of ACCEPTABILITY of PERFORMANCE by the Contractor. Should any shoals, lumps, or other lack of contract required dredging prism depth, width, or slope (i.e. lack of acceptable contract performance) be disclosed by this examination, the Contractor will be required to remove same by dragging or dredging the affected surface until the acceptable condition is corrected. Before-dredging and after-dredging quantity computations will be made

using this 1V:7H slope. Acceptance will be based on the required dredging prism only. The contract drawings include typical sections showing the existing channel dimensions, the required O&M dredging prism, the required new work dredging prism, and the allowable overdepth. If the unacceptable shoal (work) area(s) of the channel bottom/slope is soft and the shoal (work) area(s) is small and forms no material obstruction to navigation, the removal of such shoal(s) may be waived at the discretion of the Contracting Officer. If re-dredging is required to correct the unacceptable work, the dredging will be paid at the current unit price for dredging, however, the maximum payment quantity (original and re-dredgings) will not exceed the original computed pay quantity in the required dredging prism (plus any applicable allowable overdepth quantity, as applicable) based on the original before-dredging surveys. The Contractor or their authorized representative will be notified when soundings and/or sweepings are to be made, and will be permitted to accompany the survey party. When the original or unacceptable area(s) is found to be in a satisfactory condition, it will be accepted finally. Should more than two sounding or sweeping operations by the Government over an area be necessary by reason of work for the removal of unacceptable shoals disclosed at a prior sounding or sweeping, the cost of such third and any subsequent sounding or sweeping operations will be charged against the Contractor at the rate of \$2,200.00 per day for each day in which the Government (or Government A-E Contractor) plant is engaged in sounding or sweeping and/or is enroute to or from the site or held at or near the said site for such operations. For the purpose of acceptance, the work to be done will be divided into approximate 600-foot sections as defined below:

Dredging Reach No.	From Station	To Station
1-20	2075+00	2189+00
21 (Partial)	2189+00	2189+58.71

(b) Final acceptance of the whole or part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

(c) After acceptance by the Government, of the whole or part of the work, but before the Contractor has effected demobilization, should any shoals, lumps, or other lack of required contract depth be disclosed by an examination made by the Government, the Contractor may be requested to remove any such shoal by using the on-site dredging plant and process, to be paid at the original contract rate for dredging in this location. This additional dredging is subject to a supplemental agreement under the contract and is only activated by the Contracting Officer (and if funds are available).

(d) Shoaling in the dredging prism, which occurs in the whole or part of the work not yet offered by the Contractor as candidate for acceptance examination by the Government, is the responsibility of the Contractor (notwithstanding other clauses or provisions of this contract). The Contractor should order the accomplishment of all the work of this contract in such a manner that causes the least exposure to such in-process shoaling.

1.11 PERFORMANCE EVALUATION OF CONTRACTOR

As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluation may be prepared at any time during the contract performance when determined to be in the best interest of the Government.

The evaluation will be completed in the Contractor Performance Assessment Reporting System (CPARS), and the Contractor will be rated either exceptional, very good, satisfactory, marginal, or unsatisfactory in the areas of Quality, Schedule, Cost Control, Management, Small Business, Regulatory, and Other Areas. The Contractor will be advised of any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation, and all Contractor comments will be made a part of the official records. Performance Evaluation Reports will be available to all DOD Contracting offices for their future use in determining Contractor responsibility, in compliance with DFARS 36.201(c)(1).

-- End of Section --

The use of signs to identify Corps managed or supervised design, construction, and rehabilitation projects - both for military and civil works - is an important part of efforts to keep the public informed of Corps work. For this purpose, a construction project sign package has been adopted. This package consists of two signs: one for project identification and the other to show on-the-job safety performance of the contractor.

These two signs are to be displayed side by side and mounted for reading by passing viewers. Exact placement location will be designated by the contracting officer's representative.

The panel sizes and graphic formats have been standardized for visual consistency throughout all Corps operations.

Panels are fabricated using HDO plywood or aluminum with dimensional lumber uprights and bracing. The sign faces are nonreflective vinyl.

All legends are to be die-cut or computer-cut in the sizes and typefaces specified and applied to the white panel background following the graphic formats shown on pages 16-2 and 16-3. The Communication Red panel on the left side of the construction project sign with Corps Signature (reverse version) is screen-printed onto the white background.

A display of these two signs is shown on the following two pages. Mounting and fabrication details are provided on page 16-4.

Special applications or situations not covered in these guidelines should be referred to the district Sign Program Manager.

Below are two samples of the Construction Project Identification sign showing how this panel is adaptable for use to identify either military (top) or civil works projects (bottom). The graphic format for this 4'x 6' sign panel follows the legend guidelines and layout as specified below. The large 4'x 4' section of the panel on the right is to be white with black legend. The 2'x 4' section of the sign on the left

with the full Corps Signature (reverse version) is to be screen-printed Communication Red on the white background. The designation of a sponsor in the area indicated is optional with Military or Civil Works construction signs. Signs may list one sponsoring entity. If agreement on a sponsor designation cannot be achieved, the area should be left blank.

This sign is to be placed with the Safety Performance sign shown on the following page. Mounting and fabrication details are provided on page 16-4.

Special applications or situations not covered in these guidelines should be referred to the district Sign Program Manager.

Modified IAW ECB 2020-1

Legend Group 1: One- to two-line description of Corps relationship to project.  
Color: White  
Typeface: 1.25" Helvetica Regular  
Maximum line length: 19"

Legend Group 2: Division or District Name (optional). Placed below 10.5" reverse Signature (6" Castle).  
Color: White  
Typeface: 1.25" Helvetica Regular

Legend Group 2a: One- to three-line identification of Military or Civil Works sponsor (optional). Place below Corps Signature to cross-align with Group 5a-b.  
Color: White  
Typeface: 1.25" Helvetica Regular  
Maximum line length: 19"

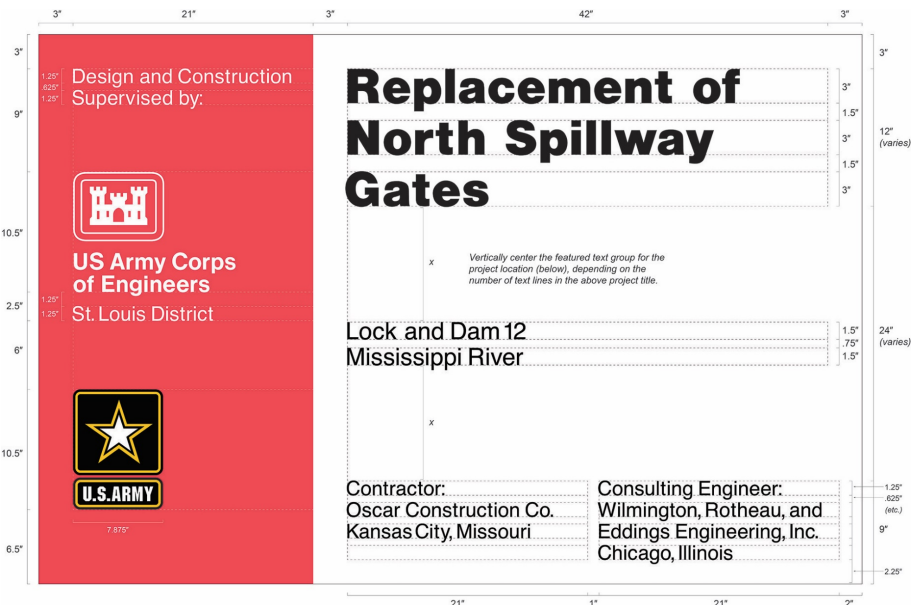
Legend Group 3: One- to three-line project title legend describes the work being done under this contract.  
Color: Black  
Typeface: 3" Helvetica Bold  
Maximum line length: 42"

Legend Group 4: One- to two-line identification of project or facility (civil works) or name of sponsoring department (military).  
Color: Black  
Typeface: 1.5" Helvetica Regular  
Maximum line length: 42"

Cross-align the first line of Legend Group 4 with the first line of the Corps Signature (US Army Corps) as shown.

Legend Groups 5a-b: One- to five-line identification of prime contractors including: type (architect, general contractor, etc.), corporate or firm name, city, state. Use of Legend Group 5 is optional.  
Color: Black  
Typeface: 1.25" Helvetica Regular  
Maximum line length: 21"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-01	various	4'x6'	4"x4"	HDO-3	48"	WH-RD/BK

Each contractor's safety record is to be posted on Corps managed or supervised construction projects and mounted with the Construction Project Identification sign specified on page 16-2.

The graphic format, color, size and typeface used on the sign are to be reproduced exactly as specified below. The

title with First Aid logo in the top section of the sign, and the performance record captions are standard for all signs of this type. Legend groups 2 and 3 below identify the project and the contractor and are to be placed on the sign as shown.

Safety record numbers are mounted on individual metal plates and are screw-

mounted to the background to allow for daily revisions to posted safety performance record.

Special applications or situations not covered in these guidelines should be referred to the district Sign Program Manager.

Legend Group 1: Standard two-line title "Safety is a Job Requirement" with 8" (outside diameter) Safety Green first aid logo.  
Color: To match Pantone system 347  
Typeface: 3" Helvetica Bold  
Color: Black

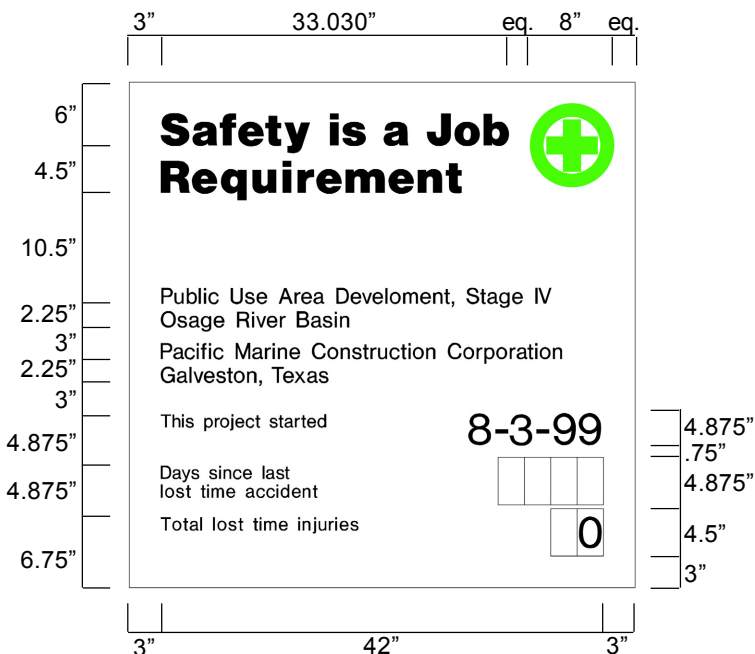
Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project.  
Color: Black  
Typeface: 1.5" Helvetica Regular  
Maximum line length: 42"

Legend Group 3: One- to two-line identification: name of prime contractor and city, state address. Color: Black  
Typeface: 1.5" Helvetica Regular  
Maximum line length: 42"

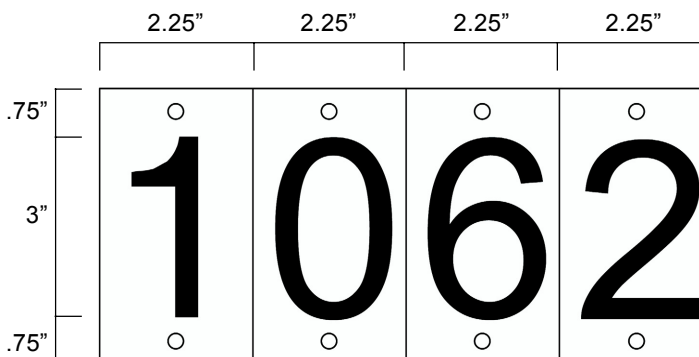
Legend Group 4: Standard safety record captions as shown.  
Color: Black  
Typeface: 1.25" Helvetica Regular

Replaceable numbers are to be mounted on white .060 aluminum plates and screw-mounted to background.  
Color: Black  
Typeface: 3" Helvetica Regular  
Plate size: 2.5" x 4.5"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4'x4'	4"x4"	HDO-3	48"	WH/BK-SG



All Construction Project Identification signs and Safety Performance signs are to be fabricated and installed as described below. The signs are to be erected at a location designated by the contracting officer representative and shall conform to the size, format, and typographic standards shown on pages 16-2 and 16-3. Detailed specifications for HDO plywood panel preparation are provided in Appendix B.

Shown below the mounting diagram is a panel layout grid with spaces provided for project information. Photocopy this page and use as a worksheet when preparing sign legend orders.

For additional information on the proper method to prepare sign panel graphics, contact the district Sign Program Manager.

The sign panels are to be fabricated from .75" High Density Overlay Plywood. Panel preparation to follow HDO specifications provided in Appendix B.

Sign graphics to be prepared on a white nonreflective vinyl film with positionable adhesive backing.

All graphics except for the Communication Red background with Corps Signature on the project sign are to be die-cut or computer-cut nonreflective vinyl, prespaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown on pages 16-2 and 16-3.

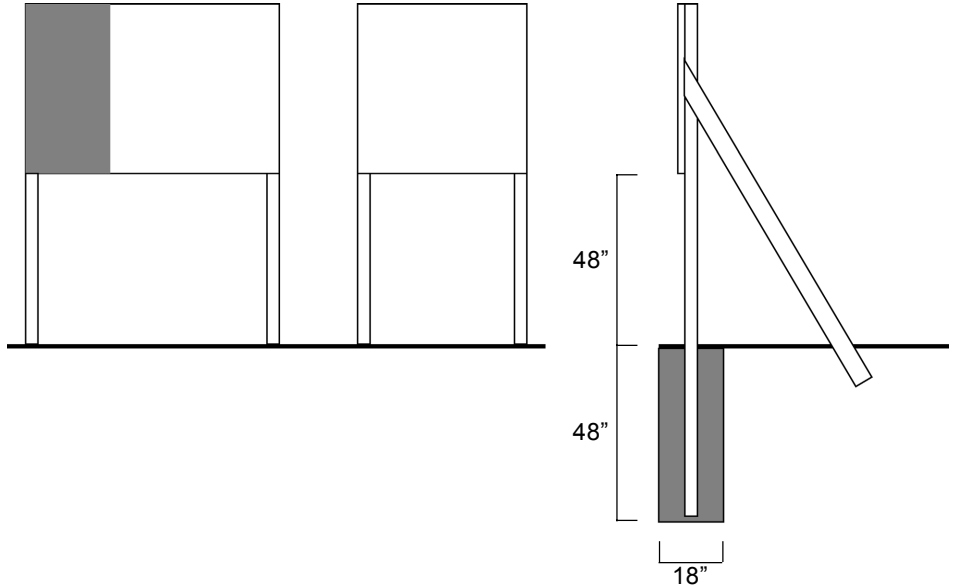
The 2'x 4' Communication Red panel (to match Pantone system 032) with full Corps Signature (reverse version) is to be screen-printed on the white background. Identification of the district or division may be applied under the signature with white cut vinyl letters prepared to Corps standards.

Drill and insert six (6) .375" T-nuts from the front face of the HDO sign panel. Position holes as shown. Flange of T-nut to be flush with sign face.

Apply graphic panel to prepared HDO plywood panel following manufacturers' instructions.

Sign uprights to be structural grade 4" x 4" treated Douglas Fir or Southern Yellow Pine, No.1 or better. Post to be 12' long. Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (.5") back of hole to accept socket head cap screw (4" x .375").

Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" struts on inside face of uprights to reinforce installation as shown.



**Construction Project Identification Sign**  
**Legend Group 1: Corps Relationship**

1. \_\_\_\_\_
2. \_\_\_\_\_

**Legend Group 2: Division/District Name**

1. \_\_\_\_\_
2. \_\_\_\_\_

**Legend Group 2a: Military/Civil Works Sponsor**

1. \_\_\_\_\_
2. \_\_\_\_\_

**Legend Group 3: Project Title**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Legend Group 4: Facility Name**

1. \_\_\_\_\_
2. \_\_\_\_\_

**Legend Group 5: Contractor/A&E**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**Legend Group 5b: Contractor/A&E**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**Safety Performance Sign**

**Legend Group 2: Project Title**

1. \_\_\_\_\_
2. \_\_\_\_\_

**Legend Group 3: Contractor/A&E**

1. \_\_\_\_\_
2. \_\_\_\_\_



"General Decision Number: AL20200005 01/03/2020

Superseded General Decision Number: AL20190005

State: Alabama

Construction Type: Heavy Dredging

Counties: Alabama 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 \$10.80 for calendar year 2020 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 \$10.80 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 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). 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](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/03/2020

\* SUAL1990-006 02/15/1990

	Rates	Fringes
Derrick Operator.....	\$ 7.25	
Dozer Operator.....	\$ 7.25	
Dredge (16' and Over), Assistant Engineer		
First Assistant Engineer....	\$ 7.25	
Second Assistant Engineer...	\$ 7.25	
Third Assistant Engineer....	\$ 7.25	
Dredge (16' and Over), Deckhand.....	\$ 7.25	

Dredge (16' and Over), Fireman...	\$ 7.25
Dredge (16' and Over), Leverman.....	\$ 7.25
Dredge (16' and Over), Oiler.....	\$ 7.25
Dredge (16' and Over), Shoreman.....	\$ 7.25
Dredge (16' and Over), Tender Operator.....	\$ 7.25
Dredge (16' and Over), Truck Driver.....	\$ 7.25
Dredge (Under 16'), Deckhand.....	\$ 7.25
Dredge (Under 16'), Leverman.....	\$ 7.25
Dredge (Under 16'), Oiler.....	\$ 7.25
Dredge (Under 16'), Tender Operator.....	\$ 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
Operator.....	\$ 7.25

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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](http://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)).

-----

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 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, 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.  
=====

END OF GENERAL DECISION

"

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## 1. BOARD OF CONTRACT APPEALS

The agency board of contract appeals having jurisdiction over all appeals from final decisions of the Contracting Officer under the Contract Disputes Act of 1978 is the Armed Services Board of Contract Appeals, Skyline Six, 5109 Leesburg Pike, 7TH Floor, Falls Church, Virginia 22041.

End of Paragraph

## 2. REQUESTS FOR INFORMATION

Any questions about this solicitation, including technical questions about plans and specifications, shall be submitted via the Bidder Inquiry Portal in ProjNet at <https://www.projnet.org>. To submit and review inquiry items, prospective vendors will need to use the Bidder Inquiry Key presented below and follow the instructions listed below the key for access. A prospective vendor who submits a comment/question will receive an acknowledgement of their comment/question via email, followed by an answer to the comment/question after it has been processed by our technical team. All timely questions and approved answers will be made available through ProjNet.

Questions shall be submitted no later than **August 19, 2020** at 2:00 p.m. Central Time to allow time for a response, and amendment to the solicitation if necessary. On this date and time the portal will be closed.

For technical questions, no other means of communication, e-mail, fax, or telephone will be accepted. Oral exchanges between Offerors or Bidders and the government prior to award of the contract will not be binding. In addition to information available to Offerors or Bidders on the Bidder Inquiry Portal, any information concerning this solicitation will be furnished to all Offerors or Bidders as an amendment to the solicitation if the information is necessary to the submittal of offers or bids.

**The Solicitation Number is: W9127820B0003**  
**The Bidder Inquiry Key is: 25CK2P-Q5MDMP**

### **Specific Instructions for ProjNet Bid Inquiry Access:**

1. From the ProjNet home page linked above, click on **Quick Add** on the upper right side of the screen.
2. Identify the Agency. This should be marked as **USACE**.
3. Key. Enter the **Bidder Inquiry Key** listed above.
4. Email. Enter the email address you would like to use for communication.
5. Click Continue. A page will then open saying that a user account was not found and will ask you to create one using the provided form.
6. Enter your First Name, Last Name, Company, City, State, Phone, Email, Secret Question, Secret Answer, and Time Zone. Make sure to remember your Secret Question and Answer as they will be used from this point on to access the ProjNet system.
7. Click Add User. Once this is completed you are now registered within ProjNet and are currently logged into the system.

### **Specific Instructions for Future ProjNet Bid Inquiry Access:**

1. For future access to ProjNet, you will not be emailed any type of password. You will utilize your Secret Question and Secret Answer to log in.
2. From the ProjNet home page linked above, click on **Quick Add** on the upper right side of the screen.
3. Identify the Agency. This should be marked as **USACE**.



4. Key. Enter the **Bidder Inquiry Key** listed above.
5. Email. Enter the email address you used to register previously in ProjNet.
6. Click Continue. A page will then open asking you to enter the answer to your Secret Question.
7. Enter your Secret Answer and click Login. Once this is completed you are now logged into the system.

Note: Questions/comments should be entered in the system one at a time. Lists of questions uploaded into ProjNet, regardless of the format, will not be answered.

Offerors are requested to review the solicitation and amendments in their entirety, as well as to review the Bidder Inquiry Portal for previous questions and responses, prior to submission of a new inquiry on the Portal.

**CAUTION:** ANY INQUIRY SUBMITTED AND ANSWERED WITHIN THIS SYSTEM, WILL BE ACCESSIBLE TO VIEW BY ALL INTERESTED OFFERORS OR BIDDERS ON THIS SOLICITATION.

The call center for the ProjNet operates weekdays from 8 AM to 5 PM U.S. Central Time Zone. The telephone number is 1-800-428-HELP.

End of Paragraph

### 3. DESCRIPTION OF WORK

In general, the work for Phase 1 of the Mobile Harbor, Alabama Project shall consist of deepening and widening portions of the Bar Channel located south of Dauphin Island and the Fort Morgan Peninsula.

NOTE: The above general outline of features of the work does not in any way limit the responsibility of the Contractor to perform all work and furnish all plant, labor, equipment and materials required by the specifications and the drawings referred to therein. The cost of this work is estimated to be between \$10,000,000 and \$25,000,000.

End of Paragraph

### 4. PREAWARD INFORMATION

Each bidder shall furnish either with his bid or within 3 days after a request is made for submittal of preaward data a statement of whether he is now or ever has been engaged in any work similar to that covered by the specifications herein, the dollar value thereof, the year in which such work was performed, and the manner of its execution, and giving such other information as will tend to show the bidder's ability to prosecute the required work. The "such other information" referred to above shall include but is not limited to the following:

- a. The name and address of the office or firm under which such similar work was performed. Include names and telephone numbers of personnel within each organization who are familiar with the prospective contractor's performance.
- b. A list of key personnel available for the instant project and their qualifications.

- c. A copy of bidder's latest financial statement, including the names of banks or other financial institutions with which the bidder conducts business. If the financial statement is more than 60 days old, a certificate should be attached stating that the financial condition is substantially the same, or if not the same, the changes that have taken place. Such statements will be treated as confidential.
- d. A list of present commitments, including the dollar value thereof, and name of office under which the work is being performed. Include names and telephone numbers of personnel within each organization who are familiar with the prospective contractor's performance.
- e. If the bid exceeds \$1,000,000 and the prospective contractor is a large business concern, he must submit a subcontracting plan in compliance with the Contract Clause entitled SMALL BUSINESS SUBCONTRACTING PLAN.

End of Paragraph

## 5. CONTRACT PRICES - BIDDING SCHEDULE

Payment for the various items listed in the Bidding Schedule shall constitute full compensation for furnishing all plant, labor, equipment, appliances, materials and bonds (performance and payment), and for performing all operations required to complete the work in conformity with the drawings and specifications. All costs for work not specifically mentioned in the Bidding Schedule shall be included in the contract prices for the items listed.

End of Paragraph

## 6. REQUIRED INSURANCE

The Contractor shall procure and maintain during the entire period of his performance under this contract, the following minimum insurance in accordance with the Contract Clause entitled "Insurance-Work on a Government Installation." Workmen's Compensation and Employers' liability Insurance:

Workmen's Compensation and Occupational Disease Coverage in accordance with statutory limits.  
Employers' Liability Coverage with a minimum limit of \$100,000.

Comprehensive Automobile Liability Insurance:

Bodily injury coverage with minimum limits of \$200,000 per person and \$500,000 per occurrence. Property Damage Coverage with a minimum limit of \$20,000 per occurrence.

Comprehensive General Liability Insurance:

Bodily injury coverage with minimum limits of \$500,000 per occurrence.

End of Paragraph

## 7. EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE

(a) This clause does not apply to terminations.

(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 retrospective 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 Paragraph

## 8. U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385- 1-1

This paragraph applies to contracts and purchase orders that require the contractor to comply with EM 385-1-1 (e.g., contracts that include the Accident Prevention clause at FAR 52.236-13 and/or other safety provisions). EM 385-1-1 and its changes are available at <http://www.usace.army.mil/Safety-and-Occupational-Health/EM-385-1-1-2008-Being-Revised/>. The Contractor shall be responsible for complying with the current edition and all changes posted on the web through the date that is 10 calendar days prior to the date offers are due. If the solicitation is amended to extend the time set for receipt of offers, the 10 calendar days rule stated above shall be applied against the amended date. (For example, if offers are due on 10 April, all changes posted on or before 31 March shall apply to the contract. If the time for receipt of offers is extended from 10 April to 20 April, all changes posted on or before 10 April shall apply to the contract.)

End of Paragraph

## 9. AFFILIATED BIDDERS

(a) Business concerns are affiliates of each other when, either directly or indirectly, (1) one concern controls or has the power to control the other, or (2) a third party controls or has the power to control both.

(b) Each bidder shall submit with its bid an affidavit stating that it has no affiliates, or containing the following information.

(1) The names and addresses of all affiliates of the bidder.

(2) The names and addresses of all persons and concerns exercising control or ownership of the bidder and any or all of its affiliates, and whether they exercise such control or ownership as common officers, directors, stockholders, holding controlling interest, or otherwise.

Please check when applicable:

\_\_\_\_\_ The offeror certifies that it has no affiliates.

\_\_\_\_\_ The offeror certifies that it is affiliated with the concerns designated on an attached affidavit.

End of Paragraph

## 10. MANPOWER REPORTING (DEC 2012)

The Office of the Assistant Secretary of the Army (Manpower & Reserve Affairs) operates and maintains a secure Army data collection site where the contractor will report ALL contractor manpower (including subcontractor manpower) required for performance of this contract. The contractor is required to completely fill in all the information in the format using the following web address "<https://cmra.army.mil>". The required information includes:

- (1) Contracting Office, Contracting Officer, Contracting Officer's Technical Representative;
- (2) Contract number, including task and delivery order number;
- (3) Beginning and ending dates covered by reporting period;
- (4) Contractor name, address, phone number, e-mail address, identity of contractor employee entering data;
- (5) Estimated direct labor hours (including subcontractors);
- (6) Estimated direct labor dollars paid this reporting period (including subcontractors);
- (7) Total payments (including subcontractors);
- (8) Predominant Federal Service Code (FSC) reflecting services provided by contractor (and separate predominant FSC for each subcontractor if different);
- (9) Estimated data collection cost;

(10) Organizational title associated with the Unit Identification Code (UIC) for the Army Requiring Activity (the Army Requiring Activity is responsible for providing the contractor with its UIC for the purposes of reporting this information);

**Note: UIC for Mobile District Civil Works funded projects is W2SR04 and Military funded projects is W07404. If you are unsure of the funding type, contact your COR or Contract Specialist.**

(11) Locations where contractor and subcontractors perform the work (specified by zip code in the United States and nearest city, country, when in an overseas location, using standardized nomenclature provided on website);

(12) Presence of deployment or contingency contract language; and

(13) Number of contractor and subcontractor employees deployed in theater this reporting period (by country).

As part of its submission, the contractor will also provide the estimated total cost (if any) incurred to comply with this reporting requirement. Reporting period will be the period of performance not to exceed 12 months ending September 30 of each government fiscal year and must be reported by 31 October of each calendar year. Contractors may use a direct XML data transfer to the database server or fill in the fields on the website. The XML direct transfer is a format for transferring files from a contractor's systems to the secure web site without the need for separate data entries for each required data element at the web site. The specific formats for the XML direct transfer may be downloaded from the web site.

(End of clause)

## 11. MANUALS AND PUBLICATIONS

Engineering manuals and Concrete Research Division Publications may be obtained from the addresses given below.

Engineering Manuals:

U. S. Army, Corps of Engineers  
Publications Depot  
2803 -52nd Avenue  
Hyattsville, MD 20781-1102

Concrete Research Division Publications:

U.S. Army Engineer Waterways Experiment Station  
ATTN: Publications Distribution Unit  
P.O. Box 631  
Vicksburg, MS 39180

End of Paragraph

## 12. BULLETIN BOARD

Immediately upon beginning of work under this contract, the Contractor shall provide at the job site a weatherproof glass-covered bulletin board for displaying the fair employment poster, wage rates, and safety bulletins and posters. Emergency telephone numbers and reporting instructions for ambulance, physician, hospital, fire and police shall be posted. The bulletin board shall be located in a conspicuous place easily accessible to all and legible copies of the aforementioned data shall be displayed until work under the contract is completed. No direct payment will be made for the bulletin board.

End of Paragraph

## 13. LABOR REPORTS

The Contractor shall promptly furnish and shall cause any subcontractors to furnish in like manner within 7 days after the regular payment date of each weekly payroll to the Contracting Officer, a copy of such payroll together with a statement of compliance with respect to the wages paid each of its employees (which shall not be deemed to apply to persons in classifications higher than laborers and mechanics and those who are the immediate supervisors of such employees) engaged on the work. If the Contractor or any of his subcontractors fail to furnish copies of such payrolls, the Contracting Officer may disapprove all or part of any progress payment estimate for the period covered by such payrolls until they are received by him. The Contractor shall also prepare and furnish such labor reports as may be required by the Department of Labor.

End of Paragraph

## 14. PROTECTION OF MATERIAL AND WORK

The Contractor shall at all times protect and preserve all materials, supplies and equipment of every description (including property which may be Government-furnished or owned) and all work performed. All reasonable requests of the Contracting Officer to enclose or specially protect such property shall be complied with. If, as determined by the Contracting Officer, material, equipment, supplies, and work performed are not adequately protected by the Contractor such property may be protected by the Government and the cost thereof may be charged to the Contractor or deducted from any payments due him.

End of Paragraph

## 15. ENGLISH-SPEAKING REPRESENTATIVE

At all times when any performance of the work at any site is being conducted by any employee of the Contractor or his subcontractors, the Contractor shall have a representative present at each site who has the capability of receiving instructions in the English language, fluently speaking the English language and explaining the work operations to persons performing the work in the language that those performing the work are capable of understanding. The Contracting Officer shall have the right to determine whether the proposed representative has sufficient technical and bilingual capabilities, and the Contractor shall immediately replace any individual not acceptable to the Contracting Officer.

End of Paragraph

## 16. PROHIBITION AGAINST CONTRACTING WITH INDIVIDUALS OR ENTITIES DESIGNATED AS SIGNIFICANT NARCOTICS TRAFFICKERS

Pursuant to Executive Order 12978 entitled "Blocking Assets and Prohibiting Transactions with Significant Narcotic Traffickers" dated October 21, 1995, the offeror certifies that it has not and will not be involved in business transactions with individuals or business entities designated as significant narcotics traffickers under this Executive Order. For a current listing of specially designated nationals and blocked persons, contact the Office of Foreign Assets Control, Department of the Treasury, Washington, DC 22201; telephone 202/622-2420.

End of Paragraph

## 17. CONTRACTOR PAYMENT REQUEST

A copy of CESAM Form 1151 entitled PROMPT PAYMENT CERTIFICATION AND SUPPORTING DATA FOR CONTRACTOR PROGRESS PAYMENT INVOICE is included hereinafter, with instructions, following the Wage Rates. This form will be used in conjunction with the CONTRACT CLAUSE entitled PAYMENTS UNDER FIXEDPRICE CONSTRUCTION CONTRACTS. The contracting Officer will provide copies of the form to the Contractor upon request. The Contractor shall complete the form, sign the certification and submit it with each progress payment invoice.

End of Paragraph

## 18. PARTNERING

In order to most effectively accomplish this contract, the Government proposes to form a cohesive partnership with the Contractor and its subcontractors. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done right the first time, within budget and on schedule. This partnership would be bilateral in make-up and participation will be totally voluntary. Any cost associated with implementing this partnership will be agreed to by both parties and will be shared equally with no change in contract price.

End of Paragraph

## 19. POTABLE WATER

Testing of all potable water storage facilities and dispensing systems with a storage capacity of ten or more gallons, will be conducted by an independent testing laboratory approved by the Contracting officer as follows:

- (1) Prior to the commencement of work.
- (2) Minimum of monthly, after start of work for the duration of the contract.
- (3) After any repairs or modifications are made to the potable water storage or dispensing systems.
- (4) After any intake of potable water into the storage system.

All samples shall meet state and local water quality standards for potable water. A copy of all test results will be forwarded to the Contracting Officer within seven working days for his review.

In the event a tested sample fails to meet state and local water quality standards, all dispensing outlets connected to the failing water storage shall be labeled as non-potable and other means of potable water shall be obtained until water quality can be provided to meet the required standards.

To insure potable water maintains water quality standards all portable potable water dispensing units shall be checked daily for cleanliness. All hoses used in the transfer of potable water shall be conspicuously marked and kept in such a manner as to keep them from being contaminated. These hoses shall be used for potable water transfer only.

End of Paragraph

## 20. PRESERVATION OF HISTORICAL, ARCHEOLOGICAL AND CULTURAL RESOURCES

(a) If known historical, archeological and cultural resources exist within the Contractor's work area, they have been designated on the contract drawings. The Contractor shall install protection for these resources as shown on the drawings and shall be responsible for their preservation during the contract.

(b) If, during construction activities, the Contractor observes items that might have historical or archeological value, such observations shall be reported immediately to the Contracting Officer so that the appropriate authorities may be notified and a determination can be made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.

End of Paragraph

## 21. WORK IN QUARANTINED AREA

The work called for by this contract involves activities in counties quarantined by the Department of Agriculture to prevent the spread of certain plant pests which may be present in the soil. The Contractor agrees that all construction equipment and tools to be moved from such counties shall be thoroughly cleaned of all soil residues at the construction site with water under pressure and that hand tools shall be thoroughly cleaned by brushing or other means to remove all soil. In addition, if this contract involves the identification, shipping, storage, testing, or disposal of soils from such a quarantined area, the Contractor agrees to comply with the provisions of ER 1110-1-5 and attachments, a copy of which will be made available by the Contracting Officer upon request. The Contractor agrees to assure compliance with this obligation by all subcontractors.

End of Paragraph



## 22. KEY PERSONNEL, SUBCONTRACTORS AND OUTSIDE ASSOCIATES OR CONSULTANTS

Any key in-house personnel, subcontractors and outside associates or consultants required by the Contractor in connection with the services covered by the contract will be limited to individuals or firms that were specifically identified and agreed to during negotiations. The Contractor shall obtain the Contracting Officer's written consent before making any substitution for these designated key personnel, subcontractors, associates, or consultants.

End of Paragraph

## 23. ACCOMMODATIONS AND MEALS FOR INSPECTORS

a. The Contractor shall furnish regularly to inspectors on board the dredge or other craft upon which they are employed, a suitable separate room for office purposes. The room shall be fully equipped and maintained to the satisfaction of the Contracting Officer; it shall be properly heated, ventilated, and lighted, and shall have a desk which can be locked, a chair for each inspector, and washing conveniences. The entire cost to the Contractor for furnishing, equipping, and maintaining the foregoing accommodations shall be included in the contract price. If the Contractor fails to meet these requirements, the facilities referred to above will be secured by the Contracting Officer, and the cost thereof will be deducted from payments to the Contractor.

b. If the Contractor maintains on this work an establishment for the subsistence of his own employees, he shall, when required, furnish the inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. The Contractor will be responsible for collecting from all inspectors and other Government agents the following amount per person for each meal: Breakfast  
- \$2.25, Lunch - \$3.25 and Dinner - \$3.50. End of Paragraph

End of Paragraph

## 24. SEAGOING BARGE ACT

The Seagoing Barge Act (46 U.S. C. 395 et seq.) applies to this project. In the event the low bidder contemplates using plant that requires U.S. Coast Guard certification to comply with this Act, the low bidder shall within 15 calendar days after bid opening submit a copy of said certificate to the Contracting Officer. Failure to produce the certificate within the required time shall subject the bidder to a determination of nonresponsibility.

End of Paragraph

## 25. DELIVERY, PROSECUTION AND TERMINATION

- (a) The dredge and attendant plant shall be delivered by and at the expense of the Contractor to the Mobile District's navigation projects located in Mobile County, Alabama.
- (b) The Contractor shall prosecute the work assigned him with faithfulness and energy, and at all times endeavor to meet the schedule of dredging operations as determined by the Contracting Officer.
- (c) Upon termination of the lease, the plant will be released to the Contractor.

End of Paragraph

## 26. SUNDAYS, HOLIDAYS AND NIGHTS

Due to the nature of the work, a twenty-four (24) hour operation will be performed on a seven (7) day week schedule. Work shall be performed on days declared by Congress as holidays for per diem employees that fall within the work described above. Deviation from the work week contracted for will be subject to the approval of the Contracting Officer. -

Operation Day. The dredge, together with the necessary attendant plant and with adequate crew, shall be operated 24 hours per day on an optional shift basis.

End of Paragraph

## 27. RETAINAGE--SMALL BUSINESS SUBCONTRACTING REPORTING

Reference is made to contract clause(s) 252.219-7003, Small Business Subcontracting Plan (DoD Contracts) and 52.219-16, Liquidated Damages--Small Business Subcontracting Plan. In order to ensure compliance with these clauses, retainage will be withheld from progress payments due the contractor in an amount sufficient to protect the Government's ability to assess Liquidated Damages for failure to submit timely SF 294 and SF 295 reports.

The formula for retainage is as follows:

"Total dollar amount proposed for subcontracting to small business multiplied by percentage of actual progress on the contract, up to a maximum of 10% of the given progress payment, shall be withheld from the next progress payment due after a contractor fails to submit a required report. If one or more reports have been submitted before such failure, formula for determining the amount of retainage will be adjusted by deducting any amounts reported as subcontracted to small business from the total dollar amount proposed to be subcontracted and the difference multiplied by the percent of actual progress, up to a maximum of 10% of the given progress payment."

End of Paragraph

## 28. JOINT VENTURE BID REQUIREMENTS

When bidding as a Joint Venture, all members of the Joint Venture must sign all contract documents and must complete the Representations and Certifications unless a written agreement by the Joint Venture is furnished with the bid designating one firm with the authority to bind the other member(s) of the Joint

Venture. In addition, a copy of the Joint Venture Agreement fully executed by both parties must be submitted with the bid. Failure to comply with the foregoing requirements may render the bid non-responsive. For 8(A) Joint Ventures, the Joint Venture shall also submit evidence that it has notified and discussed the proposed joint venture with its SBA Servicing Agency. Additionally, for 8(A) Set-aside procurements, all prospective Joint Ventures must comply with Title 13 Code of Federal Regulations (CFR) Part 124.513. Award to an 8(A) Joint Venture shall be contingent upon SBA approval of the 8(A) Joint Venture Agreement. For HubZone Set-Aside procurements, and awards to HUBZone small business concerns, a HUBZone Joint Venture must comply with 13 CFR 126.616.

End of Paragraph

## 29. SMALL BUSINESS SUBCONTRACTING PLAN

(a) This clause does not apply to small business concerns.

(b) Offerors who are large businesses, upon request by the Contracting Officer, shall submit a subcontracting plan in accordance with the contract clause in Section 00 70 00, FAR 52.219-9, Small Business Subcontracting Plan.

(c) Approval of subcontracting plan by the Contracting Officer will be contingent upon providing a plan that includes realistic goals and makes a good faith effort to acquire services and supplies from small businesses

End of Paragraph

## 30. PROCEDURES FOR SUBMISSION OF BIDS AND VIRTUAL BID OPENING

In accordance with FAR 14.202-8 and FAR Part 4.5, bidders will be required to submit their bids in response to this IFB solicitation by 2 pm CST on **03 September 2020** via electronic means, to include bid bonds. Physical copies of bid bonds will not be required to be submitted unless otherwise requested by the Contracting Officer at a later date. Bidders that are interested in submitting bids must use the DoD Secure Access File Exchange (DoD SAFE), which provides a time stamped notification to the Government when a file is uploaded. Interested bidders must contact Ms. Chanda Strenth at [Chanda.d.strenth@usace.army.mil](mailto:Chanda.d.strenth@usace.army.mil) to obtain a unique "request code" needed for each offeror to upload their bids. Once bidders receive this code, they will be allowed to upload their bids from **04 August 2020** at 0900 am up to **03 September 2020** by 2 pm CST. A timely bid is the one time-stamped by DoD SAFE before the deadline established above.

The public bid opening will be held virtually on **03 September 2020** at 2:30 pm CST. Interested parties are welcome to participate by joining the teleconference call via WebEx. The details of the teleconference are provided below:

Phone Number: 888-808-6929

Access Code: 7458745

Security Code: 1111

End of Paragraph

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PROMPT PAYMENT CERTIFICATION AND SUPPORTING DATA FOR CONTRACTOR PROGRESS PAYMENT INVOICE

Contractor Name and Address	Contract No.	Est. No.	Date	Discount Terms
Description and Location of Work	Designated Contractor Official and Address for Payment		Defective Invoice Notification (Name, Title, Telephone)	
Subcontractor Name	Total Amount Subcontracted	Subcontractor Amount Included This Payment Est	Previous Subcontractor Payments	Subcontractor Earnings Deducted by Contractor (Total to Date)
				<div style="text-align: right;">             _____              \$           </div>

I hereby certify, to the best of my knowledge and belief, that:

- (1) The amounts requested are only for performance in accordance with the specifications, terms and conditions of the contract;
- (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of Chapter 39 of Title 31, United States Code; and
- (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

\_\_\_\_\_  
 (NAME)  
 (TITLE)

\_\_\_\_\_  
 (DATE)

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SECTION 01 32 01.00 10

PROJECT SCHEDULE: BAR CHART

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittal

PROJECT SCHEDULE AND CURVE; G,OP

PART 2 EXECUTION

2.1 GENERAL REQUIREMENTS

Prepare for approval a Practicable Project Schedule and Curve, as specified herein. Show in the schedule the sequence in which the Contractor proposes to perform the work and dates on which the Contractor contemplates starting and completing all schedule activities. Provide a schedule that is a forward planning as well as a project monitoring tool.

2.2 BASIS FOR PAYMENT

The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

2.3 PROJECT SCHEDULE AND CURVE

The Project Schedule shall be in the form of a chart consisting of a series of bars graphically indicating the sequence proposed to accomplish each work feature or operation. Each bar will represent a work feature, system or series of activities within the construction project. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed and indicating calendar days to completion. Interdependence of status of activities shall be shown. Horizontal time scale shall allow identification of the first work day each week, which shall be identified. Space between bars shall be allowed for future revisions and notations. The Initial Project Schedule shall be submitted for approval within fifteen (15) calendar days after Notice to Proceed. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail. The initial schedule shall be reviewed by the Government to determine compliance with contract requirements and realistic completion of the project in the period indicated. A revised project schedule shall be submitted based on Government review, if required.

With the Project Schedule, the Contractor shall also submit for approval a progress curve which reflects the intended schedule for completing the work. The progress curve (S-Curve) will be plotted to reflect Cumulative Progress (Percent) based on placement along the y-axis and Time along the x-axis.

#### 2.3.1 SCHEDULE AND PROGRESS CURVE UPDATE

Approved Schedule and Progress Curve will be updated monthly during the entire duration of construction. Not later than four days after the Monthly Progress Meeting the Contractor shall submit the updated Project Schedule and Progress Curve. The updated versions shall include all approved contract revisions, progress of each activity to date of submission, and adjustments. Contractor shall also provide a very brief narrative report as required to indicate any problem areas, anticipated delays, impact on schedule, and corrective action.

#### 2.3.2 PERIODIC PROGRESS MEETINGS

Progress meetings to discuss payment shall include on-site meetings or other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor will describe, on an activity by activity basis, all proposed revision and adjustments to the project schedule required to reflect the current status of the project. The Contracting Officer will review activity progress, proposed revisions, and adjustments as appropriate.

-- End of Section --



SECTION 01 33 00

SUBMITTAL PROCEDURES

05/11

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 are to be the same as those used in the contract drawings.

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

Contractor's Quality Control (CQC) System Manager to check and approve all items prior to submittal and stamp, sign, and date indicating action taken. Proposed deviations from the contract requirements are to be clearly identified. Include within submittals 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 are to be scheduled and made prior to the acquisition of the material or equipment covered thereby. Pick up and dispose of samples not incorporated into the work in accordance with manufacturer's material Safety Data Sheets (SDS) and in compliance with existing laws and regulations.

1.2 DEFINITIONS

1.2.1 Submittal Descriptions (SD)

Submittals requirements are specified in the technical sections. Submittals are identified by Submittal Description (SD) numbers and titles as follows:

SD-01 Preconstruction Submittals

Submittals which are required prior to or the start of the next major phase of the construction on a multi-phase contract, includes schedules, tabular list of data, or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports.

Daily logs and checklists.

Final acceptance test and operational test procedure.

#### SD-07 Certificates

Statements printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a manufacturer, supplier, installer or Subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

Text of posted operating instructions.

#### SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

Special requirements necessary to properly close out a construction contract. For example, Record Drawings and as-built drawings. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract.

#### 1.2.2 Approving Authority

Office or designated person authorized to approve submittal.

#### 1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with this section.

#### SD-01 Preconstruction Submittals

Submittal Register; G, OP

Fleeting Area Plan; G, OP

Pipeline Route Plan; G, OP

#### 1.4 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

##### 1.4.1 Government Approved (G)

Government 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," they are considered to be "shop drawings."

##### 1.4.2 Information Only (FIO)

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 PREPARATION

##### 1.5.1 Transmittal Form

Use the attached sample transmittal form (ENG Form 4025) for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms are also included in the QCS software that the Contractor is required to use for this contract. Properly complete this form by filling out all the heading blank spaces and identifying each item submitted. Exercise special care to ensure proper listing of the specification paragraph and sheet number of the contract drawings pertinent to the data submitted for each item.

#### 1.6 QUANTITY OF SUBMITTALS

##### 1.6.1 Number of Copies of SD-02 Shop Drawings

Submit four copies of submittals of shop drawings requiring review and approval by the Government.

##### 1.6.2 Number of Copies of SD-01 Preconstruction Submittals and SD-11 Closeout Submittals

Unless otherwise specified, submit three sets of administrative submittals.

#### 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 SUBMITTAL REGISTER

Prepare and maintain submittal register, as the work progresses. Do not change data which is output in columns (c), (d), (e), and (f) as delivered by Government; retain data which is output in columns (a), (g), (h), and (i) as approved. A submittal register showing items of equipment and materials for which submittals are required by the specifications is provided as an attachment. This list may not be all inclusive and additional submittals may be required. Maintain a submittal register for the project in accordance with Section 01 45 00.15 10 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM) ).

Column (c): Lists specification section in which submittal is required.

Column (d): Lists each submittal description (SD No. and type, e.g. SD-02 Shop Drawings) required in each specification section.

Column (e): Lists one principal paragraph in specification section where a material or product is specified. This listing is only to facilitate locating submitted requirements. Do not consider entries in column (e) as limiting project requirements.

Thereafter, the Contractor is to track all submittals by maintaining a complete list, including completion of all data columns, including dates on which submittals are received and returned by the Government.

##### 1.8.1 Use of Submittal Register

Submit submittal register. Submit with QC plan and project schedule. Verify that all submittals required for project are listed and add missing submittals. Coordinate and complete the following fields on the register submitted with the QC plan and the project schedule:

Column (a) Activity Number: Activity number from the project schedule.

Column (g) Contractor Submit Date: Scheduled date for approving authority to receive submittals.

Column (h) Contractor Approval Date: Date Contractor needs approval of submittal.

Column (i) Contractor Material: Date that Contractor needs material delivered to Contractor control.

##### 1.8.2 Contractor Use of Submittal Register

Update the following fields with each submittal throughout contract.

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (j) Action Code (k): Date of action used to record Contractor's review when forwarding submittals to QC.

Column (l) List date of submittal transmission.

Column (q) List date approval received.

#### 1.8.3 Approving Authority Use of Submittal Register

Update the following fields.

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (l) List date of submittal receipt.

Column (m) through (p) List Date related to review actions.

Column (q) List date returned to Contractor.

#### 1.8.4 Copies Delivered to the Government

Deliver one copy of submittal register updated by Contractor to Government with each invoice request.

#### 1.9 SCHEDULING

Schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Include certifications to be submitted with the pertinent drawings at the same time. No delay damages or time extensions will be allowed for time lost in late submittals.

- a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of work so that work will not be delayed by submittal processing. Allow for potential resubmittal of requirements.
- b. Submittals called for by the contract documents will be listed on the register. If a submittal is called for but does not pertain to the contract work, the Contractor is to include the submittal in the register and annotate it "N/A" with a brief explanation. Approval by the Contracting Officer does not relieve the Contractor of supplying submittals required by the contract documents but which have been omitted from the register or marked "N/A."
- c. Re-submit register and annotate monthly by the Contractor with actual submission and approval dates. When all items on the register have been fully approved, no further re-submittal is required.
- d. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

#### 1.10 GOVERNMENT APPROVING AUTHORITY

When approving authority is Contracting Officer, the Government will:

- a. Note date on which submittal was received.
- b. Review submittals for approval within scheduling period specified and

only for conformance with project design concepts and compliance with contract documents.

- c. Identify returned submittals with one of the actions defined in paragraph entitled, "Review Notations," of this section and with markings appropriate for action indicated.

Upon completion of review of submittals requiring Government approval, stamp and date approved submittals. 2 copies of the approved submittal will be retained by the Contracting Officer and 2 copies of the submittal will be returned to the Contractor.

#### 1.10.1 Review Notations

Contracting Officer review will be completed within 30 calendar days after date of submission. Submittals will be returned to the Contractor with the following notations:

- a. Submittals marked "approved" or "accepted" authorize the Contractor to proceed with the work covered.
- b. Submittals marked "approved as noted" "or approved except as noted, resubmittal not required," authorize the Contractor to proceed with the work covered provided he takes no exception to the corrections.
- c. Submittals marked "not approved" or "disapproved," or "revise and resubmit," indicate noncompliance with the contract requirements or design concept, or that submittal is incomplete. Resubmit with appropriate changes. No work shall proceed for this item until resubmittal is approved.
- d. Submittals marked "not reviewed" will indicate submittal has been previously reviewed and approved, is not required, does not have evidence of being reviewed and approved by Contractor, or is not complete. A submittal marked "not reviewed" will be returned with an explanation of the reason it is not reviewed. Resubmit submittals returned for lack of review by Contractor or for being incomplete, with appropriate action, coordination, or change.

#### 1.11 DISAPPROVED OR REJECTED SUBMITTALS

Contractor shall make corrections required by the Contracting Officer. If the Contractor considers any correction or notation on the returned submittals to constitute a change to the contract drawings or specifications; notice as required under the clause entitled, "Changes," is to be given to the Contracting Officer. Contractor is responsible for the dimensions and design of connection details and construction of work. Failure to point out deviations may result in the Government requiring rejection and removal of such work at the Contractor's expense.

If changes are necessary to submittals, the Contractor shall make such revisions and submission of the submittals in accordance with the procedures above. No item of work requiring a submittal change is to be accomplished until the changed submittals are approved.

#### 1.12 APPROVED/ACCEPTED SUBMITTALS

The Contracting Officer's approval or acceptance of submittals is not to be construed as a complete check, and indicates only that the general

method of construction, materials, detailing and other information are satisfactory.

Approval or acceptance will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions.

After submittals have been approved or accepted 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.

#### 1.13 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:

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

-- End of Section --



<b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b> <i>(Read instruction on the reverse side prior to initiating this form)</i>	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
--	----------------------------

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED <i>(Type size, model number/etc.)</i>	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. <i>(See instruction no. 8)</i>	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE	VARIATION <i>(See instruction No. 6)</i>	FOR CE USE CODE
				SPEC. PARA. NO.	DRAWING SHEET NO.			
<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>e.</i>	<i>f.</i>	<i>g.</i>	<i>h.</i>	<i>i.</i>

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated.  <div style="text-align: right; border-top: 1px solid black; width: 200px; margin: 0 auto;">           NAME AND SIGNATURE OF CONTRACTOR         </div>
---------	---

**SECTION II - APPROVAL ACTION**

ENCLOSURES RETURNED (List by Item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE
--	--	------

## INSTRUCTIONS

1. Section 1 will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmits mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288 for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

### THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- |   |  |    |  |
|---|--|----|--|
| A | -- Approved as submitted.  | E  | -- Disapproved (See attached).   |
| B | -- Approved, except as noted on drawings.  | F  | -- Receipt acknowledge.  |
| C | -- Approved, except as noted on drawings.<br>Refer to attached sheet resubmission required | FX | -- Receipt acknowledged, does not comply<br>as noted with contract requirements. |
| D | -- Will be returned by separate correspondence.  | G  | -- Other ( <i>Specify</i> )  |
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

**SUBMITTAL REGISTER**

CONTRACT NO.

TITLE AND LOCATION

MOBILE HARBOR DEEPENING: PHASE 1

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS		
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER			ACTION CODE	DATE OF ACTION
		01 00 00	SD-11 Closeout Submittals															
			Contractor Prepared As-Built Drawings;	1.5														
			G, SAM-OP-GW															
		01 32 01.00 10	SD-01 Preconstruction Submittals															
			PROJECT SCHEDULE AND CURVE;	2.3	G OP													
		01 33 00	SD-01 Preconstruction Submittals															
			Submittal Register	1.8	G OP													
			Fleeting Area Plan		G OP													
			Pipeline Route Plan		G OP													
		01 35 26	SD-01 Preconstruction Submittals															
			Accident Prevention Plan (APP)	1.6	G SO													
			SD-06 Test Reports															
			Monthly Exposure Reports	1.4														
			Notifications and Reports	1.11														
			Accident Reports	1.11.2	G SO													
			LHE Inspection Reports	1.11.3														
			SD-07 Certificates															
			Crane Operators/Riggers	1.5.1.6														
			Standard Lift Plan	1.6.2.2	G SO													
			Critical Lift Plan	1.6.2.3	G SO													
			Naval Architecture Analysis	1.6.2.3	G SO													
			Activity Hazard Analysis (AHA)	1.7														
			Confined Space Entry Permit	1.8.1														
			Hot Work Permit	1.8.1														

**SUBMITTAL REGISTER**

CONTRACT NO. \_\_\_\_\_

TITLE AND LOCATION  
MOBILE HARBOR DEEPENING: PHASE 1

CONTRACTOR \_\_\_\_\_

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE			DATE OF ACTION
		01 35 26	Certificate of Compliance License Certificates	1.11.4													
		01 45 00.00 10	SD-01 Preconstruction Submittals														
			Contractor Quality Control (CQC) Plan	3.2	G OP												
			Contractor Quality Control (CQC) Plan	3.2	G OP												
			SD-06 Test Reports														
			Verification Statement	3.9.2													
		35 20 23.00 36	SD-01 Preconstruction Submittals														
			Instrumentation data		G OP												
			Surveys		G OP												
			Disposal Area Surveys		G OP												
			Manufacturer's guarantee		G OP												
			Quality Control		G OP												
			Order of Work Plan		G OP												
			Survey Plan		G OP												
			Accident Prevention Program Plan		G OP												
			Dredge Plant Instrumentation Plan		G OP												
			Dredge Plant Instrumentation Format		G OP												
		35 20 23.13	SD-07 Certificates														



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SECTION 01 35 26

GOVERNMENTAL SAFETY REQUIREMENTS  
11/15

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE/SAFE)

ASSE/SAFE A10.34	(2001; R 2012) Protection of the Public on or Adjacent to Construction Sites
ASSE/SAFE A10.44	(2014) Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations
ASSE/SAFE Z244.1	(2003; R 2014) Control of Hazardous Energy Lockout/Tagout and Alternative Methods
ASSE/SAFE Z359.0	(2012) Definitions and Nomenclature Used for Fall Protection and Fall Arrest
ASSE/SAFE Z359.1	(2007) Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components
ASSE/SAFE Z359.11	(2014) Safety Requirements for Full Body Harnesses
ASSE/SAFE Z359.12	(2009) Connecting Components for Personal Fall Arrest Systems
ASSE/SAFE Z359.13	(2013) Personal Energy Absorbers and Energy Absorbing Lanyards
ASSE/SAFE Z359.14	(2014) Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems
ASSE/SAFE Z359.15	(2014) Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems
ASSE/SAFE Z359.2	(2007) Minimum Requirements for a Comprehensive Managed Fall Protection Program
ASSE/SAFE Z359.3	(2007) Safety Requirements for Positioning and Travel Restraint Systems
ASSE/SAFE Z359.4	(2013) Safety Requirements for Assisted-Rescue and Self-Rescue Systems,

Subsystems and Components

ASSE/SAFE Z359.6 (2009) Specifications and Design Requirements for Active Fall Protection Systems

ASSE/SAFE Z359.7 (2011) Qualification and Verification Testing of Fall Protection Products

ASME INTERNATIONAL (ASME)

ASME B30.20 (2013; INT Oct 2010 - May 2012) Below-the-Hook Lifting Devices

ASME B30.22 (2010) Articulating Boom Cranes

ASME B30.26 (2015; INT Jun 2010 - Jun 2014) Rigging Hardware

ASME B30.3 (2016) Tower Cranes

ASME B30.5 (2014) Mobile and Locomotive Cranes

ASME B30.8 (2015) Floating Cranes and Floating Derricks

ASME B30.9 (2014; INT Feb 2011 - Nov 2013) Slings

ASTM INTERNATIONAL (ASTM)

ASTM F855 (2015) Standard Specifications for Temporary Protective Grounds to Be Used on De-energized Electric Power Lines and Equipment

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 1048 (2003) Guide for Protective Grounding of Power Lines

IEEE C2 (2012; Errata 1 2012; INT 1-4 2012; Errata 2 2013; INT 5-7 2013; INT 8-10 2014; INT 11 2015; INT 12 2016) National Electrical Safety Code

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (2013) Standard for Portable Fire Extinguishers

NFPA 241 (2013; Errata 2015) Standard for Safeguarding Construction, Alteration, and Demolition Operations

NFPA 51B (2014) Standard for Fire Prevention During Welding, Cutting, and Other Hot Work

NFPA 70 (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata



3-4 2014; AMD 4-6 2014) National  
Electrical Code

NFPA 70E (2015; ERTA 1 2015) Standard for  
Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements  
Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 Occupational Safety and Health Standards  
29 CFR 1910.146 Permit-required Confined Spaces  
29 CFR 1910.147 Control of Hazardous Energy (Lock Out/Tag  
Out)  
29 CFR 1910.333 Selection and Use of Work Practices  
29 CFR 1915 Confined and Enclosed Spaces and Other  
Dangerous Atmospheres in Shipyard  
Employment  
29 CFR 1915.89 Control of Hazardous Energy  
(Lockout/Tags-Plus)  
29 CFR 1926 Safety and Health Regulations for  
Construction  
29 CFR 1926.1400 Cranes and Derricks in Construction  
29 CFR 1926.16 Rules of Construction  
29 CFR 1926.450 Scaffolds  
29 CFR 1926.500 Fall Protection  
CPL 2.100 (1995) Application of the Permit-Required  
Confined Spaces (PRCS) Standards, 29 CFR  
1910.146

1.2 DEFINITIONS

1.2.1 Competent Person (CP)

The CP is a person designated in writing, who, through training, knowledge and experience, is capable of identifying, evaluating, and addressing existing and predictable hazards in the working environment or working conditions that are dangerous to personnel, and who has authorization to take prompt corrective measures with regards to such hazards.

1.2.2 Competent Person, Confined Space

The CP, Confined Space, is a person meeting the competent person requirements as defined EM 385-1-1 Appendix Q, with thorough knowledge of OSHA's Confined Space Standard, 29 CFR 1910.146, and designated in writing

to be responsible for the immediate supervision, implementation and monitoring of the confined space program, who through training, knowledge and experience in confined space entry is capable of identifying, evaluating and addressing existing and potential confined space hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

#### 1.2.3 Competent Person, Cranes and Rigging

The CP, Cranes and Rigging, as defined in EM 385-1-1 Appendix Q, is a person meeting the competent person, who has been designated in writing to be responsible for the immediate supervision, implementation and monitoring of the Crane and Rigging Program, who through training, knowledge and experience in crane and rigging is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

#### 1.2.4 Competent Person, Excavation/Trenching

A CP, Excavation/Trenching, is a person meeting the competent person requirements as defined in EM 385-1-1 Appendix Q and 29 CFR 1926, who has been designated in writing to be responsible for the immediate supervision, implementation and monitoring of the excavation/trenching program, who through training, knowledge and experience in excavation/trenching is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

#### 1.2.5 Competent Person, Fall Protection

The CP, Fall Protection, is a person meeting the competent person requirements as defined in EM 385-1-1 Appendix Q and in accordance with ASSE/SAFE Z359.0, who has been designated in writing by the employer to be responsible for immediate supervising, implementing and monitoring of the fall protection program, who through training, knowledge and experience in fall protection and rescue systems and equipment, is capable of identifying, evaluating and addressing existing and potential fall hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

#### 1.2.6 Competent Person, Scaffolding

The CP, Scaffolding is a person meeting the competent person requirements in EM 385-1-1 Appendix Q, and designated in writing by the employer to be responsible for immediate supervising, implementing and monitoring of the scaffolding program. The CP for Scaffolding has enough training, knowledge and experience in scaffolding to correctly identify, evaluate and address existing and potential hazards and also has the authority to take prompt corrective measures with regard to these hazards. CP qualifications must be documented and include experience on the specific scaffolding systems/types being used, assessment of the base material that the scaffold will be erected upon, load calculations for materials and personnel, and erection and dismantling. The CP for scaffolding must have a documented, minimum of 8-hours of scaffold training to include training on the specific type of scaffold being used (e.g., mast-climbing, adjustable, tubular frame), in accordance with EM 385-1-1 Section 22.B.02.

#### 1.2.7 Competent Person (CP) Trainer

A competent person trainer as defined in EM 385-1-1 Appendix Q, who is qualified in the material presented, and who possesses a working knowledge of applicable technical regulations, standards, equipment and systems related to the subject matter on which they are training Competent Persons. A competent person trainer must be familiar with the typical hazards and the equipment used in the industry they are instructing. The training provided by the competent person trainer must be appropriate to that specific industry. The competent person trainer must evaluate the knowledge and skills of the competent persons as part of the training process.

#### 1.2.8 High Risk Activities

High Risk Activities are activities that involve work at heights, crane and rigging, excavations and trenching, scaffolding, electrical work, and confined space entry.

#### 1.2.9 High Visibility Accident

A High Visibility Accident is any mishap which may generate publicity or high visibility.

#### 1.2.10 Load Handling Equipment (LHE)

LHE is a term used to describe cranes, hoists and all other hoisting equipment (hoisting equipment means equipment, including crane, derricks, hoists and power operated equipment used with rigging to raise, lower or horizontally move a load).

#### 1.2.11 Medical Treatment

Medical Treatment is treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

#### 1.2.12 Near Miss

A Near Miss is a mishap resulting in no personal injury and zero property damage, but given a shift in time or position, damage or injury may have occurred (e.g., a worker falls off a scaffold and is not injured; a crane swings around to move the load and narrowly misses a parked vehicle).

#### 1.2.13 Operating Envelope

The Operating Envelope is the area surrounding any crane or load handling equipment. Inside this "envelope" is the crane, the operator, riggers and crane walkers, other personnel involved in the operation, rigging gear between the hook, the load, the crane's supporting structure (i.e. ground or rail), the load's rigging path, the lift and rigging procedure.

#### 1.2.14 Qualified Person (QP)

The QP is a person designated in writing, who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems related to the subject matter, the

work, or the project.

1.2.15 Qualified Person, Fall Protection (QP for FP)

A QP for FP is a person meeting the requirements of EM 385-1-1 Appendix Q, and ASSE/SAFE Z359.0, with a recognized degree or professional certificate and with extensive knowledge, training and experience in the fall protection and rescue field who is capable of designing, analyzing, and evaluating and specifying fall protection and rescue systems.

1.2.16 Recordable Injuries or Illnesses

Recordable Injuries or Illnesses are any work-related injury or illness that results in:

- a. Death, regardless of the time between the injury and death, or the length of the illness;
- b. Days away from work (any time lost after day of injury/illness onset);
- c. Restricted work;
- d. Transfer to another job;
- e. Medical treatment beyond first aid;
- f. Loss of consciousness; or
- g. A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (a) through (f) above.

1.2.17 USACE Property and Equipment

Interpret "USACE" property and equipment specified in USACE EM 385-1-1 as Government property and equipment.

1.2.18 Load Handling Equipment (LHE) Accident or Load Handling Equipment Mishap

A LHE accident occurs when any one or more of the eight elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; or collision, including unplanned contact between the load, crane, or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents, even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, or roll over). Document any mishap that meets the criteria described in the Contractor Significant Incident Report (CSIR) using the Crane High Hazard working group mishap reporting form.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation;

submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, SO

SD-06 Test Reports

Monthly Exposure Reports

Notifications and Reports

Accident Reports; G, SO

LHE Inspection Reports

SD-07 Certificates

Crane Operators/Riggers

Standard Lift Plan; G, SO

Critical Lift Plan ; G, SO

Naval Architecture Analysis; G, SO

Activity Hazard Analysis (AHA)

Confined Space Entry Permit

Hot Work Permit

Certificate of Compliance

License Certificates

1.4 MONTHLY EXPOSURE REPORTS

Provide a Monthly Exposure Report and attach to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both Prime and subcontractor. Failure to submit the report may result in retention of up to 10 percent of the voucher.

1.5 SITE QUALIFICATIONS, DUTIES, AND MEETINGS

1.5.1 Personnel Qualifications

1.5.1.1 Site Safety and Health Officer (SSHO)

Provide an SSHO that meets the requirements of EM 385-1-1 Section 1. The SSHO must ensure that the requirements of 29 CFR 1926.16 are met for the project. Provide a Safety oversight team that includes a minimum of one (1) person at each project site to function as the Site Safety and Health Officer (SSHO). The SSHO or an equally-qualified Alternate SSHO must be at the work site at all times to implement and administer the Contractor's

safety program and government-accepted Accident Prevention Plan. The SSHO and Alternate SSHO must have the required training, experience, and qualifications in accordance with EM 385-1-1 Section 01.A.17, and all associated sub-paragraphs.

If the SSHO is off-site for a period longer than 24 hours, an equally-qualified alternate SSHO must be provided and must fulfill the same roles and responsibilities as the primary SSHO. When the SSHO is temporarily (up to 24 hours) off-site, a Designated Representative (DR), as identified in the AHA may be used in lieu of an Alternate SSHO, and must be on the project site at all times when work is being performed. Note that the DR is a collateral duty safety position, with safety duties in addition to their full time occupation.

#### 1.5.1.2 Contractor Quality Control (QC) Manager:

The Contractor Quality Control Manager cannot be the SSHO on this project, even though the QC has safety inspection responsibilities as part of the QC duties.

#### 1.5.1.3 Competent Person Qualifications

Provide Competent Persons in accordance with EM 385-1-1, Appendix Q and herein. Competent Persons for high risk activities include confined space, cranes and rigging, excavation/trenching, fall protection, and electrical work. The CP for these activities must be designated in writing, and meet the requirements for the specific activity (i.e. competent person, fall protection).

The Competent Person identified in the Contractor's Safety and Health Program and accepted Accident Prevention Plan, must be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed. Provide the credentials of the Competent Persons(s) to the the Contracting Officer for information in consultation with the Safety Office.

##### 1.5.1.3.1 Competent Person for Confined Space Entry

Provide a Confined Space (CP) Competent Person who meets the requirements of EM 385-1-1, Appendix Q, and herein. The CP for Confined Space Entry must supervise the entry into each confined space.

##### 1.5.1.3.2 Competent Person for Fall Protection

Provide a Competent Person for Fall Protection who meets the requirements of EM 385-1-1, Section 21.C.04 and herein.

#### 1.5.1.4 Qualified Trainer Requirements

Individuals qualified to instruct the 40 hour contract safety awareness course, or portions thereof, must meet the definition of a Competent Person Trainer, and, at a minimum, possess a working knowledge of the following subject areas: EM 385-1-1, Electrical Standards, Lockout/Tagout, Fall Protection, Confined Space Entry for Construction; Excavation, Trenching and Soil Mechanics, and Scaffolds in accordance with 29 CFR 1926.450, Subpart L.

Instructors are required to:

- a. Prepare class presentations that cover construction-related safety requirements.
- b. Ensure that all attendees attend all sessions by using a class roster signed daily by each attendee. Maintain copies of the roster for at least five (5) years. This is a certification class and must be attended 100 percent. In cases of emergency where an attendee cannot make it to a session, the attendee can make it up in another class session for the same subject.
- c. Update training course materials whenever an update of the EM 385-1-1 becomes available.
- d. Provide a written exam of at least 50 questions. Students are required to answer 80 percent correctly to pass.
- e. Request, review and incorporate student feedback into a continuous course improvement program.

#### 1.5.1.5 USACE Dredging Contract Requirements

##### 1.5.1.5.1 SSHO Staffing for USACE Dredging Contracts

- a. Dredging contracts may include several project sites; this contract will require a minimum of 1 full time SSHO(s) assigned per project site. SSHO may be collateral duty in specific conditions listed below.
- b. An 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. Individual dredging project sites with work force less than 8 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.

##### 1.5.1.5.2 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) officials.

- b. The SSHO must 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.

#### 1.5.1.5.3 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 superintendents. 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.

#### 1.5.1.5.4 Safety Personnel Training Requirements for Dredging

- a. The SSHO, Alternate SSHO, and Designated Representatives for dredging contracts shall take either the OSHA 30-hour Construction Safety Course or an equivalent 30 hours of formal safety and health training covering the subjects of the OSHA 30-hour Course (see EM 385-1-1 Appendix A, paragraph 4.b) applicable to dredging work and given by qualified instructors.
- b. The SSHOs shall also have taken 24 hours of formal classroom or online safety and health related coursework in the past four (4) years. Hours spent as an instructor in such courses will be considered the same as attending them, but each course only gets credit once (i.e., Instructing a 1-hour asbestos awareness course 5 times in the past 4 years provides one hour credit for training).
- c. The SSHO, Alternate SSHO, and Designated Representatives shall have a minimum of three years' continuous experience within the past 5 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. This is in lieu of the construction experience required by paragraph 01.A.17.b, EM 385-1-1.

#### 1.5.1.6 Crane Operators/Riggers

Provide Operators meeting the requirements in EM 385-1-1, Section 15.B for Riggers and Section 16.B for Crane Operators. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacities of 50,000 pounds or greater, designate crane operators qualified by a source that qualifies crane operators (i.e., union, a government agency, or an organization that tests and qualifies crane operators). Provide proof of current qualification.

#### 1.5.2 Personnel Duties

##### 1.5.2.1 Duties of the Site Safety and Health Officer (SSHO)

The SSHO must:

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the Contractors' daily quality control report.
- b. Conduct mishap investigations and complete required accident reports. Report mishaps and near misses.
- c. Use and maintain OSHA's Form 300 to log work-related injuries and illnesses occurring on the project site for Prime Contractors and subcontractors, and make available to the Contracting Officer upon request. Post and maintain the Form 300A on the site Safety Bulletin Board.
- d. Maintain applicable safety reference material on the job site.
- e. Attend the pre-construction conference, pre-work meetings including preparatory meetings, and periodic in-progress meetings.
- f. Review the APP and AHAs for compliance with EM 385-1-1, and approve, sign, implement and enforce them.
- g. Establish a Safety and Occupational Health (SOH) Deficiency Tracking System that lists and monitors outstanding deficiencies until resolution.
- h. Ensure subcontractor compliance with safety and health requirements.
- i. Maintain a list of hazardous chemicals on site and their material Safety Data Sheets (SDS).
- j. Maintain a weekly list of high hazard activities involving energy, equipment, excavation, entry into confined space, and elevation, and be prepared to discuss details during QC Meetings.
- k. Provide and keep a record of site safety orientation and indoctrination for Contractor employees, subcontractor employees, and site visitors.

Superintendent, QC Manager, and SSHO are subject to dismissal if the above duties are not being effectively carried out. If Superintendent, QC Manager, or SSHO are dismissed, project work will be stopped and will not be allowed to resume until a suitable replacement is approved and the above duties are again being effectively carried out.

### 1.5.3 Meetings

#### 1.5.3.1 Preconstruction Conference

- a. Contractor representatives who have a responsibility or significant role in accident prevention on the project must attend the preconstruction conference. This includes the project superintendent, Site Safety and Occupational Health officer, quality control manager, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).
- b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, and Government review of AHAs to preclude project delays.
- c. Deficiencies in the submitted APP, identified during the Contracting Officer's review, must be corrected, and the APP re-submitted for review prior to the start of construction. Work is not permitted to begin until an APP is established that is acceptable to the Contracting Officer.

#### 1.5.3.2 Safety Meetings

Conduct safety meetings to review past activities, plan for new or changed operations, review pertinent aspects of appropriate AHA (by trade), establish safe working procedures for anticipated hazards, and provide pertinent Safety and Occupational Health (SOH) training and motivation. Conduct meetings at least once a month for all supervisors on the project location. The SSHO, supervisors, or foremen must conduct meetings at least once a week for the trade workers. Document meeting minutes to include the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting. Maintain documentation on-site and furnish copies to the Contracting Officer on request. Notify the Contracting Officer of all scheduled meetings 7 calendar days in advance.

### 1.6 ACCIDENT PREVENTION PLAN (APP)

A qualified person must prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1, Appendix A, and as supplemented herein. Cover all paragraph and subparagraph elements in EM 385-1-1, Appendix A. The APP must be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP must interface with the Contractor's overall safety and health program referenced in the APP in the applicable APP element, and made site-specific. Describe the methods to evaluate past safety performance of potential subcontractors in the selection process. Also, describe innovative methods used to ensure and

monitor safe work practices of subcontractors. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP must be signed by an officer of the firm (Prime Contractor senior person), the individual preparing the APP, the on-site superintendent, the designated SSHO, the Contractor Quality Control Manager, and any designated Certified Safety Professional (CSP) or Certified Industrial Hygienist (CIH). The SSHO must provide and maintain the APP and a log of signatures by each subcontractor foreman, attesting that they have read and understand the APP, and make the APP and log available on-site to the Contracting Officer. If English is not the foreman's primary language, the Prime Contractor must provide an interpreter.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. Once reviewed and accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP is cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified. Continuously review and amend the APP, as necessary, throughout the life of the contract. Changes to the accepted APP must be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and Quality Control Manager. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered. Should any severe hazard exposure (i.e. imminent danger) become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate and remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSE/SAFE A10.34), and the environment.

#### 1.6.1 Names and Qualifications

Provide plans in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

- a. Names and qualifications (resumes including education, training, experience and certifications) of site safety and health personnel designated to perform work on this project to include the designated Site Safety and Health Officer and other competent and qualified personnel to be used. Specify the duties of each position.
- b. Qualifications of competent and of qualified persons. As a minimum, designate and submit qualifications of competent persons for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; and personal protective equipment and clothing to include selection, use and maintenance.

## 1.6.2 Plans

Provide plans in the APP in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

### 1.6.2.1 Confined Space Entry Plan

Develop a confined or enclosed space entry plan in accordance with EM 385-1-1, applicable OSHA standards 29 CFR 1910, 29 CFR 1915, and 29 CFR 1926, OSHA Directive CPL 2.100, and any other federal, state and local regulatory requirements identified in this contract. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)

### 1.6.2.2 Standard Lift Plan (SLP)

Plan lifts to avoid situations where the operator cannot maintain safe control of the lift. Prepare a written SLP in accordance with EM 385-1-1, Section 16.A.03, using Form 16-2 for every lift or series of lifts (if duty cycle or routine lifts are being performed). The SLP must be developed, reviewed and accepted by all personnel involved in the lift in conjunction with the associated AHA. Signature on the AHA constitutes acceptance of the plan. Maintain the SLP on the LHE for the current lift(s) being made. Maintain historical SLPs for a minimum of 3 months.

### 1.6.2.3 Critical Lift Plan - Crane or Load Handling Equipment

Provide a Critical Lift Plan as required by EM 385-1-1, Section 16.H.01, using Form 16-3. Critical lifts require detailed planning and additional or unusual safety precautions. Develop and submit a critical lift plan to the Contracting Officer 30 calendar days prior to critical lift. Comply with load testing requirements in accordance with EM 385-1-1, Section 16.F.03.

In addition to the requirements of EM 385-1-1, Section 16.H.02, the critical lift plan must include the following:

- a. For lifts of personnel, demonstrate compliance with the requirements of 29 CFR 1926.1400 and EM 385-1-1, Section 16.T.
- b. For barge mounted mobile cranes, provide a Naval Architecture Analysis and include an LHE Manufacturer's Floating Service Load Chart in accordance with the criteria from the selected standard in EM 385-1-1, Section 16.L.02. The Floating Service Load Chart must provide a table of rated load versus boom angle and radius. The Floating Service Load Chart must also provide the maximum allowable machine list and trim associated with the tabular loads and radii provided. If the Manufacturer's Floating Service Load Chart is not available, a floating service load chart may be developed and provided by a qualified Registered Professional Engineer (RPE), competent in the field of floating cranes. The Load Chart must be in accordance with the criteria from the selected standard in EM 385-1-1, Section 16.L; provide a table of rated load versus boom angle and radius; provide the maximum allowable machine list and machine trim associated with the tabular loads and radii provided; and be stamped by a RPE

qualified and competent in the field of floating cranes. The RPE, competent in the field of floating cranes must stamp and certify (sign) that the Naval Architectural Analysis (NAA) meets the requirements of EM 385-1-1, Section 16.L.03.

- c. Multi-purpose machines, material handling equipment, and construction equipment used to lift loads that are suspended by rigging gear, require proof of authorization from the machine OEM that the machine is capable of making lifts of loads suspended by rigging equipment. Demonstrate that the operator is properly trained and that the equipment is properly configured to make such lifts and is equipped with a load chart.

#### 1.6.2.4 Fall Protection and Prevention (FP&P) Plan

The plan must comply with the requirements of EM 385-1-1, Section 21.D and ASSE/SAFE Z359.2, be site specific, and address all fall hazards in the work place and during different phases of construction. Address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 6 feet. A competent person or qualified person for fall protection must prepare and sign the plan documentation. Include fall protection and prevention systems, equipment and methods employed for every phase of work, roles and responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Review and revise, as necessary, the Fall Protection and Prevention Plan documentation as conditions change, but at a minimum every six months, for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. Keep and maintain the accepted Fall Protection and Prevention Plan documentation at the job site for the duration of the project. Include the Fall Protection and Prevention Plan documentation in the Accident Prevention Plan (APP).

#### 1.6.2.5 Rescue and Evacuation Plan

Provide a Rescue and Evacuation Plan in accordance with EM 385-1-1 Section 21.N and ASSE/SAFE Z359.2, and include in the FP&P Plan and as part of the APP. Include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility.

#### 1.6.2.6 Hazardous Energy Control Program (HECP)

Develop a HECP in accordance with EM 385-1-1 Section 12, 29 CFR 1910.147, 29 CFR 1910.333, 29 CFR 1915.89, ASSE/SAFE Z244.1, and ASSE/SAFE A10.44. Submit this HECP as part of the Accident Prevention Plan (APP). Conduct a preparatory meeting and inspection with all effected personnel to coordinate all HECP activities. Document this meeting and inspection in accordance with EM 385-1-1, Section 12.A.02. Ensure that each employee is familiar with and complies with these procedures.

#### 1.7 ACTIVITY HAZARD ANALYSIS (AHA)

Before beginning each activity, task or Definable Feature of Work (DFOW) involving a type of work presenting hazards not experienced in previous project operations, or where a new work crew or subcontractor is to perform the work, the Contractor(s) performing that work activity must prepare an AHA. AHAs must be developed by the Prime Contractor,

subcontractor, or supplier performing the work, and provided for Prime Contractor review and approval before submitting to the Contracting Officer. AHAs must be signed by the SSHO, Superintendent, QC Manager and the subcontractor Foreman performing the work. Format the AHA in accordance with EM 385-1-1, Section 1 or as directed by the Contracting Officer. Submit the AHA for review at least 15 working days prior to the start of each activity task, or DFO. The Government reserves the right to require the Contractor to revise and resubmit the AHA if it fails to effectively identify the work sequences, specific anticipated hazards, site conditions, equipment, materials, personnel and the control measures to be implemented.

AHAs must identify competent persons required for phases involving high risk activities, including confined entry, crane and rigging, excavations, trenching, electrical work, fall protection, and scaffolding.

#### 1.7.1 AHA Management

Review the AHA list periodically (at least monthly) at the Contractor supervisory safety meeting, and update as necessary when procedures, scheduling, or hazards change. Use the AHA during daily inspections by the SSHO to ensure the implementation and effectiveness of the required safety and health controls for that work activity.

#### 1.7.2 AHA Signature Log

Each employee performing work as part of an activity, task or DFO must review the AHA for that work and sign a signature log specifically maintained for that AHA prior to starting work on that activity. The SSHO must maintain a signature log on site for every AHA. Provide employees whose primary language is other than English, with an interpreter to ensure a clear understanding of the AHA and its contents.

### 1.8 DISPLAY OF SAFETY INFORMATION

#### 1.8.1 Safety Bulletin Board

Within one calendar day after commencement of work, erect a safety bulletin board at the job site. Where size, duration, or logistics of project do not facilitate a bulletin board, an alternative method, acceptable to the Contracting Officer, that is accessible and includes all mandatory information for employee and visitor review, may be deemed as meeting the requirement for a bulletin board. Include and maintain information on safety bulletin board as required by EM 385-1-1, Section 01.A.07. Additional items required to be posted include:

- a. Confined space entry permit.
- b. Hot work permit.

#### 1.8.2 Safety and Occupational Health (SOH) Deficiency Tracking System

Establish a SOH deficiency tracking system that lists and monitors the status of SOH deficiencies in chronological order. Use the tracking system to evaluate the effectiveness of the APP. A monthly evaluation of the data must be discussed in the QC or SOH meeting with everyone on the project. The list must be posted on the project bulletin board and updated daily, and provide the following information:

- a. Date deficiency identified;
- b. Description of deficiency;
- c. Name of person responsible for correcting deficiency;
- d. Projected resolution date;
- e. Date actually resolved.

#### 1.9 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in paragraph REFERENCES. Maintain applicable equipment manufacturer's manuals.

#### 1.10 EMERGENCY MEDICAL TREATMENT

Contractors must arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

#### 1.11 NOTIFICATIONS and REPORTS

##### 1.11.1 Mishap Notification

Notify the Contracting Officer as soon as practical, but no more than twenty-four hours, after any mishaps, including recordable accidents, incidents, and near misses, as defined in EM 385-1-1 Appendix Q, any report of injury, illness, load handling equipment (LHE) or rigging mishaps, or any property damage. The Contractor is responsible for obtaining appropriate medical and emergency assistance and for notifying fire, law enforcement, and regulatory agencies. Immediate reporting is required for electrical mishaps, to include Arc Flash; shock; uncontrolled release of hazardous energy (includes electrical and non-electrical); load handling equipment or rigging; fall from height (any level other than same surface); and underwater diving. These mishaps must be investigated in depth to identify all causes and to recommend hazard control measures.

Within notification include Contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (for example, type of construction equipment used and PPE used). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted. Assist and cooperate fully with the Government's investigation(s) of any mishap.

##### 1.11.2 Accident Reports

- a. Conduct an accident investigation for recordable injuries and illnesses, property damage, and near misses as defined in EM 385-1-1, to establish the root cause(s) of the accident. Complete the applicable USACE Accident Report Form 3394, and provide the report to the Contracting Officer within 5 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.
- b. Near Misses: Report all "Near Misses" to the GDA, using local mishap

reporting procedures, within 24 hrs. The Contracting Officer will provide the Contractor the required forms. Near miss reports are considered positive and proactive Contractor safety management actions.

- c. Conduct an accident investigation for any load handling equipment accident (including rigging gear accidents) to establish the root cause(s) of the accident. Complete the LHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within 30 calendar days of the accident. Do not proceed with crane operations until cause is determined and corrective actions have been implemented to the satisfaction of the Contracting Officer. The Contracting Officer will provide a blank copy of the accident report form.

#### 1.11.3 LHE Inspection Reports

Submit LHE inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.

#### 1.11.4 Certificate of Compliance and Pre-lift Plan/Checklist for LHE and Rigging

Provide a FORM 16-1 Certificate of Compliance for LHE entering an activity under this contract and in accordance with EM 385-1-1. Post certifications on the crane.

Develop a Standard Lift Plan (SLP) in accordance with EM 385-1-1, Section 16.H.03 using Form 16-2 Standard Pre-Lift Crane Plan/Checklist for each lift planned. Submit SLP to the Contracting Officer for approval within 15 calendar days in advance of planned lift.

#### 1.12 HOT WORK

##### 1.12.1 Permit and Personnel Requirements

Submit and obtain a written permit prior to performing "Hot Work" (i.e. welding or cutting) or operating other flame-producing/spark producing devices, from the Fire Marshall. A permit is required from the Explosives Safety Office for work in and around where explosives are processed, stored, or handled. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. Provide at least two 20 pound 4A:20 BC rated extinguishers for normal "Hot Work". The extinguishers must be current inspection tagged, and contain an approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch must be trained in accordance with NFPA 51B and remain on-site for a minimum of one hour after completion of the task or as specified on the hot work permit.

When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Fire Marshall's phone number. REPORT ANY FIRE, NO MATTER HOW SMALL, TO THE RESPONSIBLE FIRE MARSHALL IMMEDIATELY.

##### 1.12.2 Work Around Flammable Materials

Obtain services from a NFPA Certified Marine Chemist for "HOT WORK" within or around flammable materials (such as fuel systems or welding/cutting on fuel pipes) or confined spaces (such as sewer wet wells, manholes, or vaults) that have the potential for flammable or explosive atmospheres.



Whenever these materials, except beryllium (Be) and chromium (VI), are encountered in indoor operations, local mechanical exhaust ventilation systems that are sufficient to reduce and maintain personal exposures to within acceptable limits must be used and maintained in accordance with manufacturer's instruction and supplemented by exceptions noted in EM 385-1-1, Section 06.H

#### 1.13 CONFINED SPACE ENTRY REQUIREMENTS.

Confined space entry must comply with Section 34 of EM 385-1-1, OSHA 29 CFR 1926, OSHA 29 CFR 1910, OSHA 29 CFR 1910.146, and OSHA Directive CPL 2.100. Any potential for a hazard in the confined space requires a permit system to be used.

##### 1.13.1 Entry Procedures

Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. Comply with EM 385-1-1, Section 34 for entry procedures. Hazards pertaining to the space must be reviewed with each employee during review of the AHA.

##### 1.13.2 Forced Air Ventilation

Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its action level.

##### 1.13.3 Sewer Wet Wells

Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

##### 1.13.4 Rescue Procedures and Coordination with Local Emergency Responders

Develop and implement an on-site rescue and recovery plan and procedures. The rescue plan must not rely on local emergency responders for rescue from a confined space.

#### 1.14 DIVE SAFETY REQUIREMENTS

Develop a Dive Operations Plan, AHA, emergency management plan, and personnel list that includes qualifications, for each separate diving operation. Submit these documents to the District Dive Coordinator (DDC) for review and acceptance at least 15 working days prior to commencement of diving operations. These documents must be at the diving location at all times. Provide each of these documents as a part of the project file.

#### 1.15 SEVERE STORM PLAN

In the event of a severe storm warning, the Contractor must:

- a. Secure outside equipment and materials and place materials that could be damaged in protected areas.
- b. Check surrounding area, including roof, for loose material, equipment,

debris, and other objects that could be blown away or against existing facilities.

- c. Ensure that temporary erosion controls are adequate.

## PART 2 PRODUCTS

Not used.

## PART 3 EXECUTION

### 3.1 CONSTRUCTION AND OTHER WORK

Comply with EM 385-1-1, NFPA 70, NFPA 70E, NFPA 241, the APP, the AHA, Federal and State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard prevails.

PPE is governed in all areas by the nature of the work the employee is performing. Use personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks. Safety glasses must be worn or carried/available on each person. Mandatory PPE includes:

- a. Hard Hat
- b. Long Pants
- c. Appropriate Safety Shoes
- d. Appropriate Class Reflective Vests

#### 3.1.1 Worksite Communication

Employees working alone in a remote location or away from other workers must be provided an effective means of emergency communications (i.e., cellular phone, two-way radios, land-line telephones or other acceptable means). The selected communication must be readily available (easily within the immediate reach) of the employee and must be tested prior to the start of work to verify that it effectively operates in the area/environment. An employee check-in/check-out communication procedure must be developed to ensure employee safety.

#### 3.1.2 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint, and hexavalent chromium, are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. Low mercury lamps used within fluorescent lighting fixtures are allowed as an exception without further Contracting Officer approval. Notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

### 3.2 PRE-OUTAGE COORDINATION MEETING

Apply for utility outages at least 15 days in advance. As a minimum, the request must include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, attend a pre-outage coordination meeting with the Contracting Officer and the Public Utilities representative to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

### 3.3 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Provide and operate a Hazardous Energy Control Program (HECP) in accordance with EM 385-1-1 Section 12, 29 CFR 1910.333, 29 CFR 1915.89, and paragraph HAZARDOUS ENERGY CONTROL PROGRAM (HECP).

### 3.4 FALL PROTECTION PROGRAM

Establish a fall protection program, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify roles and responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures in accordance with ASSE/SAFE Z359.2 and EM 385-1-1, Sections 21.A and 21.D.

#### 3.4.1 Training

Institute a fall protection training program. As part of the Fall Protection Program, provide training for each employee who might be exposed to fall hazards. Provide training by a competent person for fall protection in accordance with EM 385-1-1, Section 21.C. Document training and practical application of the competent person in accordance with EM 385-1-1, Section 21.C.04 and ASSE/SAFE Z359.2 in the AHA.

#### 3.4.2 Fall Protection Equipment and Systems

Enforce use of personal fall protection equipment and systems designated (to include fall arrest, restraint, and positioning) for each specific work activity in the Site Specific Fall Protection and Prevention Plan and AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in EM 385-1-1, Section 21.

Provide personal fall protection equipment, systems, subsystems, and components that comply with EM 385-1-1 Section 21.I, 29 CFR 1926.500 Subpart M, ASSE/SAFE Z359.0, ASSE/SAFE Z359.1, ASSE/SAFE Z359.2, ASSE/SAFE Z359.3, ASSE/SAFE Z359.4, ASSE/SAFE Z359.6, ASSE/SAFE Z359.7, ASSE/SAFE Z359.11, ASSE/SAFE Z359.12, ASSE/SAFE Z359.13, ASSE/SAFE Z359.14, and ASSE/SAFE Z359.15.

##### 3.4.2.1 Additional Personal Fall Protection

In addition to the required fall protection systems, other protection such as safety skiffs, personal floatation devices, and life rings, are required when working above or next to water in accordance with EM 385-1-1,

Sections 21.0 through 21.0.06. Personal fall protection systems and equipment are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall protection systems are required when operating other equipment such as scissor lifts. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, travel, or while performing work.

#### 3.4.2.2 Personal Fall Protection Harnesses

Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. The use of body belts is not acceptable. Harnesses must have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Snap hooks and carabiners must be self-closing and self-locking, capable of being opened only by at least two consecutive deliberate actions and have a minimum gate strength of 3,600 lbs in all directions. Use webbing, straps, and ropes made of synthetic fiber. The maximum free fall distance when using fall arrest equipment must not exceed 6 feet, unless the proper energy absorbing lanyard is used. Always take into consideration the total fall distance and any swinging of the worker (pendulum-like motion), that can occur during a fall, when attaching a person to a fall arrest system. All full body harnesses must be equipped with Suspension Trauma Preventers such as stirrups, relief steps, or similar in order to provide short-term relief from the effects of orthostatic intolerance in accordance with EM 385-1-1, Section 21.I.06.

#### 3.4.3 Horizontal Lifelines (HLL)

Provide HLL in accordance with EM 385-1-1, Section 21.I.08.d.2. Commercially manufactured horizontal lifelines (HLL) must be designed, installed, certified and used, under the supervision of a qualified person, for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500). The competent person for fall protection may (if deemed appropriate by the qualified person) supervise the assembly, disassembly, use and inspection of the HLL system under the direction of the qualified person. Locally manufactured HLLs are not acceptable unless they are custom designed for limited or site specific applications by a Registered Professional Engineer who is qualified in designing HLL systems.

#### 3.4.4 Guardrails and Safety Nets

Design, install and use guardrails and safety nets in accordance with EM 385-1-1, Section 21.F.01 and 29 CFR 1926 Subpart M.

#### 3.4.5 Rescue and Evacuation Plan and Procedures

When personal fall arrest systems are used, ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue or assisted-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. Include the Rescue and Evacuation Plan within the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP). The plan must comply with the requirements of

EM 385-1-1, ASSE/SAFE Z359.2, and ASSE/SAFE Z359.4.

### 3.5 EQUIPMENT

#### 3.5.1 Material Handling Equipment (MHE)

- a. Material handling equipment such as forklifts must not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions. Material handling equipment fitted with personnel work platform attachments are prohibited from traveling or positioning while personnel are working on the platform.
- b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions. Material Handling Equipment Operators must be trained in accordance with OSHA 29 CFR 1910, Subpart N.
- c. Operators of forklifts or power industrial trucks must be licensed in accordance with OSHA.

#### 3.5.2 Load Handling Equipment (LHE)

- a. Equip cranes and derricks as specified in EM 385-1-1, Section 16.
- b. Notify the Contracting Officer 15 working days in advance of any LHE entering the activity, in accordance with EM 385-1-1, Section 16.A.02, so that necessary quality assurance spot checks can be coordinated. Contractor's operator must remain with the crane during the spot check. Rigging gear must comply with OSHA and ASME B30.9 Standards.
- c. Comply with the LHE manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in ASME B30.5). Perform all testing in accordance with the manufacturer's recommended procedures.
- d. Comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, ASME B30.8 for floating cranes and floating derricks, ASME B30.9 for slings, ASME B30.20 for below the hook lifting devices and ASME B30.26 for rigging hardware.
- e. Under no circumstance must a Contractor make a lift at or above 90 percent of the cranes rated capacity in any configuration.
- f. When operating in the vicinity of overhead transmission lines, operators and riggers must be alert to this special hazard and follow the requirements of EM 385-1-1 Section 11, and ASME B30.5 or ASME B30.22 as applicable.
- g. Do not use crane suspended personnel work platforms (baskets) unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Do not lift personnel with a line hoist or friction crane. Additionally, submit a specific AHA for this work to the Contracting Officer. Ensure the activity and AHA are thoroughly reviewed by all involved personnel.

- h. Inspect, maintain, and recharge portable fire extinguishers as specified in NFPA 10, Standard for Portable Fire Extinguishers.
- i. All employees must keep clear of loads about to be lifted and of suspended loads.
- j. Use cribbing when performing lifts on outriggers.
- k. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
- l. A physical barricade must be positioned to prevent personnel access where accessible areas of the LHE's rotating superstructure poses a risk of striking, pinching or crushing personnel.
- m. Maintain inspection records in accordance by EM 385-1-1, Section 16.D, including shift, monthly, and annual inspections, the signature of the person performing the inspection, and the serial number or other identifier of the LHE that was inspected. Records must be available for review by the Contracting Officer.
- n. Maintain written reports of operational and load testing in accordance with EM 385-1-1, Section 16.F, listing the load test procedures used along with any repairs or alterations performed on the LHE. Reports must be available for review by the Contracting Officer.
- o. Certify that all LHE operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
- p. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. At wind speeds greater than 20 mph, the operator, rigger and lift supervisor must cease all crane operations, evaluate conditions and determine if the lift may proceed. Base the determination to proceed or not on wind calculations per the manufacturer and a reduction in LHE rated capacity if applicable. Include this maximum wind speed determination as part of the activity hazard analysis plan for that operation.

### 3.5.3 Machinery and Mechanized Equipment

- a. Proof of qualifications for operator must be kept on the project site for review.
- b. Manufacture specifications or owner's manual for the equipment must be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Incorporate such additional safety precautions or requirements into the AHAs.

### 3.6 ELECTRICAL

Perform electrical work in accordance with EM 385-1-1, Appendix A, Sections 11 and 12.

#### 3.6.1 Conduct of Electrical Work

As delineated in EM 385-1-1, electrical work is to be conducted in a de-energized state unless there is no alternative method for accomplishing

the work. In those cases obtain an energized work permit from the Contracting Officer. The energized work permit application must be accompanied by the AHA and a summary of why the equipment/circuit needs to be worked energized. Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Attach temporary grounds in accordance with ASTM F855 and IEEE 1048. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator is allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method.

When working in energized substations, only qualified electrical workers are permitted to enter. When work requires work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves and electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA. Ensure that each employee is familiar with and complies with these procedures and 29 CFR 1910.147.

### 3.6.2 Qualifications

Electrical work must be performed by QP personnel with verifiable credentials who are familiar with applicable code requirements. Verifiable credentials consist of State, National and Local Certifications or Licenses that a Master or Journeyman Electrician may hold, depending on work being performed, and must be identified in the appropriate AHA. Journeyman/Apprentice ratio must be in accordance with State, Local and Host Nation requirements applicable to where work is being performed.

### 3.6.3 Arc Flash

Conduct a hazard analysis/arc flash hazard analysis whenever work on or near energized parts greater than 50 volts is necessary, in accordance with NFPA 70E.

All personnel entering the identified arc flash protection boundary must be QPs and properly trained in NFPA 70E requirements and procedures. Unless permitted by NFPA 70E, no Unqualified Person is permitted to approach nearer than the Limited Approach Boundary of energized conductors and circuit parts. Training must be administered by an electrically qualified source and documented.

### 3.6.4 Grounding

Ground electrical circuits, equipment and enclosures in accordance with NFPA 70 and IEEE C2 to provide a permanent, continuous and effective path to ground unless otherwise noted by EM 385-1-1.

Check grounding circuits to ensure that the circuit between the ground and a grounded power conductor has a resistance low enough to permit sufficient current flow to allow the fuse or circuit breaker to interrupt the current.

### 3.6.5 Testing

Temporary electrical distribution systems and devices must be inspected, tested and found acceptable for Ground-Fault Circuit Interrupter (GFCI) protection, polarity, ground continuity, and ground resistance before initial use, before use after modification and at least monthly. Monthly inspections and tests must be maintained for each temporary electrical distribution system, and signed by the electrical CP or QP.

-- End of Section --



SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS  
02/19

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization (e.g. ASTM B564 Standard Specification for Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided.

ASME INTERNATIONAL (ASME)  
Two Park Avenue  
New York, NY 10016-5990  
Ph: 800-843-2763  
Fax: 973-882-1717  
E-mail: [customer-care@asme.org](mailto:customer-care@asme.org)  
Internet: <https://www.asme.org/>

ASTM INTERNATIONAL (ASTM)  
100 Barr Harbor Drive, P.O. Box C700  
West Conshohocken, PA 19428-2959  
Ph: 610-832-9500  
Fax: 610-832-9555  
E-mail: [service@astm.org](mailto:service@astm.org)  
Internet: <https://www.astm.org/>

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)  
445 and 501 Hoes Lane  
Piscataway, NJ 08854-4141  
Ph: 732-981-0060 or 800-701-4333  
Fax: 732-981-9667  
E-mail: [onlinesupport@ieee.org](mailto:onlinesupport@ieee.org)  
Internet: <https://www.ieee.org/>

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)  
1 Batterymarch Park  
Quincy, MA 02169-7471  
Ph: 800-344-3555  
Fax: 800-593-6372  
Internet: <https://www.nfpa.org>

U.S. ARMY CORPS OF ENGINEERS (USACE)  
CRD-C DOCUMENTS available on Internet:  
<http://www.wbdg.org/ffc/army-coe/standards>  
Order Other Documents from:  
Official Publications of the Headquarters, USACE  
E-mail: [hqpublications@usace.army.mil](mailto:hqpublications@usace.army.mil)  
Internet: <http://www.publications.usace.army.mil/>  
or  
<https://www.hnc.usace.army.mil/Missions/Engineering-Directorate/TECHINFO/>

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)  
8601 Adelphi Road  
College Park, MD 20740-6001  
Ph: 866-272-6272  
Internet: <https://www.archives.gov/>  
Order documents from:  
Superintendent of Documents  
U.S. Government Publishing Office (GPO)  
732 N. Capitol Street, NW  
Washington, DC 20401  
Ph: 202-512-1800 or 866-512-1800  
Bookstore: 202-512-0132  
Internet: <https://www.gpo.gov/>

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

-- End of Section --

SECTION 01 45 00.00 10

QUALITY CONTROL  
11/16

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D3740 (2012a) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM E329 (2014a) Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program. Include all associated costs in the applicable Bid Schedule item.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Contractor Quality Control (CQC) Plan; G, OP

SD-06 Test Reports

Verification Statement

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Establish and maintain an effective quality control (QC) system that complies with the Contract Clause titled "Inspection of Construction." QC

consist of plans, procedures, and organization necessary to produce an end product which complies with the Contract requirements. The QC system covers all construction operations, both onsite and offsite, and be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the Contract. In this context the highest level manager responsible for the overall construction activities at the site, including quality and production is the project superintendent. The project superintendent maintains a physical presence at the site at all times and is responsible for all construction and related activities at the site, except as otherwise acceptable to the Contracting Officer.

### 3.2 CONTRACTOR QUALITY CONTROL (CQC) PLAN

The Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction" shall be submitted as a pre-construction submittal prior to the start of work. The Government will consider an interim plan for the first 15 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional work.

#### 3.2.1 Content of the CQC Plan

Include, as a minimum, the following to cover all construction-operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will implement the three phase control system for all aspects of the work specified. Include a CQC System Manager that reports to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the Contract. Letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities will be issued by the CQC System Manager. Copies of these letters must be furnished to the Contracting Officer.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures must be in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities approved by

the Contracting Officer are required to be used.)

- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. Establish verification procedures that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and is identified by different trades or disciplines, or it is work by the same trade in a different environment. Although each section of the specifications can generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

### 3.2.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in the Contractor Quality Control(CQC) Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

### 3.2.3 Notification of Changes

After acceptance of the CQC Plan, notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

### 3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, meet with the Contracting Officer and discuss the Contractor's quality control system. Submit the CQC Plan a minimum of 5 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details must be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting will be prepared by the Government, signed by both the Contractor and the Contracting Officer and will become a part of the contract file. There can be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings or address deficiencies in the CQC system or procedures which can require corrective action by the Contractor.

### 3.4 QUALITY CONTROL ORGANIZATION

#### 3.4.1 Personnel Requirements

The requirements for the CQC organization are a Safety and Health Manager, CQC System Manager, and sufficient number of additional qualified personnel to ensure safety and Contract compliance. The Safety and Health Manager reports directly to a senior project (or corporate) official independent from the CQC System Manager. The Safety and Health Manager will also serve as a member of the CQC Staff Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff maintains a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure Contract compliance. The CQC staff will be subject to acceptance by the Contracting Officer. Provide adequate office space, filing systems, and other resources as necessary to maintain an effective and fully functional CQC organization. Promptly complete and furnish all letters, material submittals, shop drawing submittals, schedules and all other project documentation to the CQC organization. The CQC organization is responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

#### 3.4.2 CQC System Manager

Identify as CQC System Manager an individual within the onsite work organization that is responsible for overall management of CQC and has the authority to act in all CQC matters for the Contractor. The CQC System Manager is required to be a construction person with a minimum of 5 years in related work. This CQC System Manager is on the site at all times during construction and is employed by the prime Contractor. The CQC System Manager must be assigned as CQC System Manager but may have duties as project superintendent in addition to quality control. Identify in the plan an alternate to serve in the event of the CQC System Manager's absence. The requirements for the alternate are the same as the CQC System Manager.

#### 3.4.3 Additional Requirement

In addition to the above experience and education requirements, the Contractor Quality Control(CQC) System Manager and Alternate CQC System Manager are required to have completed the Construction Quality Management (CQM) for Contractors course. If the CQC System Manager does not have a current certification, obtain the CQM for Contractors course certification within 90 days of award. This course is periodically offered by the Naval Facilities Engineering Command and the Army Corps of Engineers. Contact the Contracting Officer for information on the next scheduled class.

The Construction Quality Management Training certificate expires after 5 years. If the CQC System Manager's certificate has expired, retake the course to remain current.

#### 3.4.4 Organizational Changes

Maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

### 3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, have to comply with the requirements in Section 01 33 00 SUBMITTAL PROCEDURES. The CQC organization is responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

### 3.6 CONTROL

CQC is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control are required to be conducted by the CQC System Manager for each definable feature of the construction work as follows:

#### 3.6.1 Preparatory Phase

This phase is performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase includes:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. Make available during the preparatory inspection a copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field. Maintain and make available in the field for use by Government personnel until final acceptance of the work.
- b. Review of the Contract drawings.
- c. Check to assure that all materials and equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the Contract.
- f. Examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. Review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. Check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government needs to be notified at least 24 hours in advance of beginning the preparatory control phase. Include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the

definable feature. Document the results of the preparatory phase actions by separate minutes prepared by the CQC System Manager and attach to the daily CQC report. Instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

### 3.6.2 Initial Phase

This phase is accomplished at the beginning of a definable feature of work. Accomplish the following:

- a. Check work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing are in compliance with the contract.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required samples as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government needs to be notified at least 24 hours in advance of beginning the initial phase for definable feature of work. Prepare separate minutes of this phase by the CQC System Manager and attach to the daily CQC report. Indicate the exact location of initial phase for definable feature of work for future reference and comparison with follow-up phases.
- g. The initial phase for each definable feature of work is repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

### 3.6.3 Follow-up Phase

Perform daily checks to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. Record the checks in the CQC documentation. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of work which may be affected by the deficient work. Do not build upon nor conceal non-conforming work.

### 3.6.4 Additional Preparatory and Initial Phases

Conduct additional preparatory and initial phases on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.



### 3.7 TESTS

#### 3.7.1 Testing Procedure

Perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and acceptance tests when specified. Procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. Perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Record results of all tests taken, both passing and failing on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test. If approved by the Contracting Officer, actual test reports are submitted later with a reference to the test number and date taken. Provide an information copy of tests performed by an offsite or commercial test facility directly to the Contracting Officer. Failure to submit timely test reports as stated results in nonpayment for related work performed and disapproval of the test facility for this Contract.

#### 3.7.2 Testing Laboratories

All testing laboratories must be validated by the USACE Material Testing Center (MTC) for the tests to be performed. Information on the USACE MTC with web-links to both a list of validated testing laboratories and for the laboratory inspection request for can be found at:

##### 3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils are required to meet criteria detailed in ASTM D3740 and ASTM E329.

##### 3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge to be determined by the Contracting Officer's Representative to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the Contract amount due the Contractor.

### 3.7.3 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests, and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

## 3.8 COMPLETION INSPECTION

### 3.8.1 Punch-Out Inspection

Conduct an inspection of the work by the CQC System Manager near the end of the work, or any increment of the work established by a time stated in the ADDITIONAL SPECIAL CONTRACT REQUIREMENTS Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications. Prepare and include in the CQC documentation a punch list of items which do not conform to the approved drawings and specifications, as required by paragraph DOCUMENTATION. Include within the list of deficiencies the estimated date by which the deficiencies will be corrected. Make a second inspection with the CQC System Manager or staff to ascertain that all deficiencies have been corrected. Once this is accomplished, notify the Government that the facility is ready for the Government Pre-Final inspection.

### 3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the work has been completed in accordance with the contract requirements. A Government Pre-Final Punch List may be developed as a result of this inspection. Ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection can be scheduled. Correct any items noted on the Pre-Final inspection in a timely manner. These inspections and any deficiency corrections required by this paragraph need to be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

### 3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative are required to be in attendance at the final acceptance inspection. Additional Government personnel may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notify the Contracting Officer at least 14 days prior to the final acceptance inspection and include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the Contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the Contract clause titled "Inspection of Construction".

### 3.9 DOCUMENTATION

#### 3.9.1 Quality Control Activities

Maintain current records providing factual evidence that required quality control activities and tests have been performed. Include in these records the work of subcontractors and suppliers on an acceptable form that includes, as a minimum, the following information:

- a. The name and area of responsibility of the Contractor/Subcontractor.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and control activities performed with results and references to specifications/drawings requirements. Identify the control phase (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with Contract reference, by whom, and action taken.
- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and specifications.

#### 3.9.2 Verification Statement

Indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. Cover both conforming and deficient features and include a statement that equipment and materials incorporated in the work and workmanship comply with the Contract. Furnish the original and one copy of these records in report form to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, prepare and submit one report for every 7 days of no work and on the last day of a no work period. All calendar days need to be accounted for throughout the life of the contract. The first report following a day of no work will be for that day only. Reports need to be signed and dated by the Contractor Quality Control (CQC) System Manager. Include copies of test reports and copies of reports prepared by all subordinate quality control personnel within the CQC System Manager Report.

### 3.10 SAMPLE FORMS

A Daily Contractor Quality Control (CQC) Report (Form 696) is enclosed at the end of this section.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer can issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders will be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

-- End of Section --

SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE(RMS CM)  
11/16

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements  
Manual

1.2 Contract Administration

The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Contractor uses the Government-furnished Construction Contractor Mode of RMS, referred to as RMS CS, to record, maintain, and submit various information throughout the contract period. The Contractor mode user manuals, updates, and training information can be downloaded from the RMS web site (<http://rms.usace.army.mil>). The joint Government-Contractor use of RMS facilitates electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

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

1.2.1 Correspondence and Electronic Communications

For ease and speed of communications, exchange correspondence and other documents in electronic format to the maximum extent feasible between the Government and Contractor. Correspondence, pay requests, and other documents comprising the official contract record are also to be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.2.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01 32 01.00 10PROJECT SCHEDULE, Section 01 33 00 SUBMITTAL PROCEDURES, and Section 01 45 00.00 10 QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through RMS. Also, there is no separate payment for establishing and maintaining the RMS database; costs

associated will be included in the contract pricing for the work.

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 Section 1.3. The Government will make available the RMS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor will be responsible to download, install and use the latest version of the RMS software from the Government's RMS Internet Website. Any program updates of RMS will be made available to the Contractor via the Government RMS Website as the updates become available.

1.3.1 RMS CONTRACTOR'S MODE (CM)

RMS Contractor's Mode or RMS CM is the replacement for Quality Control System or QCS. The database remains the same. References to RMS in this specification includes RMS CM.

1.4 SYSTEM REQUIREMENTS

The following is the minimum system configuration required to run RMS and Contractor Mode:

Minimum RMS System Requirements	
Hardware	
Windows-based PC	1.5 GHz 2 core or higher processor
RAM	8 GB
Hard drive disk	200 GB space for sole use by the QCS 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
Word Processing software	Viewer for MS Word 2013, MS Excel 2013, or newer

Minimum RMS System Requirements	
Microsoft.NET Framework	Coordinate with Government QA Representative for free version required
Email	MAPI compatible
Virus protection software	Regularly upgraded with all issued manufacturer's updates and is able to detect most zero day viruses.

## 1.5 RELATED INFORMATION

### 1.5.1 RMS User Guide

After contract award, download instructions for the installation and use of RMS from the Government RMS Internet Website.

## 1.6 CONTRACT DATABASE

Prior to the pre-construction conference, the Government will provide the Contractor with basic contract award data to use for RMS. The Government will provide data updates to the Contractor as needed. These updates will generally consist of submittal reviews, correspondence status, Quality Assurance(QA) comments, and other administrative and QA data.

## 1.7 DATABASE MAINTENANCE

Establish, maintain, and update data in the RMS database throughout the duration of the contract at the Contractor's site office. Submit data updates to the Government (e.g., daily reports, submittals, RFI's, schedule updates, payment requests) using RMS. The RMS database typically includes current data on the following items:

### 1.7.1 Administration

#### 1.7.1.1 Contractor Information

Contain within the database the Contractor's name, address, telephone numbers, management staff, and other required items. Within 7 calendar days of receipt of RMS software from the Government, deliver Contractor administrative data in electronic format in RMS.

#### 1.7.1.2 Subcontractor Information

Contain within the database the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor is listed separately for each trade to be performed. Assign each subcontractor/trade a unique Responsibility Code, provided in RMS. Within 7 calendar days of receipt of RMS software from the Government, deliver subcontractor administrative data in electronic format.

#### 1.7.1.3 Correspondence

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

#### 1.7.1.4 Equipment

Contain within the Contractor's RMS database a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

#### 1.7.1.5 Management Reporting

RMS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of RMS. Among these reports are: Progress Payment Request worksheet, Quality Assurance/Quality Control (QA/QC) comments, Submittal Register Status, Three-Phase Control checklists.

#### 1.7.1.6 Request For Information (RFI)

Exchange all Requests For Information (RFI) using the Built-in RFI generator and tracker in RMS.

### 1.7.2 Finances

#### 1.7.2.1 Pay Activity Data

Include within the RMS database a list of pay activities that the Contractor develops in conjunction with the construction 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 equals the amount of each CLIN. The sum of all CLINs equals the contract amount.

#### 1.7.2.2 Payment Requests

Prepare all progress payment requests using RMS. Complete the payment request worksheet, prompt payment certification, and payment invoice in RMS. Update the work completed under the contract, measured as percent or as specific quantities, at least monthly. After the update, generate a payment request report using RMS. Submit the payment request, prompt payment certification, and payment invoice with supporting data using RMS CM. If permitted by the Contracting Officer, email or a optical disc may be used. A signed paper copy of the approved payment request is also required and will govern in the event of discrepancy with the electronic version.

### 1.7.3 Quality Control (QC)

RMS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. Maintain this data on a daily basis. Entered data will automatically output to the



RMS generated daily report. Provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01 45 00.00 10 QUALITY CONTROL. Within seven calendar days of Government acceptance, submit a RMS update reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

#### 1.7.3.1 Daily Contractor Quality Control (CQC) Reports.

RMS includes the means to produce the Daily CQC Report. The Contractor can use other formats to record basic Quality Control(QC) data. However, the Daily CQC Report generated by RMS must be the Contractor's official report. Summarize data from any supplemental reports by the Contractor and consolidate onto the RMS-generated Daily CQC Report. Submit daily CQC Reports as required by Section 01 45 00.00 10 QUALITY CONTROL. Electronically submit reports to the Government within 24 hours after the date covered by the report. Also provide the Government a signed, printed copy of the daily CQC report.

#### 1.7.3.2 Deficiency Tracking.

Use RMS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using its Quality Control (QC) punch list items. Maintain a current log of its QC punch list items in the RMS database. The Government will log the deficiencies it has identified using its Quality Assurance (QA) punch list items. The Government's QA punch list items will be included in its export file to the Contractor. Regularly update the correction status of both QC and QA punch list items.

#### 1.7.3.3 QC Requirements

Develop and maintain a complete list of QC testing and required structural and life safety special inspections required by the International Code Council (ICC), transferred and installed property, and user training requirements in RMS. Update data on these QC requirements as work progresses, and promptly provide the information to the Government via RMS.

#### 1.7.3.4 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS.

#### 1.7.3.5 Labor and Equipment Hours

Log labor and equipment exposure hours on a daily basis. The labor and equipment exposure data will be rolled up into a monthly exposure report.

#### 1.7.3.6 Accident/Safety Reporting

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be provided via RMS CM. Regularly update the correction status of the safety comments. In addition, utilize RMS to advise the Government of any accidents occurring on the jobsite. A brief supplemental entry of an accident is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

#### 1.7.3.7 Features of Work

Include a complete list of the features of work in the RMS database. A feature of work is associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

#### 1.7.3.8 Hazard Analysis

Use RMS CM to develop a hazard analysis for each feature of work included in the CQC Plan. The Activity Hazard Analysis will include information required by EM 385-1-1, paragraph 01.A.13.

#### 1.7.4 Submittal Management

The Government will provide the initial submittal register in electronic format. Thereafter, maintain a complete list of submittals, including completion of data columns. Dates when submittals are received and returned by the Government will be included. Use RMS CM to track and transmit submittals. ENG Form 4025, submittal transmittal form, and the submittal register update is produced using RMS. RMS will be used to update, store and exchange submittal registers and transmittals. In addition to requirements stated in specification 01 33 00, actual submittals are to be stored in RMS CM, with hard copies also provided. Exception will be where the Contracting Officer specifies only hard copies required, where size of document cannot be saved in RMS CM, and where samples, spare parts, color boards, and full size drawings are to be provided.

#### 1.7.5 Schedule

Develop a construction schedule consisting of pay activities, in accordance with Section 01 32 01.00 10 PROJECT SCHEDULE. Input and maintain in the RMS database the schedule either manually or by using the Standard Data Exchange Format (SDEF) (see Section 01 32 01.00 10 PROJECT SCHEDULE). Include with each pay request the updated schedule. Provide electronic copies of transmittals.

#### 1.7.6 Import/Export of Data

RMS includes the ability to import schedule data using SDEF.

#### 1.8 IMPLEMENTATION

Use of RMS CM as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain contract data within the RMS CM system. RMS CM is an integral part of the Contractor's management of quality control.

#### 1.9 MONTHLY COORDINATION MEETING

Update the RMS CM database each workday. At least monthly, generate and submit a schedule update. At least one week prior to submittal, meet with the Government representative to review the planned progress payment data submission for errors and omissions.

Make required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will not be accepted. The

Government will not process progress payments until all required corrections are processed.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

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<b>CONTRACTOR'S QUALITY CONTROL REPORT (QCR)</b> (ER 1180-1-6)		DATE:	REPORT NO.:
CONTRACT NUMBER AND NAME OF CONTRACTOR:		DESCRIPTION AND LOCATION OF THE WORK:	
<b>WEATHER CLASSIFICATION:</b> CLASS A No interruptions of any kind from weather conditions occurring on this or previous shifts. CLASS B Weather occurred during this shift that caused a complete stoppage of all work. CLASS C Weather occurred during this shift that caused a partial stoppage of work. CLASS D Weather overhead excellent or suitable during shift. Work completely stopped due to results of previous adverse weather. CLASS E Weather overhead excellent or suitable during shift but work partially stopped due to previous adverse manner. OTHER Explain.		<b>CLASSIFICATION:</b> CLASS _____ <b>TEMPERATURE:</b> MAX _____ MIN _____ <b>PRECIPITATION:</b> INCHES _____	
<b>CONTRACTOR/SUBCONTRACTORS AND AREA OF RESPONSIBILITY FOR WORK PERFORMED TODAY:</b> <i>(Attach list of items of equipment either idle or working as appropriate.)</i> a. _____ b. _____ c. _____ d. _____ e. _____ f. _____ g. _____ 1. <b>WORK PERFORMED TODAY:</b> (Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in Table above.) <b>PURPOSE: Contractors Daily QC Report. Revision necessitated by EIG recommendation</b> <b>MONTHLY USAGE: 1,500</b> <b>PRESCRIBING DIRECTIVE: ER 1180-1-6</b> <b>FUNCTIONAL CODE: 1180 Series - Engineer Contracts</b>			
2. <b>TYPE AND RESULTS OF INSPECTION:</b> (Indicate whether: P - Preparatory, I - Initial, or F - Follow-up and include satisfactory work completed or deficiencies with action to be taken.)			
3. <b>TESTS REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS:</b>			

4. VERBAL INSTRUCTIONS RECEIVED: (List any instructions given by Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

5. REMARKS: (Cover any conflicts in plans, specifications or instructions: acceptability of incoming materials: offsite surveillance activities; progress of work, delays, causes and extent thereof; days of no work with reasons for same.)

6. SAFETY: (Include any infractions of approved safety plan, safety manual or instructions from Government personnel. Specify corrective action taken.)

INSPECTOR

CONTRACTOR'S CERTIFICATION: I certify that the above report is complete and correct and that all material and equipment used, work performed and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above.

CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE

SECTION 01 57 20

ENVIRONMENTAL PROTECTION (PIPELINE HYDRAULIC DREDGE)

1. SCOPE: The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution during maintenance and new work dredging of the **Mobile Harbor, Alabama** federally authorized navigation project designated in this contract, except for those measures set forth in other Technical Provisions of these specifications.

For the purpose of this specification, environmental pollution is defined as: a) the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; b) unfavorably alter ecological balances; c) affect other species of designated importance of man; or d) degrade the utility of the environment for esthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise control, solid-waste management, as well as control of other pollutants.

2. APPLICABLE REGULATIONS: The Contractor and his subcontractors in the performance of this contract, shall comply with all applicable Federal, state, and local laws and regulations and/or requirements concerning environmental pollution control and abatement (including special conditions specified by the U.S. Fish and Wildlife Service), all applicable provisions of the U.S. Army Corps of Engineers Manual, EM 385-1-1, entitled "Safety and Health Requirements", in effect on the date of solicitation, and the specific requirements stated elsewhere in the contract specifications.

3. NOTIFICATION: The Contracting Officer will notify the Contractor in writing of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the 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 the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it is later determined that the Contractor was in compliance.

4. SUBCONTRACTORS: When conducting maintenance and new work dredging of the Mobile Harbor Federal navigation channel in Alabama, the Contractor and their subcontractors shall comply with all requirements under the terms and conditions set out in the certifications by the

Alabama Department of Environmental Management (ADEM), U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS) in compliance with the provisions of the Contract and applicable Federal, state, and local environmental laws and regulations. Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor.

a) Prior to commencement of the work, the Contractor shall, after receipt of Notice of Award of the Contract and at least 7 days prior to the Preconstruction Conference, submit in writing the above Environmental Protection Plan, and shall meet with representative(s) of the Contracting Office, Mr. Don Mroczko, donald.e.mroczko@usace.army.mil, to develop mutual understanding relative to compliance with this provision and administration of the environmental protection program.

b) The Contractor shall record on daily reports any problems in complying with laws, regulations and ordinances and corrective action taken.

c) The Contractor shall prepare a listing of resources needing protection (i.e., upland vegetation, wetlands, oyster reefs, landscape features, air quality, noise levels, surface and groundwater quality, fish and wildlife, and historical, archeological and cultural resources) within authorized work areas.

d) The Contractor shall prepare a contaminant prevention statement that identifies all potentially hazardous substances on the job site and the intended actions to be taken to prevent the accidental or intentional introduction of such materials into the air, the water or the ground.

e) The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures identified in the environmental protection plan.

f) The Contractor shall keep dredging and placement activities under surveillance and shall exercise all necessary controls to minimize damage to the environment by noise from equipment and various activities. Areas that have noise levels greater than 85-dB continuously, or 140-dB peak (unweighted) impulse, must be designated as noise hazardous areas. These work areas must have caution signs displayed at the perimeter of the noise area indicating the presence of hazardous noise levels and requiring the use of hearing protection devices.

g) The Contractor shall detail special provisions taken to meet Federal, state, and local laws and regulations regarding the storage and handling of solid and hazardous waste materials.

5. IMPLEMENTATION: Prior to commencement of the work, the Contractor shall after receipt of Notice of Award of the Contract and at least 7



days prior to the Preconstruction Conference, submit in writing the above Environmental Protection Plan to Lekesha Reynolds via email at [Lekesha.W.Reynolds@usace.army.mil](mailto:Lekesha.W.Reynolds@usace.army.mil), and shall meet with representative(s) of the Contracting Office to develop mutual understanding relative to compliance with this provision and administration of the environmental protection program.

6. PROTECTION OF WATER RESOURCES: The Contractor shall not pollute any water bodies including streams, lakes, bays, estuaries, or other marine or fresh waters with fuels, oils, trash, acids, or any other harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, state, county, and municipal laws concerning water pollution. The discharge of plastics of any kind within estuarine or marine waters is strictly prohibited. All work under this contract shall also be performed in such a manner that objectionable conditions will not be created in proximity to the project areas.

a) The Contractor shall ensure dredging and the placement of material is in accordance with the plans and specifications included herein and shall be performed with minimum damage to the environment.

b) The Contract designates areas for placement of all dredged material. No other areas are approved for dredged material placement.

c) The Contractor shall limit the depth of cut in a single swing of the dredge to that depth that precludes the collapse of the facing material or control the dredge speed to obtain a reasonable progress without producing excessive turbidity as defined in item #4 below.

d) The Contractor must comply with all turbidity and monitoring standards and other specific conditions set forth in the water quality standards. Ambient turbidity levels shall not exceed background turbidity by more than 50 Nephelometric Turbidity Units. If turbidity resulting from the project exceeds these levels, the Contractor will cease activities until turbidity levels are in compliance. Should work stoppage occur, the Contractor will notify the U.S. Army Corps of Engineers [Contracting Officer and Planning and Environmental Division, Coastal Environment Team (ATTN: Ms. Lekesha Reynolds at 251-690-3260)]. Turbidity Monitoring Reports shall be emailed on a weekly basis to Ms. Lekesha Reynolds at [Lekesha.W.Reynolds@usace.army.mil](mailto:Lekesha.W.Reynolds@usace.army.mil) and Mr. Don Mroczko at [Donald.e.mroczko@usace.army.mil](mailto:Donald.e.mroczko@usace.army.mil).

e) Any material moved by the dredge, pipeline, or any other such equipment shall be moved in such a way that: a) material will not be placed outside of the placement site boundaries as specified by the Contract; and b) safeguards against excess turbidity and suspended solids entering any adjacent water body. Work shall be performed in such a way as not to impact local wetland areas.

f) Special measures shall be taken to prevent chemicals, fuels, oils, and greases at the open water and upland placement sites or along the pipeline from entering area waters, at all times.

g) The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in area designated by the Contracting Officer. The Contracting Officer shall approve all temporary movement or relocation of Contractor facilities.

h) Discharge of any pollutant into the watercourse is strictly prohibited, except as otherwise specified or allowed in other sections of the Technical Specifications.

7. MOBILE OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS):  
Placement of the dredged sediments via bottom-dump scow within the ODMDS will be conducted in accordance with the conditions specified below in the Section 103 concurrence letter from U.S. Environmental Protection Agency (EPA) and the Site Management and Monitoring Plan (SMMP). Both of these documents are included in the Environmental Compliance Appendix.

a) Mobile Maintenance Ocean Disposal Conditions

(1) A bathymetry survey of the ODMDS release zone will be conducted within three months prior to initiation of disposal activities.

(2) A bathymetry survey of the ODMDS release zone will be conducted within thirty days of completion of disposal activities.

(3) All disposal will be initiated at least 330 feet within the boundaries of the Mobile ODMDS.

(4) The following special conditions for Dredging Units will be followed:

<b>Dredging Unit</b>	<b>Load Limit</b>
DU3	15,000
DU4A	15,000
DU4B	15,000
DU5A	15,000
DU5B *	13,500
DU6A *	13,500
DU7A	15,000
DU12	15,000

**\* Emphasis added to highlight Load Limits of 13,500 cubic yards.**

8. RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS: All items having any apparent historical or archeological interest, which are discovered in the course of any removing of material and placement activities, shall be carefully preserved and protected. The Contractor

shall leave the archaeological find undisturbed, secure the site to the extent reasonably possible, and immediately report the find to the Contracting Officer so the proper authorities may be notified. Existing historical, archeological and cultural resources for avoidance within the Contractor's work area will be so designated by the Contracting Officer. The Contracting Officer will further coordinate with the Mobile District Archeological Staff (attn: Mr. Mike Malsom PD-EI, (251) 690-2023 and Dr. Patrick M. O'Day, PD-EI (251) 690-2326) to obtain the precise coordinates for avoidance areas if needed. Any new sites would be identified and adequately marked in the field for assessment by the USACE staff, and any known sites in the removal or placement footprint will be marked for avoidance prior to dredging.

#### NEW DISCOVERIES

If new and unanticipated Historic Properties are inadvertently discovered during implementation of the Undertaking, the Mobile District will cease all work in the vicinity of the discovery until it can be evaluated. If the property is determined to be NRHP eligible, the Corps shall consult with the SHPO, Federally Recognized Tribes, and other interested parties to develop a treatment plan according to Stipulation lv (Historic Properties Treatment Plan).

9. PROTECTION OF LAND RESOURCES: The environmental resources within the project boundaries and those outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine his activities to areas defined by the drawings and specifications. The Contractor shall perform a preconstruction survey, which includes but is not limited to photographs, and provide this to the Contracting Officer prior to dredging and placement activities.

a) It is intended that the land resources outside the limits of permanent work performed under this contract be preserved in their present condition or be restored to natural conditions, after completion of dredging and placement activities.

b) The Contractor shall be required to maintain all work areas within or outside of the project boundaries free from dust that would cause a hazard or nuisance to others.

c) The Contractor shall obliterate all signs of temporary support facilities, such as haul roads, work areas, structures, foundations of temporary structures, or any other vestiges of activities as directed by the Contracting Officer.

d) Solid wastes (excluding clearing debris) include any waste generated by the Contractor which meets the most complete definition of solid waste as described by Federal, state and local laws and regulations. Solid waste shall be placed in containers that are emptied

on a regular schedule. All handling and placement shall be conducted to prevent spillage and contamination.

e) Hazardous waste shall be stored, removed from the work area and disposed of in accordance with Federal, state and local laws and regulations.

f) The Contractor shall use drainage ditches, low ground pressure equipment, matting, geogrids, and/or other types of soil reinforcement in some areas to enable vehicle traffic and other activity.

10. PROTECTION OF FISH AND WILDLIFE: The Contractor shall at all times perform all work and take such steps required to prevent any significant interference or disturbance (as determined by the Contracting Officer) to fish and wildlife.

a) The Contractor will not be permitted to alter water flows or otherwise disturb native habitats adjacent to the project area, which, in the opinion of the Contracting Officer, are critical to fish or wildlife. Fouling or polluting of water will not be permitted.

b) Wastewater shall be processed, filtered, ponded, or otherwise treated, if applicable, prior to their release from project area into waterways.

c) If applicable, the removed material placement operation return water shall not impact any areas of seagrasses, shellfish beds, or wetland areas.

d) The Contractor must perform all work within the compliance specifications of the Alabama Coastal Program to the maximum extent practicable.

e) Maintenance and New Work dredging of Mobile Harbor Federal navigation project is restricted to dimensions designated in this contract and placement of material in approved placement sites only.

f) The Contractor shall take all necessary precautions to ensure that maintenance and new work dredging activities do not adversely impact any listed threatened and/or endangered species protected under the Endangered Species Act.

g) The Contractor shall take all necessary precautions to ensure that activities conducted during the course of this project do not adversely impact listed threatened and endangered species or their critical habitats. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, sea turtles, and the Gulf sturgeon in the area, and the need to avoid collisions with and harming these animals. The Contractor shall further instruct all personnel that the area is designated as Gulf sturgeon

critical habitat. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, sea turtles, Gulf sturgeon, dolphins or whales; or destroying or adversely modifying critical habitat of these species which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. The Contractor must take special precautions to ensure adequate protection for wildlife resources.

- (1) If a collision occurs or a dead manatee, sea turtle or Gulf sturgeon is observed, a Stranding Report form should be completed and filed with NOAA. A copy of the form can be found at the Sea turtle stranding and salvage network (STSSN) website at:

<https://www.nrc.gov/docs/ML1434/ML14345A279.pdf>

- (2) *Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Daphne (251-441-5181).* Please also provide a copy to Mobile District Coastal Environment Office, Ms. Lekesha Reynolds at: [Lekesha.W.Reynolds@usace.army.mil](mailto:Lekesha.W.Reynolds@usace.army.mil)

h) When using cutterhead dredging equipment, to minimize the potential of intercepting sea turtles/Gulf sturgeon, every effort shall be made to minimize pump operation while the dragheads/cutterheads are suspended in the water column including but not limited to the following:

- (1) When initiating dredging, suction through the dragheads/cutterhead shall be allowed just long enough to prime the pumps. Then the dragheads/cutterheads must be placed firmly on the bottom.
- (2) When lifting the dragheads/cutterhead from the bottom, suction through the dragheads/cutterheads shall be allowed just long enough to clear the lines, then must cease.
- (3) Pumping water through the dragheads/cutterhead shall cease while maneuvering or during travel to/from the placement area.
- (4) Raising the dragheads/cutterheads off the bottom to increase suction velocities is not acceptable.
- (5) During turning and repositioning operations the pumps must either be shut off or reduced in speed to the point where no suction velocity or vacuum exists.

i) **PROTECTION OF MANATEES:** Where manatees are known to occur and/or at required navigation channel designated by U.S. Fish and Wildlife Service, as stated in the Manatee Protection Guidelines 10(a) below and in Appendix A, in order to ensure that manatees are not adversely affected by the dredging activities authorized by this contract, the Contractor utilize the State and/or USFWS Standard Manatee Construction Conditions.

(1) Manatee Precautions - The manatee is an endangered mammal protected by Federal and State Laws. The Contractor shall observe the

following precautions and other manatee precautions as stipulated by the regulatory agencies for the project:

- (a.) The contractor shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatees.
- (b.) The contractor shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
- (c.) Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to, or exit from, essential habitat.
- (d.) All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- (e.) If manatees are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure their protection. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.
- (f.) Temporary signs concerning the manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the lessee/grantee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8',6" by 11" which reads *Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Daphne (251-441-5181).*

11. PROTECTION OF AIR RESOURCES: All fuel-burning equipment shall be properly maintained to prevent violations of State or Federal Air Pollution Standards or interference with inhabitants of the area by causing drastic changes in their accustomed environment. If burning is required, the Contractor should obtain a burn permit from the local fire department, if necessary. Daily inspections will be made of all fuel-burning equipment. Immediate corrective action shall be taken if exhaust emissions are found to be excessive.

12. MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING DREDGING AND PLACEMENT ACTIVITIES: During the life of this contract, the Contractor shall

maintain all facilities constructed for pollution control 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. During the construction period the Contractor should conduct frequent training courses for his maintenance personnel. The curricula should include methods of detection of pollution, familiarity with pollution standards and measures for prevention or mitigation of environmental pollution.

13. SANITATION: The Contractor must provide suitable sanitation devices for the proper storage of all sanitary sewage. The Contractor shall ensure that all floating plants operate according to an approved waste management plan as required by 33 CFR Part 151. The dumping of sanitary sewage effluent and/or solids into the navigable waters surrounding the job is strictly prohibited.

14. PAYMENT: No separate payment will be made for work covered under this section and all costs in connection therewith will be considered a subsidiary obligation of the Contractor and covered under the contract unit and/or lump-sum prices in the Bidding Schedule.

MOBILE HARBOR, ALABAMA, DEEPENING AND WIDENING - PHASE 1  
MOBILE, ALABAMA

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ENVIRONMENTAL PROTECTION (HOPPER DREDGE)  
09/08

PART 1 GENERAL

1.1 APPLICABLE REGULATIONS

The Contractor and their subcontractors in the performance of this contract, shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, all applicable provisions of the Corps of Engineers Manual, EM 385-1-1, entitled "Safety and Health Requirements", in effect on the date of solicitation, and the specific requirements stated elsewhere in the contract specifications.

1.2 SCOPE

The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution during the dredging activities for the Mobile Harbor project, except for those measures set forth in other Technical Provisions of these specifications. For the purpose of this specification, environmental pollution is defined as: a) the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; b) unfavorably alter ecological balances; c) affect other species of designated importance of man; or d) degrade the utility of the environment for aesthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise control, solid waste management, as well as control of other pollutants.

1.3 SUBCONTRACTORS

The Contractor and their subcontractors shall comply with all requirements under the terms and conditions set out in the permits or certifications issued by the Alabama Department of Environmental Management (ADEM) and in compliance with the provisions of the Contract and applicable Federal, state, and local environmental laws and regulations. Compliance with the provisions of this section by subcontractors shall be the responsibility of the Contractor.

- a. The Contractor shall submit an Environmental Protection Plan, in accordance with provisions as specified.

b. The Contractor shall record on daily reports any problems in complying with laws, regulations and ordinances, and corrective action taken.

c. The Contractor shall prepare a listing of resources needing protection (i.e., upland vegetation, wetlands, oyster reefs, submerged aquatic vegetation, air quality, noise levels, surface and groundwater quality, fish and wildlife, historical, archeological, and cultural resources) within authorized work areas.

d. The Contractor shall prepare a pollution prevention plan that identifies all potentially hazardous substances on the job site and the intended actions to be taken to prevent the accidental or intentional introduction of such materials into the air, the water or the ground.

e. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures identified in the environmental protection plan.

f. The Contractor shall keep dredging and placement activities under surveillance and shall exercise all necessary controls to minimize damage to the environment by noise from equipment and various activities. Areas that have noise levels greater than 85-dB continuously or 140-dB peak (unweighted) impulse must be designated as noise hazardous areas. These work areas must have caution signs displayed at the perimeter of the noise area indicating the presence of hazardous noise levels and requiring the use of hearing protection devices.

g. The Contractor shall detail special provisions taken to meet Federal, state, and local laws and regulations regarding the storage and handling of solid and hazardous waste materials.

#### 1.4 PAYMENT

No separate payment will be made for work covered under this section and all costs in connection therewith will be considered a subsidiary obligation of the Contractor and covered under the contract unit and/or lump sum prices in the Bidding Schedule.

#### 1.5 ENVIRONMENTAL PROTECTION PLAN

Prior to commencement of the work, the Contractor shall, after receipt of Notice of Award of the Contract and at least 7 days prior to the Preconstruction Conference, submit in writing the above Environmental Protection Plan, and shall meet with representative(s) of the Contracting Office to develop mutual

understanding relative to compliance with this provision and administration of the environmental protection program.

#### 1.6 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State, or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

#### PART 2 PRODUCTS (NOT USED)

#### PART 3 EXECUTION

##### 3.1 PROTECTION OF WATER RESOURCES

The Contractor shall not pollute any water bodies including streams, lakes, bays, estuaries, or other marine or fresh waters with fuels, oils, acids, or any other harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, state, county, and municipal laws concerning water pollution. The discharge of plastics of any kind within estuarine or marine waters is strictly prohibited. All work under this contract shall also be performed in such a manner that objectionable conditions will not be created in proximity to the project areas.

a. The Contracting Officer Representative will designate the proposed areas for excavation and the location of approved placement areas. No other areas are approved for the placement or excavation of material.

b. The Contractor shall comply with all turbidity and monitoring standards and other conditions set forth in the water quality standards as specified by the Alabama Department of Environmental Management (ADEM). The Contractor will monitor turbidity (NTU's) in the work area throughout the life of the contract to ensure that the Contractor complies with the permit requirements. Turbidity measurements must be taken daily at the dredge and discharge sites and a background location to be determined by the Contractor. The turbidity monitoring report

(included in the Environmental Compliance Appendix) shall be filled out and submitted weekly to the Contracting Officer who will then forward to the Mobile District coastal Environment Staff: Ms. Lekesha Reynolds, PD-EC by email Lekesha.w.reynolds@usace.army.mil. The Contractor shall provide the name(s) and credentials of the person(s) responsible for turbidity monitoring in the Environmental Protection Plan. If turbidity at the placement site exceeds 50 NTUs above background levels outside the prescribed mixing zones, as specified in the permit, the contractor shall cease activities until corrective actions have been taken and turbidity levels have returned to within compliance levels. Should work stoppage occur, the Contractor shall immediately notify the Contracting Officer Representative.

c. Special measures shall be taken to prevent chemicals, fuels, oils, and greases at the beach placement site or along the pipeline from entering area waters, at all times.

d. Contractor shall maintain Best Management Practices (BMPs) at all times during operations to minimize turbidity at both the dredge and placement sites.

e. Discharge of any pollutant into the watercourse is strictly prohibited, except as otherwise specified or allowed in other sections of the Technical Specifications.

f. Wastewater shall be processed, filtered, ponded, or otherwise treated prior to their release from project area into waterways.

g. All dredging equipment must have approved marine sanitation devices. Staging areas must have approved onsite wastewater treatment facilities.

### 3.2 MOBILE OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS)

Placement of the dredged sediments within the ODMDS will be conducted in accordance with the conditions specified below in the Section 103 concurrence letter from U.S. Environmental Protection Agency (EPA) and the Site Management and Monitoring Plan (SMMP). Both of these documents are included in the Environmental Compliance Appendix.

#### a. Mobile Maintenance Ocean Disposal Conditions

(1) A bathymetry survey of the ODMDS release zone will be conducted within three months prior to initiation of disposal activities.

(2) A bathymetry survey of the ODMDS release zone will be conducted within thirty days of completion of disposal activities.

(3) All disposal will be initiated at least 330 feet within the boundaries of the Mobile ODMDS.

(4) The following special conditions for Dredging Units will be followed:

<b>Dredging Unit</b>	<b>Load Limit</b>
DU3	15,000
DU4A	15,000
DU4B	15,000
DU5A	15,000
DU5B *	13,500
DU6A *	13,500
DU7A	15,000
DU12	15,000

*\* Emphasis added to highlight Load Limits of 13,500 cubic yards.*

### 3.3 RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS

All items having any apparent historical or archeological interest, which are discovered in the course of any removing of material and placement activities shall be carefully preserved. The Contractor shall leave the archaeological find undisturbed and immediately report the find to the Contracting Officer Representative and the Mobile District Archeological Staff (Attn: Mr. Mike Malsom PD-EI, (251) 690-2023, Dr. Patrick O'Day, PD-EI (251) 690-2326) so the proper authorities may be notified. Existing historical, archeological and cultural resources within the Contractor's work area will be so designated by the Contracting Officer Representative. All activities associated with these resources shall be coordinated through the Mobile District Archeological Staff (Attn: Mr. Mike Malsom PD-EI, (251) 690-2023, Dr. Patrick O'Day, PD-EI (251) 690-2326).

#### NEW DISCOVERIES

If new and unanticipated Historic Properties are inadvertently discovered during implementation of the Undertaking, the Mobile District will cease all work in the vicinity of the discovery until it can be evaluated. If the property is determined to be NRHP eligible, the Corps shall consult with the SHPO, Federally Recognized Tribes, and other interested parties to develop a

treatment plan according to Stipulation lv (Historic Properties Treatment Plan).

### 3.4 PROTECTION OF LAND RESOURCES

The environmental resources within the project boundaries and those outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine their activities to areas defined by the drawings and specifications. The Contractor shall perform a preconstruction survey, which includes but is not limited to photographs, and provide this to the Contracting Officer Representative prior to dredging and placement activities.

- a. It is intended that the land resources outside the limits of permanent work completed under this contract be preserved in their present condition or be restored to natural conditions, after completion of dredging and placement activities.
- b. The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in an area approved by the Contracting Officer Representative. The Contracting Officer Representative shall approve all temporary movement or relocation of Contractor facilities.
- c. The Contractor shall be required to maintain all work areas within or without the project boundaries free from dust that would cause a hazard or nuisance to others.
- d. The Contractor shall obliterate all signs of temporary support facilities such as haul roads, work areas, structures, foundations of temporary structures, or any other vestiges of activities as directed by the Contracting Officer Representative.
- e. The Contractor shall construct or install all temporary and permanent erosion and sedimentation control features at the placement site and along the pipeline route.
- f. Solid wastes (excluding clearing debris) includes any waste generated by the Contractor which meets the most complete definition of solid waste as described by Federal, state and local laws and regulations. Solid waste shall be placed in containers that are emptied on a regular schedule. All handling and disposal shall be conducted to prevent spillage and contamination.
- g. Hazardous waste shall be stored, removed from the work area and disposed of in accordance with Federal, state and local laws and regulations.

h. The Contractor shall use drainage ditches, low ground pressure equipment, matting, geogrids, and/or other types of soil reinforcement as necessary to enable vehicle traffic and other activity.

### 3.5 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps required to prevent any significant interference or disturbance (as determined by the Contracting Officer Representative) to fish and wildlife.

a. The Contractor will not be permitted to alter water flows or otherwise disturb native habitats adjacent to the project area, which, in the opinion of the Contracting Officer Representative or their appointed representative, are critical to fish or wildlife. Fouling or polluting of water will not be permitted.

b. The Contractor must perform all work within compliance specifications of the permit issued by the Alabama Department of Environmental Management (ADEM) which is included in the Environmental Compliance Appendix.

c. Threatened and Endangered Species: The Contractor shall take all necessary precautions to ensure that activities conducted during the course of this project do not adversely impact listed threatened and endangered species. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, sea turtles, and Gulf sturgeon in the area, and the need to avoid collisions with and harming these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, sea turtles, Gulf sturgeon, dolphins or whales; or destroying or adversely modifying critical habitat of these species which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973. The Contractor must take special precautions to ensure adequate protection for wildlife resources.

(1) The Contractor shall adhere to all Federal, State, and local laws and regulations including the Gulf of Mexico Regional Biological Opinion (GRBO) (2003, as amended in 2005 and 2007).

(2) The Contractor shall coordinate all activities associated with these resources with the Coastal Environment Team, Mobile District (Attn: Ms. Lekesha

Reynolds, PD-EC at 251-690-3260, bb 251-327-8650 or Mr. Don Mroczko, PD-EC at 251-690-3185.

(3) If there are any incidents (live or dead) involving threatened or endangered species, the Contractor shall notify the Contracting Officer, Contracting Officer Representative, and the following individual(s) **within 24 hours**:

- Ms. Lekesha Reynolds 251-690-3260 (251-327-8650 (after-hours) or Ms. Jennifer Jacobson 251-690-2724, 251-472-7589 (after hours) U.S. Army Corps of Engineers, PD-EC
- "If a live turtle is recovered from the dredge it shall be immediately transported by a NMFS permitted and approved protected species Observer to the nearest sea turtle and marine mammal rehabilitation facility such as the Institute for Marine Mammal Studies (MMS), 10801 Dolphin Ln, Gulfport, MS 39503, 1-888-767-3657, or 1-228-896-9182 and email [contactus@imms.org](mailto:contactus@imms.org). Also notify the USACE, Mobile District, Chief of Coastal Environmental, PD-EC, Ms. Lekesha Reynolds, 251-690-3260, or BB 251-327-8650, Lekesha.W.Reynolds@usace.army.mil and Mr. Don Mroczko, 251-690-3185, donald.e.mroczko@usace.army.mil.

The Contracting Officer will direct the contractor as to any required shutdown procedures or necessary changes in dredge operation as to reduce the likelihood of additional incidents. The contractor shall suspend dredging immediately if:

- a. Two or more turtle incidents occur within 24 hours
- b. Two turtles incidents, of the same species, occur during dredging
- c. Four turtle incidents, regardless of species, occur during dredging
- d. One gulf sturgeon incident during dredging

d. Protection of Manatees: See "Standard Manatee Construction Conditions" in Environmental Compliance Appendix.

(1) Manatee Sighting: 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 within the waterway to ensure protection of the manatee. Construction



activities shall not resume until the manatee has departed the project area. Animals must not be herded away or harassed into leaving. If construction activity shall cease, the Contractor shall notify the Contracting Officer.

(2) 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 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. IDLE SPPED IS REQUIRED IF OPERATIING A VESSEL IN THE CONSTRUCTION AREA. ALL EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION. ALL COLLISIONS WITH AND/OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE USFWS IN DAPHNE (251-441-5181)" 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.

(3) Manatee Sighting Reports: Any collisions with a manatee, or sighting of any injured or incapacitated manatee, shall be reported immediately to the Contracting Officer or their appointed representative.

(4) Report Submission: The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. All data in original form shall be forwarded directly to the Mobile District, Planning and Environmental Division, Coastal Environment Team, P.O. Box 2288 Mobile, Alabama 36628-0001, (Attn: Mr. Don Mroczko) and the Area Engineer within 10 days of collection.

e. Protection of Sea Turtles and Gulf Sturgeon - Hopper Dredging Only: the Contractor shall implement the following conditions:

(1) Observers: The contractor shall supply NMFS-approved protected species observers to be aboard the hopper dredges to monitor the hopper dredged material, screening, and dragheads for sea turtles and Gulf sturgeon. Observer coverage shall be 100 percent (24 hr/day). During transit to and from the placement area, the observer shall monitor from the bridge during daylight hours for the presence of endangered species. During dredging operations, while

dragheads are submerged, the observer shall continuously monitor the inflow and/or overflow screening for turtles and Gulf sturgeon and/or parts of these species. Upon completion of each load cycle, dragheads should be monitored as the draghead is lifted from the sea surface and is placed on the saddle in order to assure that any sea turtle that may be impinged is not lost or un-accounted for. Observers shall physically inspect dragheads and inflow and overflow screening/boxes for threatened and endangered species takes.

(2) Operations and Dredging Endangered Species System (ODESS) Reporting System: 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 Representative according to the schedule outlined in the contract specifications. Hardware and Software requirements for the system can be found at the end of this section.

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](mailto: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) ODESS Monitoring Reports: Observers shall record the results of the threatened and endangered species monitoring 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 to 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://dgm.usace.army.mil/odess/#/download>) and later entered into the FC tool when the Observer has the best opportunity.

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. 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 their 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](mailto:ODESS@usace.army.mil), [Lekesha.W.Reynolds@usace.army.mil](mailto:Lekesha.W.Reynolds@usace.army.mil), and [Donald.e.mroczko@usace.army.mil](mailto:Donald.e.mroczko@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 via telephone, 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, 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 of the contract specification.

(3) The contractor shall provide a digital camera, with an image resolution capability of 300 dpi, in order to photographically report all incidental sea turtle and Gulf sturgeon takes during dredging operations. Immediately following an incidental take of a sea turtle or Gulf sturgeon, images shall be provided to accompany load data and incidental take forms submitted to the ODESS system. The nature of findings shall be fully described in the incidental take forms including references to photographs.

(4) Screening: Sea turtle observers are required on hopper dredges and shall provide for 100% inflow screening of dredged material; 100% overflow screening is recommended. If conditions prevent 100% inflow screening, inflow screening may be reduced gradually, as further detailed in the following paragraph, but 100% overflow screening is then required.

(5) Screen Size: The hopper's inflow screens shall have 4-inch by 4-inch screening. If the Contracting Officer Representative, in consultation with observers and the draghead operator, determines that the draghead is clogging and reducing production substantially, the screens may be modified sequentially: mesh size may be increased to 6-inch by 6-inch, then 9-inch by 9-inch, then 12-inch by 12-inch openings. Further clogging may compel removal of the screening altogether, in which case effective 100% overflow screening would be required.

The Contactor Officer Representative shall request permission before doing so by contacting Mobile District Coastal Environmental Team (Ms. Lekesha Reynolds 251-690-3260) prior to the reductions in screening. The Contactor shall provide an explanation for such reduction in the dredging report.

(6) Dredging Pumps: Standard operating procedure shall be that dredging pumps are disengaged by the operator when the dragheads are not firmly on the bottom, to prevent

impingement or entrainment of sea turtles within the water column.

(7) Sea Turtle Deflector Requirements:

(a) Sea Turtle Deflecting Draghead: A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all Gulf of Mexico channels and sand mining sites at all times of the year and shall be installed while performing hopper dredging operations under this contract. The contractor shall submit drawings showing the proposed sea turtle deflector device and its attachment to the equipment being used. Drawings submitted shall include the approach angle for any and all depths to be dredged during the dredging. A copy of the approved drawings and calculations shall be available on the vessel during the dredging.

(b) Hopper Dredge Equipment: Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors, which are rigidly attached. No dredging shall be performed by the hopper dredge without a turtle deflector device that has been approved by the Contracting Officer Representative.

(c) Deflector Design: The leading v-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle."

If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4".

(8) Training - Personnel on Hopper Dredges: The USACE may, as necessary, conduct thorough training on measures of

dredge operation that will minimize takes of sea turtles and Gulf sturgeon. It shall be the goal of each hopper dredging operation to establish operating procedures that are consistent with those that have been used successfully during hopper dredging in other regions of the coastal United States, and which have proven effective in reducing turtle/dredge interactions.

f. Sea Turtle and Gulf Sturgeon Trawling and Relocation - Trawling and relocation shall be conducted during Hopper Dredging within Mobile Bay Bar Channel unless otherwise directed by the Contracting Officer Representative. Trawling outside of the Bar Channel is not required unless there is a take. The Contractor shall implement the following Trawling and Relocation conditions:

(1) Trawling Requirements: Relocation trawling shall be conducted to remove sea turtles (with the exception of leatherback sea turtles, which shall be photographed in the trawling net and immediately released in place, see below) and Gulf sturgeon from the borrow areas during dredging to help prevent entrainment by the dredge. In addition, giant manta rays may be present in the work areas. Observers shall not handle giant manta rays or take any physical measurements. IF a giant manta ray is captured in the trawl it shall be photographed in the trawling net and immediately released in place. Trawling shall begin at least 12 hours prior to dredging. Based on the trawling results, the Government will make a decision on whether or not there is a need to continue trawling. Daily trawling results shall be sent to the USACE, Mobile District, Chief of Coastal Environmental, PD-EC, Ms. Lekesha Reynolds, Lekesha.W.Reynolds@usace.army.mil and Don Mroczko, donald.e.mroczko@usace.army.mil. Based on the trawling results, the Mobile District, Planning Division, Coastal Environmental will make a decision on whether or not there is a need to continue trawling. 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 in on Trawling Report form. The trawler shall be equipped with 60-foot nets constructed from 8-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 12 hours per day or night, as directed by the Contracting Officer or their appointed representative. The tows shall be performed in shifts, to be determined by the Contracting Officer or their appointed representative. The trawler shall be available for operation 24 hours a day. If two (2) separate trawlers are required, they shall operate

side-by-side, as much as practicable. If multiple dredges are utilized, the trawler(s) shall be used for each dredge actively performing dredging operations. If the dredging operations are coordinated so that only one (1) dredge is actively dredging, trawler(s) shall be required for only that dredge. 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 resuming dredging operations. The trawler(s) shall be positioned ahead of the hopper dredge and as close to the hopper dredge as safely possible to give maximum coverage ahead of the dredging cut. The dredge and trawler(s) shall work closely together to implement techniques and procedures that will minimize the opportunity for turtles and Gulf sturgeon to enter the dredging path between the trawler(s) and 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 between 2.5 to 3.5 knots using repetitive 15- to 30-minute (total time) trawls in the work area. Trawl tow-time duration shall not exceed 30 minutes (doors in - doors out) and trawl speeds shall not exceed 3.5 knots. Positions at the beginning and end of each tow shall be determined from the Global Positioning System (GPS) equipment. Tow speed shall be recorded at the approximate midpoint of each tow. Acceptable GPS criteria shall be in accordance with EM 1110-1-1003, paragraph 5.3 and Table 5-1. This EM 1110-1-1003 can be located at the following website:

<http://www.publications.usace.army.mil/USACEPublications/EngineerManuals.aspx> or can be purchased directly from the Government Printing Office by calling (202) 512-1800. The postal address is Superintendent of Documents, P. O. Box 371954, Pittsburgh, Pennsylvania 15250-7954 or on line at <http://bookstore.gpo.gov/>.

(2) 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 Trawling Report form. High and low tides shall be recorded.

(3) Approved Sea Turtle Trawling and Relocation Supervisor: Trawling shall be conducted under the supervision of a crewmember that possesses the required permits for handling endangered species, experienced in sea

turtle capture or is a NMFS-approved observer. A letter of approval from NMFS shall be provided to the Contracting Officer or their appointed representative prior to commencement of trawling.

(4) Repair and Replacement of Damaged Trawl Nets: The Contractor, at the time of mobilization, shall provide trawl nets, which 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 shall 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.

(5) Equipment Breakdown: The contractor shall be placed in a non-pay status when trawling equipment breakdown is such that the trawler does not operate during the day. Pay time shall resume when trawling operations recommence.

(6) Suspension of Dredging and Relocation Trawling: 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 or Gulf sturgeon are taken and subject to the discretion of the Contracting Officer.

(7) Turtle Excluder Devices: Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) on hopper dredge dragheads must be obtained from NMFS (contact Eric Hawk at 727-551-5773 or Nicole Bonine 727-824-5336). Any necessary State or Federal clearances for the capture and relocation of sea turtles shall also be obtained. Approvals shall be submitted to the Contracting Officer or their appointed representative prior to trawling.

(8) Handling During Trawling: Sea turtles and sturgeon captured pursuant to relocation trawling shall be handled in a manner designed to ensure their safety and viability, and shall be released over the side of the vessel, away from the propeller, and only after ensuring that the vessel's propeller is in the neutral, or disengaged, position (i.e., not rotating). Resuscitation guidelines are located in the Environmental Compliance Appendix. All leatherback sea turtles are to be photographed in the



trawler net and immediately released in place (are not to be relocated).

(9) Captured Turtle and Gulf Sturgeon Holding Conditions: Turtles and Gulf sturgeon may be held briefly for the collection of important scientific measurements, prior to their release. Captured turtles shall be kept moist, and shaded whenever possible, until they are released, according to the requirements below. Captured Gulf sturgeon shall be held in a suitable well-aerated seawater enclosure until they are released according to the requirements below.

(a) Take and Release Time During Trawling - Turtles: Turtles shall be kept no longer than 12 hours prior to release and shall be released not less than three (3) nautical miles (nmi) from the excavation site. If two or more released turtles are later recaptured, subsequent turtle captures shall be released not less than (5) five nautical miles away. If it can be done safely and without injuries to the turtle, turtles may be transferred onto another vessel for transport to the release area to enable the relocation trawler to keep sweeping the dredge site without interruption. Minor skin abrasions resulting from trawl capture are considered non-injurious. Injured sea turtles shall be immediately transported to the nearest sea turtle rehabilitation facility. Also notify the Coastal Environmental Team, Mobile District, Ms. Lekesha Reynolds by phone at 251-690-3260 office or by email at Lekesha.w.reynolds@usace.army.mil. Observer(s), or their appointed representative(s), shall transport injured turtles to a rehabilitation facility as soon as possible. The NOAA Fisheries-approved turtle transporters shall be used for this purpose.

Mississippi

Institute for Marine Mammal Studies (MMS)  
10801 Dolphin Ln, Gulfport, MS 39503, phone 1-888-767-3657, or 1-228-896-9182 email contactus@imms.org.

FLORIDA (partial list)

Gulf World	Florida's Gulfarium
15412 Front Beach Rd	1010 Miracle Strip Parkway
SE	
Panama City Beach, FL 32413	Ft. Walton Beach, FL
32548	
Tel. 850-234-5271	Tel. 850-243-9046

Emerald Coast Wildlife Rescue  
406 Mountain Dr  
Destin, FL 32541  
Tel. 850-/650-1880

(b) Take and Release Time During Trawling - Gulf Sturgeon: Gulf sturgeon shall be released immediately after capture, away from the dredge site, unless the trawl vessel is equipped with a suitable well-aerated seawater holding tank, container, trough or pool where a maximum of one sturgeon may be held for not longer than 30 minutes before it must be released or relocated away from the dredge site. Leatherbacks shall be photographed and then released in place.

(10) Scientific Measurements: When safely possible, all turtles (with the exception of leatherback sea turtles) shall be measured (standard carapace measurements including body depth), tagged, weighed, and a tissue sample taken prior to release. When safely possible, all Gulf sturgeon shall be measured (fork length and total length), tagged, weighed, and a tissue sample taken prior to release. Any external tags shall be noted and data recorded onto the Tagging form. Only NMFS approved protected species Observers or Observer candidates in training under the direct supervision of a NMFS-approved observer shall conduct the tagging/measuring/weighing/tissue sampling operations. All sea turtles and sturgeon shall be photographed and the photographs shall be submitted with the tagging and/or trawling reports.

(11) Turtle Flipper External Tagging: All sea turtles captured by relocation trawling shall be flipper-tagged prior to release with external tags which shall be obtained prior to the start of dredging from the University of Florida's Archie Carr Center for Sea Turtle Research. The NMFS-approved protected species observer aboard these relocation trawlers shall flipper-tag with external tags (e.g., Inconel tags) captured sea turtles. Columbus crabs or other organisms living on external sea turtle surfaces may also be sampled and removed.

(12) PIT Tagging: PIT tagging of sea turtles and Gulf sturgeon is not required if the NMFS-approved protected species observer does not have prior training or experience in said activity. However, if the observer has received prior training in PIT tagging procedures, then the observer shall PIT tag the animal prior to release (in addition to the standard external tagging):

(a) Sea turtle PIT tagging must then be performed in accordance with the protocol detailed at NMFS' Southeast Fisheries Science Center's web page: <http://www.sefsc.noaa.gov/species/turtles/observers.htm>.

(b) Gulf sturgeon PIT tagging must then be performed in accordance with the protocol detailed at the NMFS SERO PRD Web site.

(c) PIT tags used must be sterile, individually wrapped tags to prevent disease transmission. PIT tags should be 125 kHz, glass-encapsulated tags-the smallest ones made.

(13) Other Sampling Procedures: All other tagging and external or internal sampling procedures (e.g., blood letting, laparoscopies, anal and gastric lavages, mounting satellite or radio transmitters, etc.) performed on live sea turtles or live sturgeon are not permitted unless the observer holds a valid sea turtle or sturgeon research permit authorizing this activity, either as the permit holder, or as designated agent of the permit holder.

(14) Trawler Reporting: At the end of each day, a report (including details about the tow, details about the turtles/sturgeons relocated, and all required photographs in .JPG or .PDF) shall be emailed by the Contractor to USACE, Mobile District, Chief of Coastal Environmental, PD-EC, Ms. Lekesha Reynolds, [Lekesha.W.Reynolds@usace.army.mil](mailto:Lekesha.W.Reynolds@usace.army.mil) and Mr. Don Mroczko, [donald.e.mroczko@usace.army.mil](mailto:donald.e.mroczko@usace.army.mil). The results of each trawl shall be recorded on the Trawling Report. Sample forms are provided in Appendix B. Following completion of the project, an electronic copy of the trawling reports shall be forwarded to USACE, Mobile District, Chief of Coastal Environmental, PD-EC, Ms. Lekesha Reynolds, [Lekesha.W.Reynolds@usace.army.mil](mailto:Lekesha.W.Reynolds@usace.army.mil) and the CO within 10 working days of dredging completion.

g. Collateral or "Piggy Back" Research - Hopper Dredging/Trawling Relocation Only: Any sea turtle research activities proposed by the contractor, or outside parties, to be conducted in association with USACE funded actions, including endangered species monitoring, relocation trawling operations, or use of turtles acquired by these operations shall comply with the following general requirements, and any specific requirements developed by the Corps on a case-by-case basis as requests are received:

(1) The USACE shall be given at least 60 days to review and comment on any such research proposals. The point of

contact for this review is Safra Altman  
(Safra.Altman@usace.army.mil) at the Engineer Research and  
Development Center (ERDC) in Vicksburg MS.

(2) No such research shall be conducted without the  
express consent of USACE.

(3) The USACE shall be given the opportunity to review and  
comment on any potential publication or interpretation of  
resulting data prior to release. The point of contact for  
this review is Dena Dickerson at the ERDC.

(4) The party or parties conducting the research shall  
possess a valid research permit pursuant to Section 10 of  
the Endangered Species Act; and will be responsible for any  
other Federal, State or local permits or authorizations  
required, including any requirement of the National  
Environmental Policy Act (NEPA).

(5) Any injuries, including lethal takes resulting from  
sea turtle handling activity beyond USACE contract  
requirements shall be the responsibility of the researcher.

(6) Acknowledgment that the research was conducted with  
the assistance of USACE shall be included in any resulting  
publication or report, at the discretion of USACE.

(7) Research activities shall not hinder USACE contracted  
operations, nor result in any additional cost to the  
Government;

(8) Research personnel not directly employed by USACE  
contractors or subcontractors shall not board contracted  
vessels without signing an appropriate waiver of liability  
and/or other documents required by USACE.

h. PIT-Tag Scanning - Hopper Dredging/Trawling Relocation  
Only: All sea turtles (with the exception of leatherback sea  
turtles) and Gulf sturgeon captured by relocation trawling or  
hopper dredges shall be thoroughly scanned for the presence of  
PIT tags prior to release using a multi-frequency scanner  
powerful enough to read multiple frequencies (including 125  
128, 134 and 400-kHz tags) and read tags deeply embedded deep  
in muscle tissue (e.g., manufactured by Trovan, Biomark, or  
Avid). Turtles whose scans show they have been previously PIT  
tagged shall be externally flipper tagged. The data collected  
(PIT tag scan data and external tagging data) shall be  
submitted to NOAA, NMFS, Southeast Fisheries Science Center,  
Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida  
33149. All data collected shall be submitted in electronic  
format within 60 working days to Lisa.Belskis@noaa.gov; and

Sheryan.Epperly@noaa.gov. Sea turtle external flipper tag and PIT tag data generated and collected by relocation trawlers shall also be submitted to the Cooperative Marine Turtle Tagging Program (CMTTP), on the appropriate CMTTP form, at the University of Florida's Archie Carr Center for Sea Turtle Research.

Gulf sturgeon data (PIT tag scan data and external tagging data) shall be submitted within 60 days of project completion to NOAA, National Marine Fisheries Service, Protected Resources Division, 263 13th Avenue South, St. Petersburg, Florida 33701, or by fax: (727)824-5309; or by e-mail: takereport.nmfs@noaa.gov, Attn: Dr. Stephania Bolden.

i. Handling Fibropapillomatose Turtles: NMFS-approved protected species observers onboard a relocation trawler or hopper dredges are not required to handle or sample the viral fibropapillomatose tumors if they believe there is a health hazard to themselves and choose not to. When handling sea turtles infected with fibropapilloma tumors shall either: 1) clean all equipment that comes in contact with the turtle (tagging equipment, tape measures, etc.) with mild bleach solution, between the processing of each turtle or 2) maintain a separate set of sampling equipment for handling animals displaying fibropapilloma tumors or lesions.

j. Requirement and Authority to Conduct Tissue sampling for Genetic Analyses - Hopper Dredging/Trawling Relocation Only: All alive or dead sea turtles (with the exception of leatherback sea turtles) and Gulf sturgeon captured by relocation trawling or dredging shall be tissue-sampled prior to release by a NMFS-approved protected species observer.

(1) Sea turtle tissue samples shall be taken in accordance with NMFS' Southeast Fisheries Science Centers' (SEFSC) procedures for sea turtle genetic analyses (included in the Environmental Compliance Appendix). Tissue samples shall be properly stored and mailed within 60 days of completion of dredging project, to NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149.

(2) Gulf sturgeon tissue samples (i.e., fin clips or barbel clips) shall be taken in accordance with NMFS SERO's Protected Resources Division's Gulf sturgeon Tissue Sampling Protocol found at NMFS SERO PRD Website. Tissue samples shall be properly stored and mailed to SERO PRD (Attn: Dr. Stephania Bolden) within 60 days of dredging completion.

k. Equipment Lighting: During the sea turtle nesting season and emergence season May 1 to October 31, lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, COE EM 385-1-1, and OSHA requirements. Light intensity of lighting plants should be reduced to the minimum standard required by U.S. Coast Guard and/or OSHA for General Construction areas, in order not to misdirect sea turtles. Shields should be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area.

### 3.6 PROTECTION OF AIR RESOURCES

All fuel burning equipment shall be properly maintained to prevent violations of State or Federal Air Pollution Standards or interference with inhabitants of the area by causing drastic changes in their accustomed environment. If burning is required, the Contractor should obtain a burning permit from the local fire department, if necessary. Daily inspections will be made of all fuel burning equipment. Immediate corrective action shall be taken if exhaust emissions are found to be excessive.

### 3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING DREDGING AND PLACEMENT ACTIVITIES

During the life of this contract, the Contractor shall maintain all facilities constructed for pollution control 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. During the dredging period the Contractor should conduct frequent training courses for his maintenance personnel. The curricula should include methods of detection of pollution, familiarity with pollution standards and measures for prevention or mitigation of environmental pollution.

### 3.8 SANITATION

The Contractor must provide suitable sanitation devices for the proper storage of all sanitary sewage. The Contractor shall ensure that all floating plant operates according to an approved waste management plan as required by 33 CFR Part 151. The dumping of sanitary sewage effluent and/or solids into the waters surrounding the job is strictly prohibited.

SECTION 35 20 23.00 36

DREDGING  
04/04

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

The descriptions and requirements below are general in nature and are supplied to allow the Contractor to develop a unit cost for dredging within the defined boundaries. For bidding purposes, it is the intent of the Government to issue a contract for deepening the Mobile Ship Channel in accordance with the specifications and drawings included herein. The work to be performed under this contract includes furnishing of all plant, labor, materials, and equipment and the performance of all work required for the construction of project improvements at Mobile Ship Channel in accordance with the contract drawings and specifications. The work includes dredging in the Mobile Ship Channel and the satisfactory disposal of all dredged materials. Allowable overdepth dredging is also included in the contract and will be paid for at the applicable required dredging rate.

1.2 REFERENCES

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements Manual

1.3 ORDER OF WORK

The Contractor shall control the order of work and shall submit a written plan of the order of work for the approval of the Contracting Officer's Representative prior to commencement of the work. This plan shall show the Contractor's delineated area to be used for disposal of dredged material from this work within the approved limits of the ocean dredge material disposal site (ODMDS) as shown on the contract drawings. The Contractor's Order of Work plan shall also include detail of the Contractor's operational method for dredging, dredged material transportation, and disposal method of all dredged materials. The Contractor shall determine the requirements for staging and fabrication areas for dredging equipment based on his proposed operational methods. Acquisition of real estate interests in any such area and/or required permits for the particular type land use shall be the sole responsibility of the Contractor, the Government being held harmless from any liability or legality of procurement, use, or restoration. Should the Contractor employ more than one dredge unit on the project, additional work locations shall be approved by the Contracting Officer's Representative. The Contractor shall give the Contracting Officer's Representative ten (10) days written advance notice of the date he plans to modify his order of work in order that required Government actions may be started sufficiently in advance of the Contractor's operations, including the installation of baselines and other survey controls.

#### 1.4 CHARACTER OF MATERIALS

##### 1.4.1 Logs of Borings and Laboratory Data.

The boring logs and lab data for this project are located in Appendix A of this specification. Locations of borings are shown within the contract drawings. The borings represent conditions at the time of drilling operations. The Contractor shall make his own interpretation(s) of this information in determining the character of materials to be dredged. All classifications of soils, both visual and laboratory, are in accordance with the Unified Soils Classification System, sompatible with ASTM D 2487.

##### 1.4.2 Materials to Be Removed

Material to be removed under this contract (within the required dredging prisms) includes O&M material and new work, previously undredged material. Additionally, some large and small debris, not indicated on the boring logs or contract drawings, may exist within the limits of the required work. The Contractor may also find that the material to be removed contains various non-soil substances such as fibrous debris (trees, roots, stumps, etc.), metal cables, wire, rubble, etc. Records of previous dredging, consisting of cross sections, history cards and/or general data on past contract dredging, are available at the Irvington Site Office of the Mobile District, Corps of Engineers, 7861 13th Street, Irvington, AL 36544, (251) 957-6019.

#### 1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. Submittals having an "OP" designation are to be submitted to the Operations Division, of the U.S. Army Corps of Engineers, Mobile District. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

##### SD-01 Data

Instrumentation data; G|OP

Written instructions, etc., to explain data format used for instrumented dredging equipment.

Surveys; G|OP

Before- and after-dredging surveys of project excavation limits.

Disposal Area Surveys; G|OP

Before- and after-disposal surveys of disposal areas.

##### SD-13 Certificates

Manufacturer's guarantee; G|OP

Accuracy of electronic positioning system for dredging surveys.

##### SD-18 Records

Quality Control; G|OP



Documentation to record Compliance with technical requirements.

Order of Work Plan; G|OP

The Order of work plan shall include deposition plans and an electronic verification plan.

Survey Plan; G|OP

Written plan presenting the job survey effort.

Accident Prevention Program Plan; G|OP

Written plan describing the Contractor's Accident Prevention Program

Dredge Plant Instrumentation Plan; G|OP

Dredge Plant Instrumentation Format; G|OP

Current Dredging Quality Management Certification

## 1.6 NOTICES

### 1.6.1 Start Work

The Contractor shall give the Contracting Officer's Representative five (5) days written advance notice of the date he plans to begin dredging work in order that required Government actions, such as the installation of baselines and other survey controls, can be started sufficiently in advance of the Contractor's operations.

### 1.6.2 Work Hours

Should the Contractor elect to work on Sundays, holidays, or at night, advance notice of this intent shall be given the Contracting Officer's Representative within a reasonable time, specifying both the dates and hours of the proposed work. Notification is not meant to restrict the Contractor, but to allow the government time to coordinate quality assurance inspections. Adequate lighting to facilitate thorough inspection of night operations shall be provided by the Contractor at no additional cost to the Government.

## 1.7 GENERAL SAFETY REQUIREMENTS

The requirements of this paragraph shall be made part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

### 1.7.1 Accident Prevention Plan

The paragraph entitled "PRECONSTRUCTION CONFERENCE" of SECTION 01 00 00 requires an accident prevention program incorporating safety features and procedures from Engineer Manual EM 385-1-1, which are applicable to all aspects of the Contractor's dredging operations. In addition to these features, the following safety requirements shall be incorporated into the Contractor's accident prevention program.

### 1.7.2 Plant Fleeting Area

The Contractor shall designate a plant fleeting area within which all idle components of plant equipment shall be stored. The area shall be marked by "hazardous area" buoys, properly placed and marked with reflective tape to give adequate nighttime warning to mariners. In addition to these buoys, a lighted warning sign, as specified in Section 8.A. of EM 385-1-1, shall be prominently displayed on the equipment in the fleeting area. This sign shall be well lighted and have reflective borders. Multiple lengths of floating pipeline may be placed side-by-side within this fleeting area only if protected by a barge at each end, and shall not be placed in a manner so as to extend outside the barges. Floating pipeline within this fleeting area, not protected at each end by barges, may be placed in single rows and end-to-end only. The requirement for buoys and a lighted warning sign, as specified above, also applies to this configuration.

### 1.7.3 Dredge Pipeline Markings (Submerged and Floating)

Pipelines, for the purpose of critical markings, are defined as submerged and floating only. Submerged pipelines are defined as those that rest on, are positioned on, or are anchored to, the water column bottom at all times. Other pipelines are defined as floating for purposes of these markings requirements. These definitions apply whether there is dredge slurry flowing through the pipeline or not. Stored pipeline is covered elsewhere in this Section.

#### 1.7.3.1 Submerged Pipeline Markings

The location or position of the entire length of submerged pipeline shall be marked with signs, buoys, lights, or flags as required by the U.S. Coast Guard (USCG) and as approved by the Contracting Officer's Representative. Signs, buoys, and flags shall be constructed of, or coated with, reflective material that can be detected by marine radar and is easily visible when illuminated by a spotlight beam. The local USCG and U.S. Army Corps of Engineers (USACE) have agreed that the following marking elements are sufficient:

One row of signs, buoys, lights of constant yellow color and of intensity sufficient to be visible for at least one mile on a clear night, flags, or an appropriate combination of these, more or less equally spaced along the submerged pipeline length in sufficient number to define the alignment (length and course) of the pipeline.

#### 1.7.3.2 Floating Pipeline Markings

The position of the entire length of floating pipeline, both rubber and metallic, shall be marked with lights as required by the USCG and approved by the Contracting Officer's Representative. The local USCG and USACE have agreed that the following marking elements are sufficient and in accordance with 33 CFR 88.15:

a. one row of yellow lights, more or less equally spaced, which:

(1). flash 50 to 70 times per minute;

(2). are visible all around the horizon for at least 2 miles on a clear night;

(3). are not less than 1 meter nor more than 3.5 meters above the water surface;

(4). are sufficient in number to clearly show the pipeline's alignment (length and course). The lights shall be spaced not more than 10 meters apart where a pipeline crosses a navigable channel (see paragraph below for further lighting requirements of channel crossings).

b. two red lights at each end of the pipeline length, which are:

(1). visible all around the horizon for at least 2 miles on a clear night;

(2). stacked 1 meter apart in a vertical line with the lower light at the same distance above the water as the flashing yellow lights along the rest of the pipeline.

#### 1.7.4 Pipelines Crossing Navigable Channels

At navigable channel crossings, pipelines may be either of two types, submerged or floating (floating crossings are further defined as fixed and non-fixed opening types):

##### 1.7.4.1 Submerged pipeline crossings

Submerged pipeline crossings shall meet the following requirements.

a. The pipeline shall be configured in such a fashion (joints, bends, etc.) that it allows a safe passageway to usual vessel traffic with dimensions equal to or greater than the project channel dimensions (bottom width, side slopes and depth);

b. The pipeline must have two lights at each side of the safe passageway, which are:

(1). visible all around the horizon for at least 2 miles on a clear night;

(2). stacked 1 meter apart in a vertical line with the lower light not less than 1 meter nor more than 3.5 meters above the water surface; and

(3). of red color matching the standard USCG channel marking convention.

##### 1.7.4.2 Floating Pipeline Crossings

Floating pipeline crossings shall meet the following requirements:

Fixed, non-opening, drop loop crossings shall have two red lights stacked at each side of the safe passageway which meet the requirements of 1.8.4.1.b.(1)., 1.8.4.1.b.(2) and 1.8.4.1.b.(3) above, and have depth and width of the loop equal to or greater than the channel project dimensions.

Non-fixed, opening type crossings shall have two stacked red lights at each side of the to-be-presented safe passageway, which meet the criteria of 1.8.4.1.b.(1) and 1.8.4.1.b.(2) above, and

have the capability to be quickly disconnected (opened), on proper notice by approaching traffic, to allow safe vessel passage.

#### 1.7.5 Plant Inspection

All plants, in use or idle, shall be inspected at least once per shift by the Contractor inspector to assure that buoys, signs, and lights are in place and that all lights are operating properly. Daily reports by the Contractor shall identify inspection personnel and indicate the time of inspection of plant in use and in storage within the fleeting area. An adequate number of reserve batteries and lights shall be stored on the dredge(s) or on other readily accessible plant equipment at all times in order that non-functioning lights can be repaired or replaced.

#### 1.7.6 Public Awareness

The Contractor shall facilitate public awareness of potential navigation hazards presented by dredge operation and plant storage within the fleeting area by ensuring that announcement of the beginning of work is carried by local newspapers, radio and television stations, and waterway user association publications. Details provided in the announcement shall include beginning date, work schedule, work location, fleeting area location, and recommended boat operation in the vicinity of work areas. Periodic work updates and/or status announcements shall be made whenever necessary and at least on a monthly basis throughout the term of this contract. The Contractor shall provide and maintain sturdy and prominently displayed "Warning Signs" at all public boat marinas within ten (10) miles of the dredging operations and plant fleeting area. The warning signs shall be constructed as prescribed on the drawing entitled "Warning Sign" bound herein. The signs shall have red lettering and castles on a white background with a red reflective border. The information provided on the signs shall be similar to that indicated on the drawing and shall include locations of dredging operations and plant fleeting areas, as applicable. The Contractor shall be responsible for keeping the warning signs updated with appropriate information identifying all active work sites under this contract.

### 1.8 SPECIAL SAFETY REQUIREMENTS

The requirements of this paragraph shall be made part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

#### 1.8.1 General

As a part of the Accident Prevention Program submittal, the Contractor shall provide documentation of the "indoctrination" safety briefing for the particular job to be performed by each employee as referenced in Sections 01.B. of EM 385-1-1. This documentation shall include the employee's name, job title, date(s) of safety briefing, and subject(s) of each briefing. When an employee changes jobs, another "indoctrination" safety briefing for the new job shall occur, with the documentation appropriately updated. The Contractor shall ensure that every employee receives appropriate "on-the-job" safety briefings on the first day the employee returns from off-tour time, and regular safety briefings at least every seven (7) days for all on-tour employees. Applicable portions of Sections 01.B. of EM 385-1-1 are referenced. All such briefings shall be documented on the daily Contractor's Quality Control Report (QCR). The Contractor shall ensure that every supervisor located at the job site(s)

attends a "staff" safety meeting held at least monthly. The purpose of these safety meetings shall be to review, plan, and establish safety activities for this project. Applicable portions of Sections 01.B. of EM 385-1-1 are referenced. Documentation of these meetings shall include the employees' names, job titles, dates of meetings, topics covered, summary of actions, and other appropriate information. All such meeting documentation shall be furnished as an attachment to the daily Contractor's Quality Control Report within three (3) days after the meeting. The Contracting Officer's Representative shall be notified of all safety briefings and meetings, and may attend any "indoctrination" safety briefing, "on-the-job" safety briefings or "staff" safety meetings. These briefings and meetings shall be conducted throughout all phases of this contract and shall include the Contractor and subcontractors.

#### 1.8.2 Accident/Incident Investigation and Reporting

The Contractor shall designate a specific company officer as the investigating official referenced by Section 1 of EM 385-1-1. The investigation official shall attend the pre-construction conference. The investigating official's name and other pertinent information including company position, qualifications, experience, and training shall be listed in the Contractor's Accident Prevention Program when submitted for approval. All accidents and incidents shall be personally investigated by this official in accordance with the requirements of EM 385-1-1, and the requirements specified herein and at the pre-construction conference. The investigation official shall sign Block 15.c. of the ENG Form 3394 attesting to his personal participation in the accident or incident investigation process, the accident or incident cause analysis, and the accident or incident cause elimination plans anticipated or recommended. The completed, typed original of ENG Form 3394 shall be submitted to the Contracting Officer's Representative within 24 hours of the accident or Incident. All accidents and incidents shall be immediately reported to the Designated Government Representative. Accident and incident management shall be emphasized and will be further discussed at the Pre-Construction Conference.

#### 1.8.3 Critical Lift Operations with Hoisting Equipment

All hoisting equipment used on this contract shall be performance- and operation-tested in accordance with EM 385-1-1. The planning and conduct of these tests shall be documented using the CRITICAL LIFT PLAN in accordance with EM 385-1-1. These tests shall be conducted for any CRITICAL LIFT OPERATION, i.e., when any one of the following conditions exists:

- (a) Load to be lifted exceeds the original TEST LOAD (TEST LOAD or PERFORMANCE LOAD TEST is made at the beginning of the particular hoisting equipment's start-of-work on this contract).
- (b) The operator will lose sight of the load during lift operation
- (c) The lift operation requires two or more signal persons.
- (d) The rigging procedures to be used on the lift operation are considered unusual.
- (e) The operator or supervisor believes the lift operation should be considered CRITICAL.

The Contractor shall ensure that hoisting equipment operators have been proven competent prior to employment on this contract. A Resume' of each operator's competence (experience, training, etc.) shall be made part of the Contractor's Quality Control Plan referenced elsewhere in this specification. Hoisting equipment performing duty cycle activities shall undergo the critical lift operation testing procedure for each distinct type of duty cycle activity (dragline activity, clamshell activity, etc.) involved. When any of the conditions under which the original critical lift operation test was conducted for a piece of hoisting equipment changes, another critical lift operation test shall be planned, conducted and documented for that equipment. All documentation for critical lift operation tests shall become part of the permanent contract safety files. All actions specified in the paragraph entitled "General Safety Requirements" shall be part of the Contractor's Accident Prevention Program submittal. The Contractor shall provide specific details of actions proposed to fulfill these requirements.

#### 1.9 INSPECTION OF PLANT

The dredge plant shall be inspected by the Contractor and will be inspected by the Contracting Officer's representative to insure that all dredging plant required under the contract has been mobilized and is in safe working condition.

##### 1.9.1 Contractor's Obligation to Inspect

Before any mechanized equipment is placed in service, it shall be inspected and tested by the Contractor and certified to be in safe operating condition using the Safety Survey Checklist for Floating Plant and the Safety Inspection Checklist for Mobile Construction Equipment forms as prescribed by EM 385-1-1. Records of these tests and inspections shall be provided to the Government prior to Government inspection and shall be maintained at the site by the Contractor.

##### 1.9.2 Government Safety Inspection

Upon completion of mobilization, before starting work, and after the checklist forms are provided to the Government, a safety inspection will be conducted by the Government. The safety inspection will be conducted using the checklists as a guide to denote any deficiencies. Inspections performed by the Government do not relieve the Contractor of his responsibility to perform his own inspections of plant to assure a safe working environment at all times in accordance with contract specifications, EM 385-1-1 and his Accident Prevention Plan.

##### 1.9.3 Hopper Leakage Test

During the safety inspection, the dredge will be required to take on water equivalent to the hopper capacity. In order for the dredge to begin work, it must have no more than a 5% loss in a one hour period. This test may be performed again at any time during the contract when an indication of leakage exists. Should the dredge fail said test, no dredging will take place until the leakage is repaired.

##### 1.9.4 Clearance to Begin Work

Upon completion of the Government's safety inspection, a list of deficiencies, if any, will be given to the Contractor for corrective

action. If, in the opinion of the Contracting Officer's Representative, the plant is unsafe or does not meet the terms of the specifications, clearance to begin work will be withheld. In the absence of deficiencies, the plant will be released to begin work. Inspections performed by the Government do not relieve the Contractor of his responsibility to perform his own inspections of plant to assure a safe working environment at all times in accordance with contract specifications, EM 385-1-1 and his Accident Prevention Plan.

#### 1.9.5 USCG Operator's License

If Dredge (or other marine construction) Plant operation support workboat operators are moving dredge equipment, supplies, personnel, etc. in/at the immediate dredging site, i.e., from one side of the channel to the opposite side, or to/from a shore staging area located not more than approximately ½ mile from the dredge work location/operation and always within sight of the dredge operator, then the work boat operator need not be the holder of a USCG Operator's license. However, if the workboat moves equipment, personnel, supplies, etc., or proceeds "light boat", any significant distance beyond the immediate dredge work location/site, particularly over congested, busy waterways and/or out of sight of the dredge operator, an appropriate licensed operator (must possess a current USCG Operator's License) must be in control of the vessel operation. References: EM 385-1-1 Section 19 Paragraph 19.A.02 b., Volume III of the USCG Marine Safety Manual Section 24.B.3, 46 USC 8904.

#### PART 2 PRODUCTS (Not Applicable)

#### PART 3 EXECUTION

##### 3.1 DREDGING

###### 3.1.1 General

Dredging under this contract shall include removal, transportation, and satisfactory disposal of dredged materials described herein and shown on the contract drawings. Dredging limits shown on the contract drawings were determined based on surveys current during the development of these specifications. The following web site links contain files of the most recent hydrographic surveys for the channel. These surveys and data are provided for information only and may not reflect the current conditions.

Mobile Ship Channel

<https://www.arcgis.com/apps/opsdashboard/index.html#/4b8f2ba307684cf597617bf1b6d2f85d>

###### 3.1.2 Required Dredging

The contract prices shall include the cost of performing the work described below and shown on the contract drawings. Required dredging under this contract includes all material lying within the designated side slopes of one foot vertical to seven feet horizontal (1V to 7H) originating at the plane of elevation -54 feet MLLW from Station 2075+00 to Station 2189+58.71, at the widths shown on the contract drawings.

###### 3.1.2.1 Side Slope Excavation

Side slope material will be required to be removed when designated as such. Material that is actually removed, within the required dredging

limits to provide for final side slopes no flatter than as designated, but not in excess of the amount originally lying above this required dredging limiting side slope, will be estimated and paid for (as applicable), whether dredged in the original position or by dredging "storage space" below the required side slope plane, at the bottom of the slope, for upslope material capable of falling into the cut. This "storage space", excavated in anticipation of upslope face material falling thereinto, is not subject to the above depth and width overdredging restrictions (if applicable), as long as it is reasonable. The Contractor should refer to the typical section included in the contract drawings for the required dredging, allowable overdepth, and allowable maintenance limits.

### 3.1.3 Allowable Overdepth

To accommodate the imprecision of the dredging process, material removed from within the Mobile Ship Channel alignment limits to a depth of 2 feet below the depth of required dredging will be estimated and paid for at the contract unit price for new work dredging. Side slopes for allowable overdepth will be 1V:0H. The Contractor shall not exceed 2 feet of allowable overdepth dredging.

### 3.1.4 End Slope and Transition Slope Dredging

End slopes and transition slopes will not be estimated or paid for. In such locations, a vertical (1V:0H) slope will be used for measurement and payment, with no allowance for materials removed outside the required channel prism.

### 3.1.5 Dredge Material Overflow

Overflow will be limited to forty-five minutes per load unless otherwise approved by the COR. This slurry shall not overflow transport vessel sidewalls nor shall it be dumped (or pumped) from the vessel except when placed directly at an authorized disposal area. Mechanical dredge bucket dripping occurring between the excavation point and deposition into dump scows will not be considered overflow.

### 3.1.6 Excessive Dredging

Material removed from beyond the dredging limits shown on the contract drawings shall be considered excessive dredging for which payment will not be made. Payment will be made for removal of shoals performed in accordance with the applicable provisions of the Additional Special Contract Requirements paragraph entitled "FINAL EXAMINATION AND ACCEPTANCE".

## 3.2 DISPOSAL OF DREDGED MATERIALS

### 3.2.1 General Requirements

All excavated material shall be transported to, and disposed of, in the proper disposal areas as described below. The Contractor shall develop disposal procedures based on these requirements. Costs associated with the requirements of disposal of dredge materials shall be included in the Bidding Schedule unit prices for dredging.

### 3.2.2 Deposition Plan

A deposition plan, based on the requirements and limitations specified



hereinafter, shall be submitted by the Contractor (as a part of the requirements in the paragraph entitled "ORDER OF WORK") to the Contracting Officer's Representative for approval prior to disposal of any dredged material under this contract. The Contractor shall delineate within the approved limits of the ODMDS, as shown on the contract drawings all areas to be used for disposal of dredged material from this work. The Contractor's deposition plan shall include location and methods of disposal of all dredged material from this contract. The Contractor's disposal plan shall be completely explanatory and shall include all assumptions, statements of fact, computations, and a narrative to fully explain the procedures to be followed during the contract in compliance with the specified method of disposal of dredged material. The Contractor's deposition plan shall address each different disposal situation and include any required monitoring, preparation, or operation and maintenance actions involved. Bids received will be based on using the disposal areas described below.

### 3.2.3 Plant Equipment Layout

The Contractor shall be responsible for selection of a method of construction and/or plant equipment layout that will not cause a hazard to existing navigation nor unduly restrict marine traffic, particularly in the marked navigation channels and the adjacent private docking/mooring fairways.

### 3.2.4 Dredge Material Disposal Areas

The Contractor shall delineate within the limits of the ODMDS as shown on the contract drawing sheet CN-105 all areas to be used for disposal of dredged material from this work. The Contractor shall ensure deposition is within the limits of the ODMDS and the Contracting Officer's approved delineated disposal boundary. Disposal shall occur no less than 330 feet inside the site boundaries of the ODMDS as shown on the contract drawings. Dredged material shall be placed so that at no point will depths less than -30 feet mean lower low water (MLLW) occur (i.e., a clearance of 30 feet above the bottom will be maintained).

### 3.2.5 Misplaced Dredged Materials

Any dredged materials deposited at locations or elevations other than those designated or approved by the Contracting Officer's Representative shall be considered misplaced material and shall not be paid for until the Contractor, at his expense, removes and redeposits such misplaced material where directed. Misplaced material will be quantified by volumes calculated from hydrograph surveys and/or DQM measurements. Required removal and redeposit of the misplaced material and any necessary disposal site restoration work shall not be the basis for a time extension or additional compensation under this contract. The Contracting Officer may elect to waive the removal and replacement of misplaced material. If so, material dumped outside the limits of the disposal area will not be eligible for payment.

### 3.2.6 Disposal of Debris and Obstructions

Debris, such as stumps, roots, logs, and any other objects except archeological or historical resources unearthed during dredging operations shall be removed, transported, and satisfactorily disposed of within an upland off-site disposal area secured by the Contractor. Archeological and historical resources shall be addressed as specified in Environmental

Protection Paragraph entitled "RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS". Removal and disposal of debris and obstructions shall not be measured separately for payment but shall be considered subsidiary to dredging. Removed debris may be temporarily stored until the upland off-site disposal area has been secured by the Contractor. Debris disposal areas shall be approved by the Contracting Officer's Representative prior to use by the Contractor. All costs associated with the required disposal of debris shall be included in the contract unit price for dredging in the Bidding Schedule.

### 3.2.7 Disposal Operation Verification

#### 3.2.7.1 General

For the transport and deposition of dredged materials, the Contractor shall operate under the requirements of SECTION 35 20 23.13, NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SCOW - ULLAGE PROFILE, SECTION 35 20 23.23, NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM HOPPER DREDGE, and SECTION 35 20 23.33, NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM PIPELINE HYDRAULIC DREDGE.

### 3.2.8 Turbidity Monitoring

The contractor shall monitor turbidity in the work area throughout the life of the contract to ensure the Contractor complies with permit requirements. Turbidity shall be taken once daily, beginning at least two hours after dredging begins during daylight dredging and disposal activities. The Contractor shall utilize a turbidity meter equivalent to the HACH 2100 Portable Turbidimeter for this purpose. Suspension of work resulting from this monitoring shall not be a basis for increase of the contract price or contract duration.

### 3.3 REPORTING REQUIREMENTS

The Contractor shall prepare and submit a Report of Operations and a Contractor's Quality Control (CQC) Report daily. The Contractor may develop his own report formats provided that they incorporate the basic information contained on available Government standard forms ENG No. 4267 and/or 27a and SAM Form 696. The Contractor reports shall be prepared for all dredging work activities. A sample of each form for recording the required information is bound herein. In addition to the two daily dredging reports required, the Contractor shall submit a monthly report of operations covering each month or partial month's work on the ENG No. 4267 and/or 27a. The monthly reports shall be submitted to the Contracting Officer's Representative on or before the seventh (7th) day of each month, consolidating the previous month's work. Upon completion of the contract, the Contractor shall submit a consolidated job report, combining the monthly reports. These reports shall be submitted in duplicate, the original and one copy. The Contractor shall complete a narrative completion report combining all reports (696's, 4267's, etc.). The report shall be maintained throughout the life of the project. A draft shall be submitted bi-monthly, with the final narrative completion report being submitted at the end of the contract. The draft and final versions shall be submitted in electronic and hardcopy forms.

#### 3.3.1 Contractor Construction Quality (CCQ) Management

The CCQ System Manager and designated alternates shall have completed the instruction course entitled "Construction Quality Management for

Contractors". This course is offered periodically throughout the year at various COE Districts. Upon successful completion of this course, a training certificate, with an expiration date five years from issue, will be awarded to participants. This certification shall be obtained not later than 60 calendar days after the issuance of Notice to Proceed. All costs associated with acquisition of this certification shall be borne by the Contractor.

### 3.4 DREDGING SURVEYS

#### 3.4.1 General

The Government will furnish survey and dredging layout data for each dredging area tangent prior to any dredging. The data will be discussed at the pre-construction conference.

#### 3.4.2 Survey Plan

The Contractor shall prepare and submit for approval of the Contracting Officer's Representative, a written survey plan, presenting the project survey effort from start to completion. The plan shall cover, as a minimum, layout work including baseline control, progress surveys, and monitoring surveys. The plan shall include details of all equipment used for surveying as well as a step by step process of survey efforts. This plan shall coincide with the order of work plan required by the paragraph entitled "Order of Work." The Contractor's survey plan shall show a percentage breakdown of each type of survey phase (baseline control, progress surveys, etc.) of the total survey effort for the project.

#### 3.4.3 Layout of Work

All surveys for baselines, hydrographic survey ranges, cutting ranges, and other necessary survey work shall be performed by standard survey methods as referenced in the paragraph entitled "Soundings." All baselines and markers, whether land or water based, shall be related to existing land based survey markers using coordinate positions furnished by the Government. All such survey work shall be clearly and completely recorded in standard bound field books, and shall be made available for inspection and verification by representatives of the Government. Upon or before completion of the requirements of this contract, the field books and computations shall become the property of the Government. The Contractor shall furnish all electronic positioning and surveying equipment, stakes, poles, flagging, field books, compact discs, and other survey materials and engineering work required for the layouts. Costs associated with the required layout of work and positioning surveys, and all data compilation and computations shall be included in the Bidding Schedule contract unit price for dredging.

#### 3.4.4 Electronic Positioning

While making required surveys, the Contractor shall use an electronic horizontal positioning system (see Section 01 00 00 paragraph entitled "Datum and Bench Marks"). The positioning system shall be range/range, range/azimuth, GPS, GDPS, etc., with manufacturer's guarantee of positional error not greater than 3 meters at any time after calibration.

#### 3.4.5 Quality Control

The Contractor shall establish and maintain a quality control plan for

surveying operations to assure compliance with contractual requirements. The Contractor shall maintain records of quality control qualifications for survey personnel. These records shall include, but not be limited to, the following requirements:

(a) Survey work shall be performed in accordance with the Manual of Survey Instructions, copies of which are available for review at the Corps of Engineers Mobile District Office. At least one responsible member of the Contractor's survey group shall have a valid and current land surveyors registration (any state), or be an ACSM Certified Hydrographer. Names and résumés of registered surveyors shall be included in the Contractor's quality control plan. Sole responsibility for accuracy, completeness, and verification of all survey work performed during execution of this contract, with the exception of the initial and final quantity surveys performed by the Government, shall rest with the Contractor.

(b) Daily reports shall be submitted by the Contractor for days when surveying activity is required. The reports shall be prepared and signed by the Contractor's authorized representative. Report submittal to the Contracting Officer's Representative shall be on the duty day following the surveying activity. The reports shall include, but not be limited to, the following: equipment used; location, description, and type of work performed; inspection(s) of work; verbal instructions received and action(s) taken; safety procedures; and cause(s) of delays. All daily reports shall be prepared on SAM Form No. 696 (copy attached hereto).

(c) The Contractor shall be responsible for protection of all vegetation and property within surveying areas. Should any portion of the survey work area require tree trimming or cutting, or use of private property or facilities for any purpose, the Contractor shall obtain specific written consent from the affected property owner(s) prior to commencing any survey work within that area. The Contractor shall save and hold harmless the Government from any liability in connection with required survey activities.

(d) All survey work shall be subject to periodic inspection and verification by the Government, both during and after completion of such work. Should any portion of the surveys be found in error, it shall be the responsibility of the Contractor to correct such error at no cost to the Government. In the event that dredging operations have proceeded based on erroneous survey information, any necessary redredging shall be done at the Contractor's expense. The Contractor should perform verification calculations and calibrations of the survey data furnished by the Government prior to using that data for dredging purposes. All verification and calibration calculations shall be the sole responsibility of the Contractor. Presence of the Government representative at the work site shall not relieve the Contractor of responsibility for providing quality control of the required survey work and shall not relieve the Contractor from the responsibility of taking necessary corrective action should errors be discovered that necessitate redredging. The final determination of acceptable and unacceptable dredged channel sections will be made by the Contracting Officer's Representative.

#### 3.4.5.1 Surveys For Disposal Areas

The Contractor shall perform before- and after-disposal hydrographic

condition surveys along repeatable ranges covering the portion of the disposal area to be used for this contract and adjacent bottom within the limits specified herein. The required before and after condition surveys shall be referenced to MLLW. Before- surveys shall be performed within 15 days prior to commencement of disposal operations; the after-, within 5 days of completion of disposal operations at the disposal area. The surveys shall be oriented with ranges (cross sections) spaced two hundred (200) feet apart and extending two hundred (200) feet beyond the approved disposal area limits for this contract. Surveys for open water disposal areas or monitoring areas, baselines, hydroranges, cutting ranges and all other necessary surveys shall be performed by standard survey methods as referenced in subparagraph (a) of the paragraph entitled "Quality Control" in this specification section. Depths shall be recorded at 25-foot intervals or less, to a vertical accuracy of 0.5 foot or less. The tide shall be observed and recorded at the beginning and end of surveys and each half hour during surveys. Tide elevations shall be read and recorded to the nearest 0.1 foot. All baselines and all markers, whether land or water based, shall be referenced to existing land based survey markers using channel centerline coordinates furnished by the Government. All poles, stakes, flagging, books, compact discs, and/or other survey materials shall be furnished by the Contractor. The Contractor shall submit the survey data in "raw" hardcopy form (fathometer charts, books, scrolls, etc.), plotted form, and in digital form on compact discs within five (5) working days of completion of the surveys. The data furnished on compact discs shall include Microstation CADD drawing files from which hardcopy drawing plots were made. These books and/or compact discs shall, upon or before completion of the requirements of this contract, become the property of the Government. All costs associated with the required surveys and data compilation shall be included in the unit price for dredging.

### 3.5 SOUNDINGS

Soundings for the original and final surveys for the dredged areas as required by the paragraphs entitled "DISPOSAL OF DREDGED MATERIAL" and "DREDGING SURVEYS" in this specification section shall be made by an electronic sounding device. The electronic sounding device shall be similar and equal to the Teledyne Odom Echotrac MKIII echo sounder fathometer depth recorder. All before- and post-dredging quantity computations will be based on high frequency surveys, unless otherwise directed by the Contracting Officer Representative. Automated hydrographic survey data acquired by the Contractor shall be furnished to the Government on compact discs in the form of CADD drawing files in Microstation format. Costs associated with the required soundings and data compilation will be included in the unit price for dredging.

#### 3.5.1 Sounding Equipment

The sounding equipment will consist of a sounding machine/device capable of providing updated soundings on no more than 1/20 second intervals and have an accuracy rating of not less than +/-0.5 feet. Sounding device will have analog charting (real time) within the device and will have all the capabilities of calibrating to a bar check utilizing the Norfolk Method of bar checking. All depths acquired will consist of dual frequency soundings utilizing a high operating 208 Khz frequency transducer and a low operating 41 Khz or 24 Khz frequency transducer. The high frequency soundings will be shown in conjunction with the 41 kHz soundings on the analog chart of the sounding device. All soundings will be acquired on a continuous basis with plotting of data based on the scale

and size of the plot and in clearly legible print.

### 3.5.2 Acquired and Processed Data

The survey system employed shall use a computer and software capable of handling all required data points and the plotting of those points. If the Contractor is utilizing HYPACK to perform required surveys, the Contractor shall submit the HYPACK project files for the specific survey performed. These files contain all the files that make up the survey, including raw and edited line, log, and tide files associated with each survey, among others. Otherwise, the Contractor shall utilize a system capable of acquiring or converting all unedited raw data (horizontal and vertical) to an IBM ASCII-compatible format prior to submittal to the Government. The ASCII format shall be compatible with the MS DOS Operation system. Sounding files shall contain single line records. Each record shall contain the easting, northing, elevation, date, and time for one sounding. Items in each record shall be separated by space characters (ASCII 32 (10)) and records shall be terminated by a line feed with carriage return. Sounding files shall be no greater than 1.2 MB in size and shall contain the data for no more than 99 section lines. All records shall conform to the format below:

East	North	Elevation	Date	Time
123456.78	876543.21	-42.3	01/15/91	14:22:13.3

The survey system shall provide a means of plotting all data points for submittal in hard copy form according to the requirements listed herein. Routine/verification surveys shall be submitted within 24 hours of the survey and larger surveys shall be submitted within 48 hours of the survey. All plots shall be submitted on full size 22" x 34" (ANSI 'D' size) plot paper or half size, 11" x 17" if approved by the Contracting Officer's Representative, and shall include not less than the following: all navigation aids; a north arrow; station data (corrected to MLLW); date of survey; grid ticks; surveyor's name; vessel name; channel lines and any other pertinent information. The scale of plan view plots shall be 1" = 200' and of cross-sectional plots as specified by the Contracting Officer's Representative. Plan view plots shall delineate actual vessel track along the route taken and display depths acquired along the route at a clearly legible text size. Cross-section plots shall display the channel dimensions in a template format. Data files shall be provided on compact discs in the format previously specified and in unedited form. All hard copy submittals shall consist of edited data with all supporting field notes and scrolls. The Contractor's proposed digital data shall be submitted at the Preconstruction Conference for approval by the Contracting Officer's Representative.

### 3.5.3 Compilation of Processed Data

A compilation of all digital data (surveys, dredge electronic tracking, etc.) collected over the life of the contract by the Contractor shall be consolidated on a CD, or multiple CD's if necessary, indexed in orderly fashion, e.g. type survey (D/A, channel, etc.), such that the overall data collection effort can be easily followed. The Contractor's proposed digital data CD indexing structure shall be submitted at the Preconstruction Conference for approval by the Contracting Officer's Representative. The Contractor shall submit the compiled digital data CD(s) at the completion of the contract.

### 3.6 NAVIGATION AIDS

If necessary, navigation aids located within or near the areas required to be dredged will be removed by the USCG in advance of dredging operations. The Contractor shall notify the USCG in writing at least twenty-one (21) days in advance of the date(s) dredging adjacent to the affected navigation aids is planned.

-- End of Section --

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SECTION 35 20 23.13

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM  
SCOW - ULLAGE PROFILE

22 June 2020

PART 1 GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the National Dredging Quality Management Program (DQM) to monitor the scow's status at all times during the contract and to manage data history. For the purpose of these specifications, a scow is defined as any non-self-propelled vessel used to transport dredged material. This includes, but is not limited to, split-hull scows, pocket scows, hopper barges, and deck barges.

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 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "SUBMITTAL PROCEDURES":

SD-07 Certificates

- Letter of National Dredging Quality Management Program Certification; G, *SAM-OP-GW*

1.3 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 will be considered a subsidiary obligation of the Contractor and covered under the contract unit price for dredging in the bidding schedule.

1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor is required to have a current certification from DQM for the scow 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 onsite quality assurance (QA) checks conducted by the DQM Support Center Data Acquisition and Analysis Team and by periodic review of the transmitted data. If a system is installed specifically for this contract, in order to ensure that it is capable of transmitting quality data to the DQM database, the QA checks should take place either prior to the start of the contract or, with prior approval of the local USACE District, as soon as practical

after dredging commences. DQM Certification is valid for one year from the date of certification and is contingent upon the system's ability to meet the performance requirements as outlined in Paragraph 3.3, "Performance Requirements." 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 QA checks as outlined on the DQM website  
(<https://dqm.usace.army.mil/Certifications/Index.aspx>)

Verification of data acquisition and transfer as described in  
Paragraph 3.3, "Performance Requirements"

Review of the Dredge Plant Instrumentation Plan (DPIP) as described in  
Paragraph 1.5, "Dredge Plant Instrumentation Plan (DPIP)"

The Dredging 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 Dredging 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. The Dredging Contractor shall also have on site for the QA checks a tug capable of towing the scow. As a general rule, DQM Data Acquisition and Analysis Team personnel will come with personal protective equipment (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. The Contractor shall submit a test data package to the DQM database from the system on each scow and have it accepted by the DQM Support Center prior to scow compliance checks. The Contractor shall also submit data collected during the QA Checks from the scow monitoring system to the DQM database and the Data Acquisition and Analysis Team personnel while on site. It is the Dredging 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 scow shall contact DQM at [DQM-AnnualQA@rpsgroup.com](mailto:DQM-AnnualQA@rpsgroup.com) on an annual basis, or at least three weeks prior to the proposed beginning of dredging, to schedule QA checks. This notification is meant to make the Data Acquisition and Analysis Team aware of a target date and the contract on which the plant will be used. At least one week prior to the target date, the Dredging 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 (for example, a change in scow 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 certification during this period, the system sensors or hardware should not be disconnected or

removed from the scow. If the system is powered down, calibration coefficients shall be retained.

#### 1.5 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 computed scow-specific data and how the sensor data will be transmitted to the DQM database shall 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 start of work.

A complete list of the required DPIP contents is provided on the DQM website (<https://dqm.usace.army.mil/Certifications/Index.aspx>). 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. 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 Contracting Officer's Representative (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 onsite copy of the DPIP. The log shall contain a three-year history of sensor maintenance, including the time of 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 the 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.

With the exception of position and any value calculated, reported sensor values should represent a weighted average with the highest and lowest values not included in the calculated average for the given interval. The

averaging routine used should be consistent across all event triggers. This information should be documented in the DPIP sections that say "Calculations done external to the instrumentation."

These data-reporting requirements cover the collection of electronic data on a scow through the entire dredging cycle. Disposal events can consist of both open-water disposal and offloading. Open-water disposal is the placement of material via bottom doors or split hull. Offloading is the placement of material via either hydraulic or mechanical means.

#### 3.1.1 Scow Name

Each scow shall be assigned a unique name that will remain constant from one dredging operation to the next.

#### 3.1.2 Contract Number

The USACE-assigned contract number for the project will be reported.

#### 3.1.3 Load Number

A DQM load number shall document the end of a disposal event for a given scow.

#### 3.1.4 Horizontal Positioning

Horizontal positioning shall be recorded as the geographic coordinates of the vessel as indicated by the location of the Global Positioning System (GPS) antenna. 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.

#### 3.1.5 Date and Time

The date and time shall be reported to the nearest second and referenced to Universal Time Coordinated (UTC) based on a 24-hour format: yyyy-mm-dd hh:mm:ss.

#### 3.1.6 Hull Status

Hull status is meant to reflect a condition when material could be removed or released from the scow.  
*For this contract, hull status shall register closed prior to leaving the disposal area.*

##### 3.1.6.1 Open-Water Disposal

An open split hull or open bottom door of a scow shall be indicated by reporting an "OPEN" value. A closed split hull or closed bottom door of a scow shall be indicated by reporting a "CLOSED" value. An open status shall be indicated as the bin starts to open, and a closed status shall be indicated only once the bin is fully closed. For pocket scows, the open/closed status shall correspond to the compartment which is first to open and last to close.

### 3.1.6.2 Offloading

For non-dumping scows, an "OPEN" value shall indicate that the bin is in the process of being unloaded, either by pumping or mechanical means.

### 3.1.7 Course

Scow course-over-ground (COG) shall be provided using industry-standard equipment. The Contractor shall provide scow course-over-ground (to the nearest whole degree) with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

### 3.1.8 Speed

Scow speed-over-ground shall be provided in knots using industry-standard equipment with a minimum accuracy of 1.0 knot and resolution to the nearest 0.1 knot.

### 3.1.9 Heading

Scow heading shall be provided using industry-standard equipment. The scow 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.

### 3.1.10 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 scow 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 were 0.15 and aft draft were 0.1, then the average draft would be 0.125.

### 3.1.11 Displacement

Scow displacement shall be reported in long tons, based on the most accurate method available for the scow. 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 1027\* kg/cubic meter and shall be used for an additional interpolation between the fresh and salt water tables.

### 3.1.12 Bin 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). If sensors must be offset from the centerline of the bin, they should be offset to opposite sides of the vessel. Forward ullage, aft ullage, and average ullage soundings will 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 the hopper volume, significant digits for the average ullage shall be maintained such that if the forward ullage were 0.15 and aft ullage were 0.1, then the average ullage would be 0.125. Special arrangements for pocket scows may be made in consultation with the DQM Support Center.

### 3.1.13 Bin Volume

Scow bin volume shall be reported in cubic yards based on the most accurate method available for the scow. The minimum standard of accuracy for bin volume is interpolation from the bin volume table based on the average ullage soundings.

## 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 parameters which shall be reported to the DQM database include trip number, date and time, hull status, scow course, scow speed, scow heading, draft, displacement, ullage, and bin volume. An easily accessible, permanent visual display on the scow shall show in real time the parameters collected by the system in the same units as are used for data submitted to the DQM database. In the event a reported parameter is calculated based on multiple sensors, the sensor values as used in the equation shall be able to be viewed in addition to the required parameter. 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 Telemetry

The Contractor may select any commercial satellite, cellular phone, or other data communications systems available, as long as it is capable of transmitting real-time data as well as enough additional bandwidth to clear historically queued data when a connection is reobtained. If connectivity is lost, unsent data shall be queued and transmitted upon restoration of connectivity. Delays in pushing real-time data to the DQM database should not exceed four hours. Exceptions to these requirements may be granted by the DQM Center on a case-by-case basis with consideration for contract-specific requirements, site-specific conditions, and extreme weather events.

The data transmission process from the scow to the DQM database must be automated. The data may be sent from the scow directly to the DQM database or to a shore-based system. Data transmitted to the DQM database should be raw data; any processing of the data conducted shoreside shall be done using repeatable automated software or programming routine. A description of this process shall be included in the DPIIP.

3.2.2 Data Reporting Frequency

Disposal activities shall be logged with high temporal and spatial resolution. Data shall be logged as a series of events. Each set of measurements (time, position, etc.) will be considered an event. Any required information in Paragraph 3.1, "Requirements for Reported Data," that is not an averaged variable (that is, draft and ullage) shall be collected within 1 second of the reported time. Data shall be measured with sufficient frequency by the scow system to resolve the events to the accuracy specified in the following table. Any averaged variable must be collected and computed within this sampling interval. Event types "Sailing," "Loading/Stationary," "Offloading," and "Open Water Disposal" are triggered by a time criterion; the criterion should be consistent across the "Sailing" and "Open Water Disposal" event types and should not change for the data collected on a given scow. This criterion should be documented by the Contractor in the DPIIP.

Event Type	Event Trigger Descriptions	Event Time Resolution	Event Position
Loading/Stationary	<p><b>No change in position with hull status closed</b>  An elapsed time of 1 hour since the last event.</p> <p><b>No change in position with hull status open</b>  -----NONCLOSURE-----  In the event a scow has completed an open water disposal and transited back to a holding station without closing the hull, the sampling shall be changed to once per hour.</p>	1 minute	N/A
Sailing	<p><b>Change in position with hull status closed</b>  Time from the last sample equals 1 minute.</p>	1 second	+/-10 ft
Open Water Disposal	<p><b>Hull status open</b>  A position must be recorded within 1 second of the hull status going from closed to open and again within 1 second of the hull status going from open to closed. The position shall be reported at any equal interval from 6 to 12 seconds. This interval shall always remain consistent for the dredge plant.</p>	1 second	+/-10 ft
Offloading	<p><b>Offloading material, hull status reported as open</b>  A position must be recorded within 1 minute arrival at the offload location and within one second of the material starting to be removed from scow. The time from the last sample equals 1 minute.  -----STANDBY OFFLOADING-----  In the event a scow is not being actively offloaded at the offload location for a time equal to one hour, the sampling interval shall be equal to once an hour.</p>	1 second	+/-10 ft

Example: The scow is stationary for 1 hour and 15 minutes, and then it sails to the disposal area. You should have a "Loading/Stationary" event

at time 0, time 1 hour, and time 1 hour and 15 minutes. Then, for "Sailing," within 1 second of an elapsed time of 1 minute from the 1 hour and 15 minutes event, another event occurs.

### 3.2.3 Data Transmission to the Web Service

A Simple Object Access Protocol (SOAP) web service shall be used to report sensor data to the DQM database. Data shall be transmitted as it is collected in real time and pushed to the DQM web service. If the web service is not available or returns an error message, the data shall be stored in a queue and transmitted upon re-establishment of the connection, starting with the oldest data in the queue and continuing until real-time transmission is restored. Delays in pushing real-time data to the DQM database should not exceed four hours. Exceptions to these requirements may be granted by the DQM Support Center on a case-by-case basis with consideration for contract-specific requirements, site-specific conditions, and extreme weather events.

Contact [dqm-support@usace.army.mil](mailto:dqm-support@usace.army.mil) to obtain the web service URL and the appropriate key credentials and communication protocol.

The data transmission method call takes two arguments: a string containing the plant identifier assigned by the DQM Support Center and a second string containing the JSON-formatted sensor data. The method returns the string "OK" if the data is received. If the data is not received, either the web service or the client application throws an error.

### 3.2.4 XML-Formatted Sensor Data String

Each scow event shall be passed as a string on one continuous line of data. The example below is broken up by variable for ease of reading:

```
<?xml version="1.0"?>
<SCOW_DREDGING_DATA version="2.5">
  <SCOW_NAME>AU1994</SCOW_NAME>
  <CONTRACT>W123BA-09-D-0087_RL01</CONTRACT>
  <TRIP_NUMBER>34</TRIP_NUMBER>
  <X_POSITION>-81.670632</X_POSITION>
  <Y_POSITION>41.528987</Y_POSITION>
  <DATE_TIME>2010-08-14 10:50:15</DATE_TIME>
  <SCOW_SPEED>0.0</SCOW_SPEED>
  <SCOW_COURSE>0.0</SCOW_COURSE>
  <HULL_STATUS>OPEN</HULL_STATUS>
  <SCOW_HEADING></SCOW_HEADING>
  <SCOW_FWD_DRAFT></SCOW_FWD_DRAFT>
  <SCOW_AFT_DRAFT></SCOW_AFT_DRAFT>
  <SCOW_AVG_DRAFT></SCOW_AVG_DRAFT>
  <ULLAGE_FWD></ULLAGE_FWD>
  <ULLAGE_AFT></ULLAGE_AFT>
  <ULLAGE_AVG></ULLAGE_AVG>
  <SCOW_BIN_VOLUME></SCOW_BIN_VOLUME>
  <SCOW_DISPLACEMENT></SCOW_DISPLACEMENT>
  <SCOW_LIGHTSHIP></SCOW_LIGHTSHIP>
  <SCOW_TDS></SCOW_TDS>
  <ADDITIONAL_DATA>Some more scow info, if needed</ADDITIONAL_DATA>
</SCOW_DREDGING_DATA>
```

DATE\_TIME values shall be formatted as YYYY-MM-DD HH:MM:SS, as shown above. If, for any reason, a field has no value, the enclosing XML tags



should be sent with nothing between them (for example, <DRAFT\_AFT></DRAFT\_AFT>). The web service cannot handle a "null" value or any other indicators of no value collected.

### 3.2.5 Contractor Data Backup

The Contractor shall maintain an archive of all data sent to the DQM database during the dredging contract. The Contracting Officer's Representative (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 HTML format which would have been transmitted to the DQM database. Data submission shall be via storage medium acceptable to the COR.

At the end of the dredging contact, the Contractor shall contact the DQM Support Center prior to discarding the data. The DQM Support Center will verify that all data has been received and appropriately archived before giving the Contractor discard permission. The Contractor shall record in a separate section at the end of the scow's onsite copy of the DPIIP the following information:

- Person who made the call
- Date of the call
- DQM representative who gave permission to discard

### 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 1.4, "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 values for all parameters while operating, as described within the specifications. Additionally, all hardware shall be compliant with DPIIP requirements (Paragraph 1.5, "Dredge Plant Instrumentation Plan [DPIIP]"). Quality data strings are considered to be those providing values for all parameters reported when operating according to the specification. Repairs necessary to restore data return compliance shall be made within 48 hours. Failure by the Contractor to report the required data within the specified time window for scow measurements (see Paragraph 3.2.2, "Data Reporting Frequency," and Paragraph 3.2.3, "Data Transmission to the Web Service") and failure to receive DQM certification prior to dredging will result in withholding of up to 10% of the contract progress payment per clause 52.232-5.

### 3.4 LIST OF ITEMS TO BE PROVIDED BY THE CONTRACTOR

DPIIP	Paragraph 1.5, "Dredge Plant Instrumentation Plan (DPIIP)"
DQM SYSTEM	
Sensor instrumentation	Paragraph 3.1, Requirements for Reported Data"
SCOW DATA	
Event documentation	Paragraph 3.2.2, "Data Reporting Frequency"
Data reports	Paragraph 3.2.3, "Data Transmission to the Web Service"

QA EQUIPMENT ON THE DREDGE  
Clear and accurate draft marks  
Ullage tape

-- End of Section --

SECTION 35 20 23.23

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM  
HOPPER DREDGE

22 June 2020

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 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "SUBMITTAL PROCEDURES":

- SD-07 Certificates
- Letter of National Dredging Quality Management Program Certification; G, SAM-OP-GW

1.3 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 price for dredging in the bidding schedule.

1.4 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 Paragraph 3.3, "Performance Requirements." 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 outlined on the DQM website (<https://dqm.usace.army.mil/Certifications/Index.aspx>)
- Verification of data acquisition and transfer as described in Paragraph 3.3, "Performance Requirements")
- Review of the Dredge Plant Instrumentation Plan (DPIP) as described in Paragraph 1.5, "Dredge Plant Instrumentation Plan (DPIP)"

The Dredging 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 Dredging 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 Dredging 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](mailto: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.

#### 1.5 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.

A complete list of the required DPIP contents is provided on the DQM website (<https://dqm.usace.army.mil/Certifications/Index.aspx>).

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. 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 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.

3.1.2 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 quality control process.

### 3.1.3 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 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 1027\* 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

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 0.001 g/cc with an accuracy of +/- 0.01 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

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 0.01 fps with an accuracy of +/- 0.5 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

The RPM of any pump being used to move material 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).

### 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 Paragraph 3.2.8, "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 Paragraph 3.1, "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 1.6 gigahertz (GHz)
Hard drive:	250 gigabytes (GB); internal
RAM:	4 gigabytes (GB)
Ethernet adapter:	Internal network card with an RJ-45 connector
Ports:	1 free serial port with standard 9-pin connectors; 1 free USB port
Other hardware:	Keyboard, mouse, monitor

The Contractor shall install a fully licensed copy of Windows 7 Professional Operating System or later 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.

### 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 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.

#### 3.2.4 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. If connectivity is lost, unsent data shall be queued and transmitted upon restoration of connectivity. Delays in pushing real-time data to the DQM database should not exceed four hours. Exceptions to these requirements may be granted by the DQM Support Center on a case-by-case basis with consideration for contract-specific requirements, site-specific conditions, and extreme weather events.

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.

#### 3.2.5 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.

#### 3.2.6 Data Reporting Frequency

Data shall be logged as a series of events. Each event will consist of a dataset containing dredge information as per Paragraph 3.1, "Requirements for Reported Data." Each set of measurements (time, position, etc.) will be considered an event. Any required information in Paragraph 3.1 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.

#### 3.2.7 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}
      {CONTRACT_NUMBER} string32 {/CONTRACT_NUMBER}
      {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}
    {/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}
    {CONTRACT_NUMBER}GDSNWP-11-G-0001{/CONTRACT_NUMBER}
    {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}
  {/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}
    {CONTRACT_NUMBER}GDSNWP-11-G-0001{/CONTRACT_NUMBER}
    {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}
{/HOPPER_DATA_RECORD}
{/HOPPER_DREDGING_DATA}
{cr}
{lf}
```

### 3.2.8 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 3.25, "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.

### 3.2.9 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. The DQM Support Center will verify that all data has been received and appropriately archived before giving the Contractor discard permission. 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

### 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 1.4, "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 3.2.1, "Computer Requirements"). Quality data strings are considered to be those providing values for all parameters reported when operating according to the specification. Repairs necessary to restore data return compliance shall be made within 48 hours. Failure by the Contractor to report the required data within the specified time window for dredge measurements (see Paragraph 3.2.7, "Data Reporting Frequency," and Paragraph 3.2.9, "Data Reporting") will result in withholding of up to 10% of the contract progress payment per clause 52.232-5.

### 3.4 LIST OF ITEMS TO BE PROVIDED BY THE CONTRACTOR

DPIP <https://dqm.usace.army.mil/Certifications/Index.aspx>

#### DQM System

Sensor instrumentation	Paragraph 3.1, Requirements for Reported Data"
DQM computer	Paragraph 3.2, "National Dredging Quality Management Program System Requirements"

#### Dredge Data

Event documentation	Paragraph 3.2.8, "Data Reporting"
Dredge data backups	Paragraph 3.2.9, "Contractor Data Backup"

QA Equipment on the Dredge  
Dragarm depth chain  
Ullage tape  
Refractometer  
Water sampling device

-- End of Section --

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SECTION 35 20 23.33

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM  
PIPELINE HYDRAULIC DREDGE

22 June 2020

PART 1 GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the US Army Corps of Engineers (USACE) National Dredging Quality Management Program (DQM) to monitor the dredge's status at all times during the contract and manage data history.

This performance-based specification section identifies the minimum required output as well as the precision and instrumentation requirements. The requirements may be satisfied using equipment and technical procedures selected by the Contractor.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "Submittal Procedures":

SD-07, Certificates

- Letter of National Dredging Quality Management Program Certification; G, CESAM-OP-GW

1.3 PAYMENT

No separate payment shall be made for the 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 price for dredging in the bidding schedule.

1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor is required to have a current certification from the DQM Program for the cutter/suction head hydraulic dredge instrumentation system to be used under this contract. Standard Operating Procedures (SOP) and criteria for certification are presented on the DQM website at <https://dqm.usace.army.mil>.

1.5 DREDGE PLANT INSTRUMENTATION PLAN (DPIP)

The Contractor shall have a digital copy of the Dredge Plant Instrumentation Plan (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 accurately describe the sensors used, the configuration of the system, how sensor data will be collected, how

quality control on the data will be performed, and how the sensors/data-reporting equipment will be calibrated and repaired if it fails. A description of the computed dredge-specific data and how the sensor data will be transmitted to the DQM database shall also be included. Prior to the start of work, the Contractor shall submit to the DQM Support Center any addendum or modifications made to the plan subsequent to its original submission. Requirements and a template for the DPIP are available on the DQM website at <https://dqm.usace.army.mil>.

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 also be responsible for the replacement, repair, and calibration of the sensors and other necessary data acquisition equipment needed to supply the required data.

The procedure to complete a repair shall be documented and completed as soon as practical. If repair is not possible within two business days of any sensor failure, a plan and timeline to complete the repair shall be submitted. Upon completion of a repair, replacement, installation, modification, or calibration, the Contractor shall notify the Contracting Officer's Representative (COR). The COR may request recalibration of the 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 the 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 the specified accuracies and resolutions indicated in the following subparagraphs and transmit these parameters to the DQM database. All data shall be transmitted in JSON message bundles. Each bundle can contain multiple message types. Sensor data shall be transmitted as work event messages, and data which relates to the operational state of the dredge or its sensors shall be transmitted as state event messages. (See Paragraph 3.3.3, "Parameter Transmission to the Web Service.")

3.1.1 Message Bundle Data

Every message bundle shall contain descriptive data that relates the message to a given dredge plant and date/time. The start of a message bundle shall be identified by the tag "DQM\_data".

3.1.1.1 Messages

Messages contain operational data that populates the DQM database for a dredge plant. A message shall consist of an event type and its associated data (as defined in Paragraph 3.1.1.1.3, "Dredge Events"), a date/time

stamp indicating when the event occurred or started, and a comment providing clarification or metadata about the situation. There are multiple event types, but they all fall into one of two categories - work events and state events.

#### 3.1.1.1.1 Message Time

In a work event message, message time is the date and time that the data is collected from the sensors; in a state event message, message time is the date and time that the state event begins. The message time shall be reported to the nearest second and referenced to Coordinated Universal Time (UTC) time based on a 24-hour format (YYYY-MM-DD HH:MM:SS). In order to ensure accuracy and reliability, the time stamp shall be synchronized to UTC format from an accurate, unchangeable source (for example, a GPS National Marine Electronics Association [NMEA] datastring). Message time shall be identified by the tag "msg\_time".

#### 3.1.1.1.2 Comment

Comments concerning the work event or state event messages being transmitted provide descriptive information that relates to the data. An example of a comment for work event data is information about a sensor issue; an example of a comment for state event data is a description of operations. A comment shall be identified by the introductory tag "comment", and the comment shall consist of no more than 250 characters.

#### 3.1.1.2 Dredge Events - Work Event

There are two types of dredge event messages - work event messages and state event messages. Work event messages contain data that are instantaneously collected or calculated from sensors and are logged as a series of events. Work events are triggered by a time interval change (as described in Paragraph 3.3.2.1, "Work Event Messages"). All work event messages shall be initiated by the header tag "work\_event".

##### 3.1.1.2.1 Vertical Correction

The variation of the water level from the vertical datum for the river stage or tidal gage described in the state events shall be obtained using appropriate equipment to give the water level with an accuracy of +/- 0.1 ft. Vertical correction values above project datum described in the dredging specification shall be entered with a positive sign and those below with a negative sign. The tag for vertical correction shall be "vert\_correction".

##### 3.1.1.2.2 Cutter/Suction Head Location and Movement

The X, Y, and Z components of the cutter/suction head location shall be monitored. Additional calculations made from the observed values determine the rates of movement to track the progress of the dredge.

###### 3.1.1.2.2.1 Cutter/Suction Head Horizontal Position

The forwardmost point of the cutter/suction head shall be obtained using a positioning system operating with a minimum accuracy level of 3-10 feet horizontal Circular Error Probable (CEP). It shall be reported as Latitude/Longitude WGS 84 in decimal degrees with West Longitude and South Latitude values reported as negative. Position values shall be identified by the tags "ch\_latitude" and "ch\_longitude".

#### 3.1.1.2.2.2 Cutter/Suction Invert Depth

Cutter/suction invert depth is the depth of the invert of the suction mouth relative to the surface of the water. Instrumentation shall be capable of reporting to an accuracy of +/- 0.5 foot and a resolution to the nearest 0.1 foot with no tidal adjustments. Minimum accuracies are conditional to relatively calm water. The tag "ch\_depth" shall be used to identify the cutter/suction head depth.

#### 3.1.1.2.2.3 Cutter/Suction Head Heading

The cutter/suction head heading is the angle of the centerline of the cutter/suction head and dredge ladder measured relative to true north. All headings shall be provided using industry-standard equipment. The 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. The tag "ch\_heading" shall be used to identify the cutter/suction head heading.

#### 3.1.1.2.3 Dredge Activity

Dredge activity shall be monitored using a combination of the following parameters.

##### 3.1.1.2.3.1 Slurry Velocity

A flow-metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry velocity to the nearest 0.01 fps with an accuracy of plus 0.5 fps. If the manufacturer does not specify a frequency of recalibration, calibration shall be conducted prior to the commencement of work. The slurry velocity shall be measured for the same pipeline inside diameter as that used for the slurry density measurement. The tag "slurry\_velocity" shall be associated with this value.

##### 3.1.1.2.3.2 Slurry Density

A density-metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry density to the nearest 0.01 g/cc. It is understood that the accuracy of this sensor can vary based on several factors, including the type of material, the magnitude of the cut, and the length of time since calibration. If the manufacturer does not specify a frequency of recalibration, calibration shall be conducted prior to the commencement of work. Continuous monitoring of this sensor ensures that drift and other factors inherent in the dredging process can be accounted for in monitoring dredge activity. The tag "slurry\_density" shall be associated with this value.

##### 3.1.1.2.3.3 Pump RPM

The pump rpm is the number of revolutions per minute measured for the slurry pump shaft. The shaft revolution rate (rev/min) shall be measured with the highest level of accuracy that is standard on the vessel's operational displays either at the bridge or in the engine room. This value shall be identified by the tag "rpm".

##### 3.1.1.2.3.4 Pump Vacuum

The vacuum pressure of the dredge pump(s) (inches of mercury) shall be

measured as near to the eye as practicable in the pump's suction pipe with the highest level of accuracy that is standard on the vessel's operational displays either at the leverman's controls or in the engine room. Vacuum pressure shall be identified by the tag "vacuum".

#### 3.1.1.2.3.5 Pump Outlet Pressure

The pump outlet pressure shall be measured in the discharge line on the pump side of the flap valve in terms of pounds per square inch (psi) on a gauge. Pump outlet pressure shall be identified by the tag "outlet\_psi".

#### 3.1.1.2.4 Outfall Information (Open Water/Spill Barge Disposal)

The X and Y position of the terminal end of the outfall pipe shall be monitored continuously and the position reported as part of the work event string.

##### 3.1.1.2.4.1 Discharge Horizontal Position

The horizontal position of the outfall end of the discharge pipe shall be obtained using a positioning system operating with a minimum accuracy level of 3-10 feet horizontal Circular Error Probable (CEP). It shall be reported as Latitude/Longitude WGS 84 in decimal degrees with West Longitude and South Latitude values being reported as negative. Position values shall be identified by the tags "outfall\_latitude" and "outfall\_longitude".

#### 3.1.1.3 Dredge Events - State Event

There are two types of dredge event messages - work event messages and state event messages. State event messages provide information about the current state of the dredge equipment or operations. They are created and sent only when a state changes. Since state events often cannot be collected in real time, state events are tagged with a date time stamp (referenced to Coordinated Universal Time [UTC]) that indicates when the state change happened relative to the work event message tag. This data is considered to be "true" until another state event tag of the same type is received. Each type of state event message shall be indicated by a specific header tag as enumerated in the following subparagraphs. State events can be transmitted along with work event message bundles directly by the contractor using the indicated format, or they can be entered on the "State" tab in the DQM-provided software. However, they should be sent only if the state value changes.

##### 3.1.1.3.1 Message Time

The state event time is the date and time that the event starts. The leverman's time shall be entered to the nearest second as local time and automatically converted to and reported in UTC based on a 24-hour format (YYYY-MM-DD HH:MM:SS). Message time shall be identified by the tag "msg\_time".

##### 3.1.1.3.2 Contract Event

Information concerning the contract under which dredging is being performed shall be reported at the start and completion of each contract using the header tag "contract\_event".

#### 3.1.1.3.2.1 Contract Number

The USACE-assigned contract number for the project shall be reported using the tag "contract\_number".

#### 3.1.1.3.2.2 Contract Start and End

The start and end of a contract shall be reported using the tag "event\_type" with the appropriate value of "start" or "end".

#### 3.1.1.3.3 Tide Station/River Stage Gage Event

Properties associated with the vertical correction (see Paragraph 3.1.1.1.3.1.1, "Vertical Correction") for the tide station/river stage gage shall be grouped together under the header tag "station\_event". This information shall be sent at the start of the contract and each time the dredge has moved enough to change the station being used.

#### 3.1.1.3.3.1 Station Name

The station name is a concise name defining the tide station/river stage gage begin referred to. It shall be introduced by the tag "station\_name", and it shall consist of a descriptor of no more than 25 characters.

#### 3.1.1.3.4 Length of Pipe Event

The leverman's estimate of the length of pipe downflow from the dredge pump, measured to the nearest whole foot, shall be reported under the header tag "pipe\_length\_event". This information shall be sent at the start of the contract and at the completion of each 24-hour period ending at midnight local time.

#### 3.1.1.3.4.1 Floating Pipe

The total length of floating pipe shall be reported with the tag "length\_floating".

#### 3.1.1.3.4.2 Submerged Pipe

The total length of floating pipe shall be reported with the tag "length\_submerged".

#### 3.1.1.3.4.3 Shore Pipe

The total length of shore pipe shall be reported with the tag "length\_land".

#### 3.1.1.3.5 Booster Pump Event

Information concerning the booster pumps being used shall be included under the header tag "booster\_pump\_event". A message shall be sent to indicate any change in the status of the booster pumps being used.

#### 3.1.1.3.5.1 Number of Booster Pumps

Upon the addition or removal of a booster pump, the total number of booster pumps being used shall be reported with the tag "booster\_total".

3.1.1.3.6 Dredge Advance

The dredge advance, the total forward progress of the dredge relative to the centerline of the cut, shall be measured to the nearest whole foot and cumulatively calculated over a 24-hour period from midnight to midnight local time. It shall be identified by the tag "advance\_daily". The msg\_time associated with this tag shall be reported as the first timestamp of the following 24-hour period (based on the local time) rather than as midnight of the day for which the value was calculated, and it shall be reported in Greenwich Mean Time (GMT).

3.1.1.3.7 Outfall Information

The X and Y position of the terminal end of the outfall pipe shall be monitored and sent at the start of the contract and thereafter according to the following table. Discharge Heading and Pipe Elevation may be omitted if the dredge is not discharging into an upland disposal site. For beach nourishment, the horizontal X and Y position of the outfall shall be sent at the start of the contract and at the completion of each 24-hour period ending at midnight local time.

Discharge Location	Horizontal Position	Discharge Pipe Elevation	Discharge Outfall Heading
Open Water	Continuous Work Event	N/A	N/A
Scow	Upon Change	N/A	N/A
Beach	Every 24 Hours	N/A	N/A
Upland	Upon Change	Upon Change	Upon Change

3.1.1.3.7.1 Discharge Location

Information on where the slurry is being discharged shall be reported with the tag "outfall\_location". Acceptable values include "upland", "open water", "beach", and "scow".

3.1.1.3.7.2 Discharge Horizontal Position

The horizontal position of the outfall end of the discharge pipe shall be obtained using a positioning system operating with a minimum accuracy level of 3-10 feet horizontal Circular Error Probable (CEP). It shall be reported as Latitude/Longitude WGS 84 in decimal degrees with West Longitude and South Latitude values being reported as negative. Position values shall be identified by the tags "outfall\_latitude" and "outfall\_longitude".

3.1.1.3.7.3 Discharge Outfall Heading

The discharge outfall heading is the angle relative to true north measured from the centerline of the pipe in the direction of discharge. All headings shall be provided using industry-standard equipment. They 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. The discharge heading shall be identified by the tag "outfall\_heading".

#### 3.1.1.3.7.4 Discharge Pipe Elevation

The discharge pipe elevation is the height of the outfall measured in feet and tenths of a foot relative to the project datum. The required accuracy is contingent upon contract requirements. The tag "outfall\_elevation" shall be used to identify this elevation.

#### 3.1.1.3.8 Non-effective Work Event

Delays and dredge downtime shall be reported at the conclusion of the event. The reason for the non-effective work time shall be submitted under the header tag "non\_eff\_event" within 24 hours of the event.

##### 3.1.1.3.8.1 Non-effective Work Interval

The start and end times for the non-effective work event shall be reported using the tags "msg\_start\_time" and "msg\_end\_time".

##### 3.1.1.3.8.2 Dredge Function Code

The dredge operator indication of production delays, as listed on Form 4267, shall be transmitted at the end of the non-effective interval. Dredge function event messages shall be identified by the tag "function\_code" and shall consist of one of the following standardized entries to indicate the operation:

AGV	Assisting Grounded Vessels
CCH	Change Cutterhead
CCSH	Clear Cutter Suction
CLPJ	Change Location Bar
COLL	Collision
CPPL	Clear Pump Pipeline
CPR	Change Impeller
DR	Dike Repair
FBD	Fire Boat Drills
HPL	Handling Pipe Line
HSL	Handling Swing Line
HSP	Handling Shore Pipe
LDNE	Loss Due to Natural Elements
LDPV	Loss Due to Passing Vessel
LNL	Transfer to New Location
MISC	Miscellaneous
MOB	Mobilization & Demobilization
MSC	Miscellaneous/Non-pay
OC	Out of Commission
OR	Operating Repairs
P	Preparation
PREP	Preparation & Making Up Tow
RPL	Repair Pipeline
SB	Sounding & Buoying
SBT	Stand-By Time as Directed
SH	Sundays-Holidays
TFS	Taking on Fuel & Supplies
TOW	Time on Tow
WAP	Waiting Attendant Plant

##### 3.1.1.3.8.3 Additional Comments

The "comment" tag shall be used to provide additional explanation for the



noted delays or downtimes. For example, when the code "LDPV" (Loss Due to Passing Vessel) is indicated, the name of the vessel and the number of tows shall be listed with the "comment" tag.

### 3.2 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS

The Contractor's DQM system shall be capable of collecting and transmitting information to the DQM onboard computer. The applicable parameters from Paragraph 3.1, "Requirements for Reported Data," shall be recorded as events locally and continuously 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, Universal Power Supply (UPS), and network hub. The computer system shall be a standalone system, exclusive to the DQM monitoring system, and shall 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 two business days of the determination of the condition or submitting a plan and timeline for repair if the repair will take more than two business days.

#### 3.2.1 Computer Requirements

The Contractor shall provide a dedicated onboard computer for use by the Dredging Quality Management system. This computer shall run the USACE DQM 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 1.6 gigahertz (GHz)
Hard drive	250 gigabytes (GB); internal
RAM	4 gigabytes (GB)
Ethernet adapter	Internal network card with an RJ 45 connector
Ports	1 free serial port with standard 9-pin connectors; 1 free USB port
Other hardware	Keyboard, mouse, monitor

The Contractor shall install a fully licensed copy of Windows 7 Professional Operating System or later 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 connection of external hardware.

#### 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 it. The DQM computer shall also have the USACE-provided Dredging Quality Management Onboard Software (DQMOBS) installed on it by DQM personnel.

#### 3.2.3 UPS

The Contractor shall supply an Uninterruptible Power Supply (UPS) for the

computer and networking equipment. It shall interface with the DQM computer to communicate UPS status, and it shall provide backup power at 1 kVA for a minimum of 10 minutes. The Contractor shall ensure that sufficient power outlets are available to run all specified equipment.

#### 3.2.4 Internet Access

The Contractor shall maintain an Internet connection capable of transmitting real-time data to the DQM server as well as enough additional bandwidth to clear historically queued data when a connection is re-established. If connectivity is lost, unsent data shall be queued and transmitted upon restoration of connectivity. Delays in pushing real-time data to the DQM database should not exceed four hours. Exceptions to these requirements may be granted by the DQM Support Center on a case-by-case basis with consideration for contract-specific requirements, site-specific conditions, and extreme weather events.

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 shall be configured to allow the DQM Support Center remote access to this computer, and the telemetry system shall be capable of meeting these minimum reporting requirements in all operating conditions.

In areas with poor cellular service and at the local District's discretion, it may be required to manually download the data on a daily basis using the protocol for retrieving and submitting backup files provided by the DQM Support Center. This method of data transmission should be used only if Internet connectivity is unavailable at the dredging site, and it should be considered a temporary measure.

#### 3.2.5 Data Routing Requirements

Onboard sensors continually monitor dredge conditions, operations, and efficiency and route this information to the shipboard dredge-specific system (DSS) computer to assist in guiding dredge operations. Portions of this Contractor-collected information, as described in this specification, 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 serial interface with a baud rate of 9600 or 19200 bps. The serial interface shall be configured as 8 bits, no parity, and no flow control

Information regarding changes in the state of the dredge shall be digitally logged and transmitted as close to the time of the occurrence as possible. These events can either be included in a separate message bundle going to the DQM onboard computer, or they can be entered on the "State" tab in the DQM Pipeline Software

### 3.3 DREDGE MONITORING DATA

#### 3.3.1 General

Onboard sensors continuously collect dredging data in support of the dredge Contractor's operations. Portions of this Contractor-collected information, as described in this specification, and calculations based on them shall be stored and transmitted to the DQM database on a near real-time basis. Additionally, information regarding the state of the dredge shall be digitally logged and transmitted.

### 3.3.2 Data Measurement Frequency

The frequency of data transmission is dependent on the type of message being sent. Work Event messages contain data that are instantaneously collected or calculated from sensors and are logged as a series of events. State event messages are activated by a change in the dredge state.

#### 3.3.2.1 Work Event Messages

Data shall be logged as a series of events. Each event shall consist of a dataset containing dredge information (as defined in Paragraph 3.1, "Requirements for Reported Data"). Each set of measurements (for example, time and position) shall be considered an event, and there shall be a 6-12 second interval between work events. This interval shall remain consistent across event types for the dredge plant.

A standard data string shall be recorded within one second of an event trigger with the time stamp and all parameters reflecting when the event happened.

#### 3.3.2.2 State Event Messages

A set of descriptive information (event name, time, description, comment) shall be considered a state event. These events shall be recorded within 24 hours of a change in state with the time stamp reflecting when the event happened.

#### 3.3.3 Parameter Transmission to the Web Service

The data shall be formatted as JSON (JavaScript Object Notation, as defined at <http://www.json.org>) strings of arbitrary length. These JSON strings represent a hierarchical data structure consisting of a message bundle which may contain 0-3 automatic data messages and any number of manual data messages.

A tag/parameter is reported only when it contains a value. No "Null" value strings shall be included in a message bundle.

```
*****  
Message bundle  
*****  
  
{  
  "DQM_Data": {  
    "messages": [  
      {  
        "work_event": {  
          "msg_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,  
          "vert_correction": <floating point 100th decimal place>,  
          "ch_latitude": <decimal to 6 decimal places>,  
          "ch_longitude": <decimal to 6 decimal places>,  
          "ch_depth": <floating point 100th decimal  
place>,  
          "ch_heading": <integer value 000-359>,  
          "slurry_velocity": <floating point 100th decimal place>,  
          "slurry_density": <floating point 100th decimal place>,  
          "pump_rpm": <integer>,  
          "vacuum": <floating point 100th decimal place>,  
          "outlet_psi": <floating point 100th decimal place>,  
        }  
      }  
    ]  
  }  
}
```

```
        "comment":          <string>},
    },
    {
        "contract_event": {
            "msg_time":      <24-hour UTC time YYYY-MM-DD HH:MM:SS>,
            "contract_number": <string>,
            "event_type":    <string - "start" or "end">,
            "comment":      <string>
        }
    },
    {
        "station_event": {
            "msg_time":      <24-hour UTC time YYYY-MM-DD HH:MM:SS>,
            "station_name": <string>,
            "comment":      <string>
        }
    },
    {
        "pipe_length_event": {
            "msg_time":      <24-hour UTC time YYYY-MM-DD HH:MM:SS>,
            "length_floating": <integer>,
            "length_submerged": <integer>,
            "length_land":    <integer>,
            "comment":      <string>
        }
    },
    {
        "booster_pump_event": {
            "msg_time":      <24-hour UTC time YYYY-MM-DDHH:MM:SS>,
            "booster_total": <integer>,
            "comment":      <string>
        }
    },
    {
        "advance_Event": {
            "msg_time":      <24-hour UTC time YYYY-MM-DD HH:MM:SS>,
            "advance_daily": <integer>,
            "comment":      <string>
        }
    },
    {
        "outfall_position": {
            "msg_time":      <24-hour UTC time YYYY-MM-DD HH:MM:SS>,
            "outfall_location": <string-"upland", "beach", "scow",
"open water">
            "outfall_latitude": <decimal to 6 decimal places>,
            "outfall_longitude": <decimal to 6 decimal places>,
            "outfall_heading": <integer value 000-359>,
            "outfall_elevation": <floating point 10th decimal place>,
            "comment":      <string>
        }
    },
    {
        "non_eff_event": {
            "msg_start_time": <24-hour UTC time YYYY-MM-DD HH:MM:SS>,
            "msg_end_time":  <24-hour UTC time YYYY-MM-DD HH:MM:SS>,
            "function_code": <string - 1 to 4 characters>,
            "comment":      <string>
        }
    }
}
```

```
    }  
  }  
] }  
}
```

### 3.3.4 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 same JSON format as would have been transmitted to the DQM computer. There shall be no line breaks between the parameters, and 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 a storage medium acceptable to the COR.

At the end of the dredging contact, the Contractor shall call the National DQM Support Center prior to discarding the data. The DQM Support Center will verify that all data has been received and appropriately archived before giving the Contractor discard permission. The Contractor shall then record the following information in a separate section at the end of the dredge's onboard copy of the DPIP:

- Person who called the National DQM Support Center
- Date of the call
- DQM representative who gave permission to discard the data

### 3.4 PERFORMANCE REQUIREMENTS

The Contractor's National Dredging Quality Management Program's data transmission shall be fully operational at the start of dredging operations. To meet contract requirements for operability, the Contractor's system shall provide an accurate data string return and be compliant with hardware requirements. Data string return is defined as the number of quality records within an event or state tag sent by the contractor's system to the DQM database. 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 two business days, or a plan and timeline for repair shall be submitted if the repair will take more than two business days. Failure by the Contractor to report quality data within the specified time window for dredge measurements as stated in the specifications (see Paragraph 3.2.4, "Internet Access"; Paragraph 3.3.2, "Data Measurement Frequency"; and Paragraph 3.3.3, "Parameter Transmission to the Web Service"), will result in withholding of up to 10% of the contract progress payment per clause 52.232-5.

### 3.5 LIST OF ITEMS PROVIDED BY THE CONTRACTOR

- DPIP <https://dqm.usace.army.mil>
- DQM System Paragraph 3.2, "National Dredging Quality Management Program System Requirements," including all subparagraphs
- Dredge Data Paragraph 3.3, "Dredging Monitoring Data"

-- End of Section --

APPENDIX A  
GEOTECHNICAL BORING LOGS  
AND  
LAB DATA

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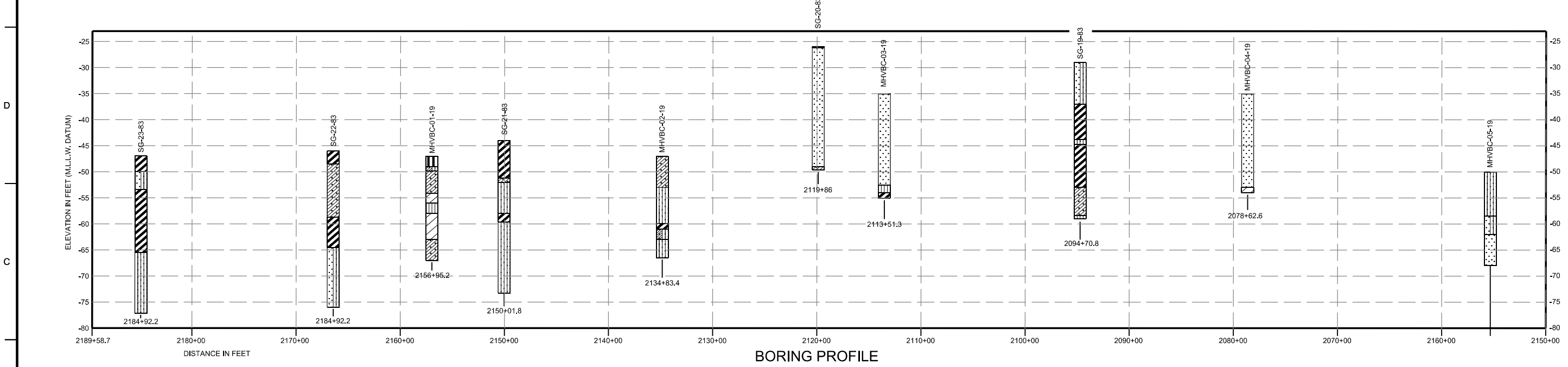
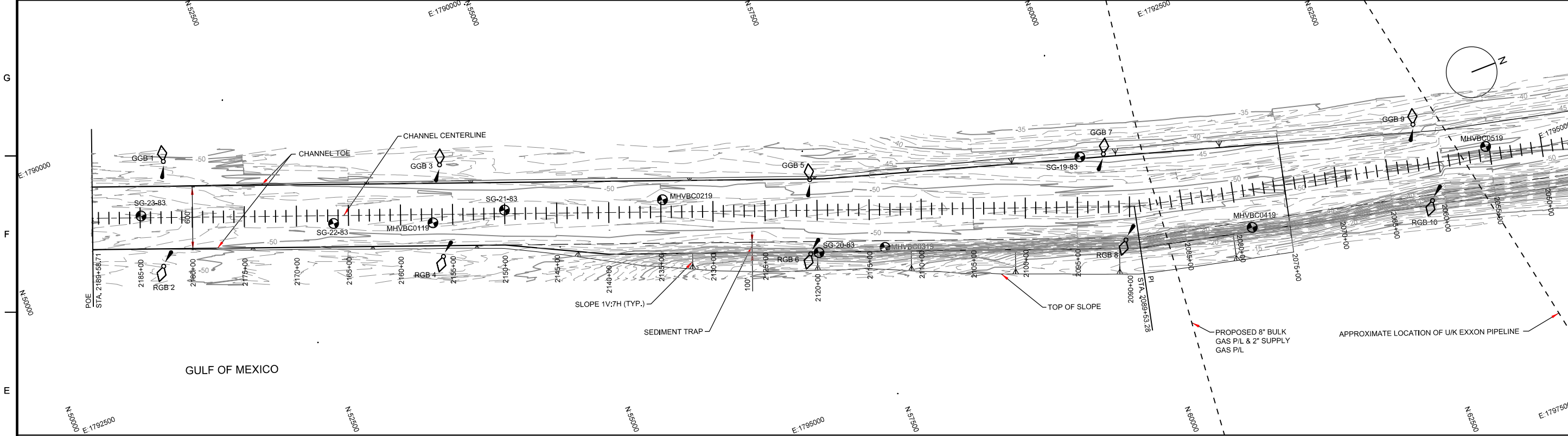
MARK	DESCRIPTION	DATE

DESIGNED BY: J. MCCONNELL	ISSUE DATE: APRIL 2020
DRAWN BY: J. GIBSON	SOLICITATION NO.:
CHECKED BY: E. GODSEY	CONTRACT NO.:
SUBMITTED BY: B. CRANE	WXXXXX-XX-XXX
SIZE: ANSI D	CADD CODE: CHC20001
	ISO SHEET FILE NAME: CHC20001-CN-106.dwg

MOBILE DISTRICT  
109 ST. JOSEPH STREET  
MOBILE, AL. 36602

MOBILE, AL  
MOBILE HARBOR, ALABAMA  
Phase 1 Deepening and Widening

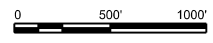
BORING PROFILE  
SHEET ID  
CN-106


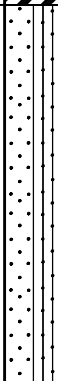




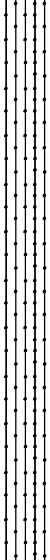
**LEGEND**

	GREEN GAS BUOY		SM - SILTY SANDS, SAND SILT MIXTURE
	RED GAS BUOY		SC - CLAYEY SANDS, CLAY + SAND MIXTURE
	BORING LOCATION		ML - INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL - INORGANIC CLAYS WITH LOW TO MEDIUM PLASTICITY, GRAVELY CLAYS, SILTY CLAYS, LEAN CLAYS
			CH - INORGANIC CLAYS WITH HIGH PLASTICITY, FAY CLAYS
			MH - INORGANIC SILT, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTY SOILS, PLASTIC SILTS
			SP - POORLY GRADED SANDS

- NOTES:**
- SOILS ARE CLASSIFIED IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM (USCS), ASTM D 2487 AND VISUAL-MANUAL PROCEDURES, ASTM D 2488.
  - WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, VARIATIONS IN CHARACTERISTICS OF THE SUBSURFACE MATERIALS ARE ANTICIPATED AND, IF ENCOUNTERED, SUCH VARIATIONS WILL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THE DESCRIPTION SHOWN WITH THE BORING LOGS OR BORING PROFILES.
  - BORING LOCATIONS AND ELEVATIONS AS SHOWN ON THE BORING LOGS AND BORING PROFILES SHOULD BE CONSIDERED APPROXIMATE.





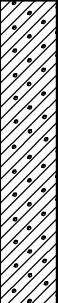


<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		<b>SHEET</b> 1 <b>OF</b> 3 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 1982-1984 Subsurface Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.140038 LONG = -88.062332						
				<b>STATE PLANE COORDINATES</b> X = 1,790,752 Y = 51,365						
<b>DATE OF BORING</b>		<b>STARTED</b> 10-13-83	<b>COMPLETED</b> 10-13-83	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>GROUND WATER</b>				
				TOP OF BORING -47.0 Feet		Underwater				
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> J. Shaw, Geologist			<b>NAME OF DRILLER</b> E. Lagrone		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocore					
					<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER					
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>	<b>SIZE AND TYPE OF BIT</b> See Remarks						
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 30.2 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-47.0	0.0									
			(CH) CLAY, fat, medium consistency, greenish gray with a few small sand laminations							
-50.0	3.0		(SP-SM) SAND, poorly-graded with silt, greenish gray fine to medium grained, with numerous shells and shell fragments and numerous clay pockets	100	1		Vibrocore			
-53.4	6.4		(CH) CLAY, fat, stiff consistency, greenish gray interbedded and interlaminated fat clay and silty sand, fine to medium grained, with occasional shells and shell fragments and occasional decomposed wood fragments							

ELEV.		DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-65.5		18.5		At El. -59.4 Ft., stiff consistency, greenish gray with occasional sand pockets, shell, shell fragments, and decomposed wood fragments	100	1		Vibracore			
				(SM) SAND, silty, greenish gray fine to medium grained, with numerous shells and shell fragments							

DRILLING LOG (Cont. Sheet)			INSTALLATION				SHEET 3 OF 3 SHEETS			
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,790,752 Y = 51,365			ELEVATION TOP OF BORING -47.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-77.2	30.2			100	1		Vibracore			
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							

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<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		<b>SHEET</b> 1 <b>OF</b> 3 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 1982-1984 Subsurface Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.144706 LONG = -88.059998						
				<b>STATE PLANE COORDINATES</b> X = 1,791,498 Y = 53,059						
<b>DATE OF BORING</b>		<b>STARTED</b> 10-14-83	<b>COMPLETED</b> 10-14-83	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>GROUND WATER</b>				
				TOP OF BORING -46.0 Feet		Underwater				
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> J. Shaw, Geologist			<b>NAME OF DRILLER</b> E. Lagrone		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocure					
					<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER					
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>	<b>SIZE AND TYPE OF BIT</b> See Remarks						
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 30.0 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-46.0	0.0									
			(CH) CLAY, fat, black and dark green and olive with some sandy pockets							
-48.5	2.5		(SC) SAND, clayey, high plasticity, greenish gray fine to medium grained, with numerous shell fragments and decomposed wood fragments	100	1		Vibrocure			

DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District			SHEET 2 OF 3 SHEETS				
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,791,498 Y = 53,059			ELEVATION TOP OF BORING -46.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-58.7	12.7									
			(CH) CLAY, fat, medium consistency, greenish gray with numerous sandy pockets, shells, and shell fragments, and occasional decomposed wood fragments	100	1		Vibracore			
-64.5	18.5		(SP-SM) SAND, poorly-graded with silt, greenish gray fine to medium grained, with numerous shells and shell fragments and decomposed wood fragments							

DRILLING LOG (Cont. Sheet)			INSTALLATION				SHEET 3 OF 3 SHEETS			
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,791,498 Y = 53,059			ELEVATION TOP OF BORING -46.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-76.0	30.0			100	1		Vibracore			
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							



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<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		SHEET 1 OF 2 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 2020 Geotechnical Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.14715753 LONG = -88.05893639						
				<b>STATE PLANE COORDINATES</b> X = 1,791,838 Y = 53,949						
<b>DATE OF BORING</b>		<b>STARTED</b> 01-25-20	<b>COMPLETED</b> 01-25-20	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>TOP OF BORING</b> -47.0 Feet	<b>GROUND WATER</b> Underwater			
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> C. Long, Geotechnical Engineer		<b>NAME OF DRILLER</b> CSI		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocore <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER						
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>	<b>SIZE AND TYPE OF BIT</b> See Remarks						
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 20.0 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-47.0	0.0		(MH) SILT, inorganic-H, high plasticity, very soft consistency, wet, dark gray							
-49.0	2.0		(SC-SM) SAND, silty, clayey, low plasticity, soft consistency, wet, dark gray, inorganic							
-49.8	2.8		(SC) SAND, clayey, medium plasticity, soft consistency, wet, dark gray, inorganic, very sandy, with shell At El. -50.0 Ft. shell lense At El. -50.2 Ft. CH lense					At El. -49.5 Ft. LL=26, PL=21, PI=5, -200=23%, MC=36%		
-54.1	7.1		At El. -54.0 Ft. wood lense (CL) CLAY, lean, medium plasticity, soft consistency, wet, dark gray, sandy, trace wood	100	1		Vibrocure	At El. -52 Ft. LL=30, PL=17, PI=17, -200=39%, MC=40%		
-56.0	9.0		(ML) SILT, inorganic-L, low plasticity, soft consistency, wet, dark gray, with sand					At El. -55 Ft. LL=30, PL=19, PI=11, -200=60%, MC=49%		



DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District			SHEET 2 OF 2 SHEETS				
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,791,838 Y = 53,949			ELEVATION TOP OF BORING -47.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-58.0	11.0							At El. -57.5 Ft. LL=22, PL=23, PI=NP, -200=76%, MC=55%		
			(CL) CLAY, lean, low plasticity, soft consistency, wet, dark gray, trace shell	100	1		Vibracore			
-63.0	16.0		(SC) SAND, clayey, low plasticity, soft consistency, wet, dark gray, with shell, inorganic							
-67.0	20.0									
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							

<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		SHEET 1 OF 3 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 1982-1984 Subsurface Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.149038 LONG = -88.058498						
				<b>STATE PLANE COORDINATES</b> X = 1,791,980 Y = 54,633						
<b>DATE OF BORING</b>		<b>STARTED</b> 10-14-83	<b>COMPLETED</b> 10-14-83	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>TOP OF BORING</b> -44.0 Feet	<b>GROUND WATER</b> Underwater			
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> J. Shaw, Geologist			<b>NAME OF DRILLER</b> E. Lagrone		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocore <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER					
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>		<b>SIZE AND TYPE OF BIT</b> See Remarks					
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 29.3 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-44.0	0.0		(CH) CLAY, fat, soft consistency, greenish gray occasional sand pockets and lenses							
		At El. -46.5 Ft., black and dark gray								
		At El. -48.3 Ft. occasional silt laminations								
		At El. -49.8 Ft., medium consistency sandy, with numerous shells and shell fragments		100	1		Vibrocure			
-51.2	7.2		(SC) SAND, clayey, greenish gray fine to medium grained, with numerous shells and shell fragments							
-52.0	8.0		(SM) SAND, silty, greenish gray fine to medium grained, with numerous fat clay laminations							

DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District			SHEET 2 OF 3 SHEETS				
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,791,980 Y = 54,633			ELEVATION TOP OF BORING -44.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-58.0	14.0		(CH) CLAY, fat, medium consistency, greenish gray numerous gravelly sand pockets and numerous shells and shell fragments							
-59.6	15.6		(SM) SAND, silty, greenish gray fine to medium grained, with numerous fat clay laminations and pockets	100	1		Vibracore			

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DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District				SHEET 3 OF 3 SHEETS			
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,791,980 Y = 54,633			ELEVATION TOP OF BORING -44.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-73.3	29.3			100	1		Vibracore			
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							

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<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		<b>SHEET</b> 1 <b>OF</b> 2 SHEETS	
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 2020 Geotechnical Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.15302539 LONG = -88.0570623			
				<b>STATE PLANE COORDINATES</b> X = 1,792,440 Y = 56,080			
<b>DATE OF BORING</b>		<b>STARTED</b> 01-25-20	<b>COMPLETED</b> 01-25-20	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>TOP OF BORING</b> -48.0 Feet	<b>GROUND WATER</b> Underwater
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> C. Long, Geotechnical Engineer			<b>NAME OF DRILLER</b> CSI		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocure <input type="checkbox"/> <b>AUTO HAMMER</b> <input type="checkbox"/> <b>MANUAL HAMMER</b>		
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> <b>VERTICAL</b> <input type="checkbox"/> <b>INCLINED</b>		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>		<b>SIZE AND TYPE OF BIT</b> See Remarks		
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0			
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0
<b>TOTAL DEPTH OF BORING</b> 19.5 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %			

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-48.0	0.0		(SC) SAND, clayey, medium plasticity, very soft consistency, wet, dark gray, inorganic,							
			At El. -51.0 Ft., low plasticity, soft consistency, wet, dark gray, inorganic					At El. -51 Ft. LL=38, PL=22, PI=16, -200=44%, MC=60%		
-53.0	5.0		(SM) SAND, silty, low plasticity, soft consistency, wet, dark gray, trace shell, strong rotten egg smell	100	1		Vibrocure	At El. -54 Ft. LL=21, PL=19, PI=2, -200=23%, MC=38%		

DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District			SHEET 2 OF 2 SHEETS				
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,792,440 Y = 56,080			ELEVATION TOP OF BORING -48.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-61.0	13.0		At El. -58.0 Ft., low plasticity, soft consistency, wet, dark gray, trace shell							
-62.0	14.0		(CH) CLAY, fat, high plasticity, soft consistency, wet, dark gray, inorganic							
-64.0	16.0		(SC-SM) SAND, silty, clayey, low plasticity, soft consistency, wet, dark gray, inorganic	100	1		Vibracore			
-67.5	19.5		(SM) SAND, silty, low plasticity, soft consistency, wet shelly							
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							


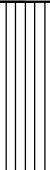

<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		<b>SHEET</b> 1 <b>OF</b> 3 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 1982-1984 Subsurface Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.156372 LONG = -88.053831						
				<b>STATE PLANE COORDINATES</b> X = 1,793,468 Y = 57,293						
<b>DATE OF BORING</b>		<b>STARTED</b> 10-14-83	<b>COMPLETED</b> 10-14-83	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>TOP OF BORING</b> -26.0 Feet				
						<b>GROUND WATER</b> Underwater				
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> J. Shaw, Geologist			<b>NAME OF DRILLER</b> E. Lagrone		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocure					
					<input type="checkbox"/> <b>AUTO HAMMER</b> <input type="checkbox"/> <b>MANUAL HAMMER</b>					
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> <b>VERTICAL</b> <input type="checkbox"/> <b>INCLINED</b>		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>	<b>SIZE AND TYPE OF BIT</b> See Remarks						
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 23.6 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-26.0	0.0									
-26.2	0.2		(CH) CLAY, fat, high plasticity, soft consistency, wet, black and dark gray (SP) SAND, poorly-graded, wet, gray and slightly green purple fine to medium grained							
				100	1		Vibrocure			

ELEV.		DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/ 1 FT.	N-VALUE
-49.0	23.0				100	1		Vibracore			
-49.6	23.6			(SC) SAND, clayey, high plasticity, soft consistency, wet, light brown and greenish							


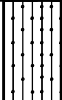







<b>DRILLING LOG (Cont. Sheet)</b>			<b>INSTALLATION</b> Mobile District				<b>SHEET 3</b> <b>OF 3 SHEETS</b>			
<b>PROJECT</b> Mobile Harbor Federal Navigation Project			<b>COORDINATE SYSTEM/DATUM</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZONTAL</b> NAD83	<b>VERTICAL</b> MLLW				
<b>LOCATION COORDINATES</b> X = 1,793,468 Y = 57,293			<b>ELEVATION TOP OF BORING</b> -26.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
			gray fine to medium grained sand							
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							
										24
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<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		SHEET 1 OF 2 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 2020 Geotechnical Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.158048 LONG = -88.053264						
				<b>STATE PLANE COORDINATES</b> X = 1,793,650 Y = 57,901						
<b>DATE OF BORING</b>		<b>STARTED</b> 01-25-20	<b>COMPLETED</b> 01-25-20	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>GROUND WATER</b>				
				TOP OF BORING -36.0 Feet		Underwater				
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> C. Long, Geotechnical Engineer			<b>NAME OF DRILLER</b> CSI		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocure					
					<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER					
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>	<b>SIZE AND TYPE OF BIT</b> See Remarks						
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 20.0 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-36.0	0.0		(SP) SAND, poorly-graded, wet, light gray, fine grained							
		•••••								
				100	1		Vibrocure			


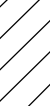
DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District				SHEET 2 OF 2 SHEETS			
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,793,650 Y = 57,901			ELEVATION TOP OF BORING -36.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
										
				100	1		Vibracore	At El. -48 Ft. -200=1%, Cu=1.6, Cc=0.9, MC=22%		
-53.5	17.5									
			(ML) SILT, inorganic-L, medium plasticity, soft consistency, wet, dark gray, very sandy					At El. -54 Ft. LL=41, PL=30, PI=11, -200=54%, MC=68%		
-55.0	19.0									
			(CH) CLAY, fat, high plasticity, soft consistency, wet, gray, inorganic							
-56.0	20.0									
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							

<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		<b>SHEET</b> 1				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 1982-1984 Subsurface Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.163706 LONG = -88.053663						
<b>DATE OF BORING</b> STARTED 10-14-83 COMPLETED 10-14-83				<b>STATE PLANE COORDINATES</b> X = 1,793,534 Y = 59,960						
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM		<b>ELEVATIONS</b> TOP OF BORING -29.0 Feet		<b>GROUND WATER</b> Underwater						
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> J. Shaw, Geologist		<b>NAME OF DRILLER</b> E. Lagrone		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocore <input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER						
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>		<b>BEARING</b>		<b>SIZE AND TYPE OF BIT</b> See Remarks				
<b>THICKNESS OF OVERBURDEN</b> N/A		<b>TOTAL NUMBER CORE BOXES</b> 0								
<b>DEPTH TO TOP OF ROCK</b> N/A		<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1		<b>UNDISTURBED (UD)</b> 0				
<b>TOTAL DEPTH OF BORING</b> 30.0 Feet		<b>TOTAL RECOVERY FOR BORING</b> 100 %								
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-29.0	0.0		(SP-SM) SAND, poorly-graded with silt, greenish gray fine to medium grained, occasional fat clay lenses and pockets, numerous shell fragments							
			(CH) CLAY, fat, medium consistency, greenish gray occasional pockets and lenses of sand							
				100	1		Vibrocure	At El. -31 Ft. LL=NP, PL=NP, PI=NP, shell=3%		

DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District				SHEET 2 OF 3 SHEETS			
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,793,534 Y = 59,960			ELEVATION TOP OF BORING -29.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
										
-43.8	14.8		(SM) SAND, silty, greenish gray numerous fat clay pockets and shell fragments					At El. -40 Ft. LL=127, PL=44, PI=83		
-44.7	15.7		(CH) CLAY, fat, soft consistency, greenish gray numerous silty sand pockets and lenses	100	1		Vibracore			
										
								At El. -51.5 Ft. -200=58%		

DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District			SHEET 3 OF 3 SHEETS				
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,793,534 Y = 59,960			ELEVATION TOP OF BORING -29.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-53.0	24.0		(SC) SAND, clayey, greenish gray fine grained, numerous small fat clay pockets and numerous shells and shell fragments	100	1		Vibracore			
-58.4	29.4		(ML) SILT, inorganic-L, olive							
-59.0	30.0		NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.					At El. -58.8 Ft. shell=5%		

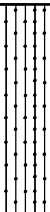
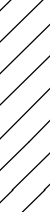

<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		SHEET 1 OF 2 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 2020 Geotechnical Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.167272 LONG = -88.049782						
				<b>STATE PLANE COORDINATES</b> X = 1,794,766 Y = 61,250						
<b>DATE OF BORING</b>		<b>STARTED</b> 01-25-20	<b>COMPLETED</b> 01-25-20	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>GROUND WATER</b>				
				TOP OF BORING -36.0 Feet		Underwater				
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> C. Long, Geotechnical Engineer			<b>NAME OF DRILLER</b> CSI		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocure					
					<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER					
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>	<b>SIZE AND TYPE OF BIT</b> See Remarks						
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 19.0 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-36.0	0.0									
		(SP) SAND, poorly-graded, wet, light gray, fine grained								
		At El. -39.0 Ft., light brown								
		At El. -42.0 Ft., light gray								
				100	1		Vibrocure			

DRILLING LOG (Cont. Sheet)			INSTALLATION				SHEET 2 OF 2 SHEETS			
PROJECT			COORDINATE SYSTEM/DATUM		HORIZONTAL	VERTICAL				
Mobile Harbor Federal Navigation Project			State Plane - Alabama West - U.S. Survey Ft.		NAD83	MLLW				
LOCATION COORDINATES			ELEVATION TOP OF BORING							
X = 1,794,766 Y = 61,250			-36.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
										
				100	1		Vibracore	At El. -50 Ft. -200=3%, Cu=2, Cc=1, MC=26%		
-54.0	18.0		(CL) CLAY, lean, low plasticity, soft consistency, wet, dark gray, traces of wood, strong rotten egg smell							
-55.0	19.0									
NOTES:										
1. Soils are field visually classified in accordance with the Unified Soils Classification System.										





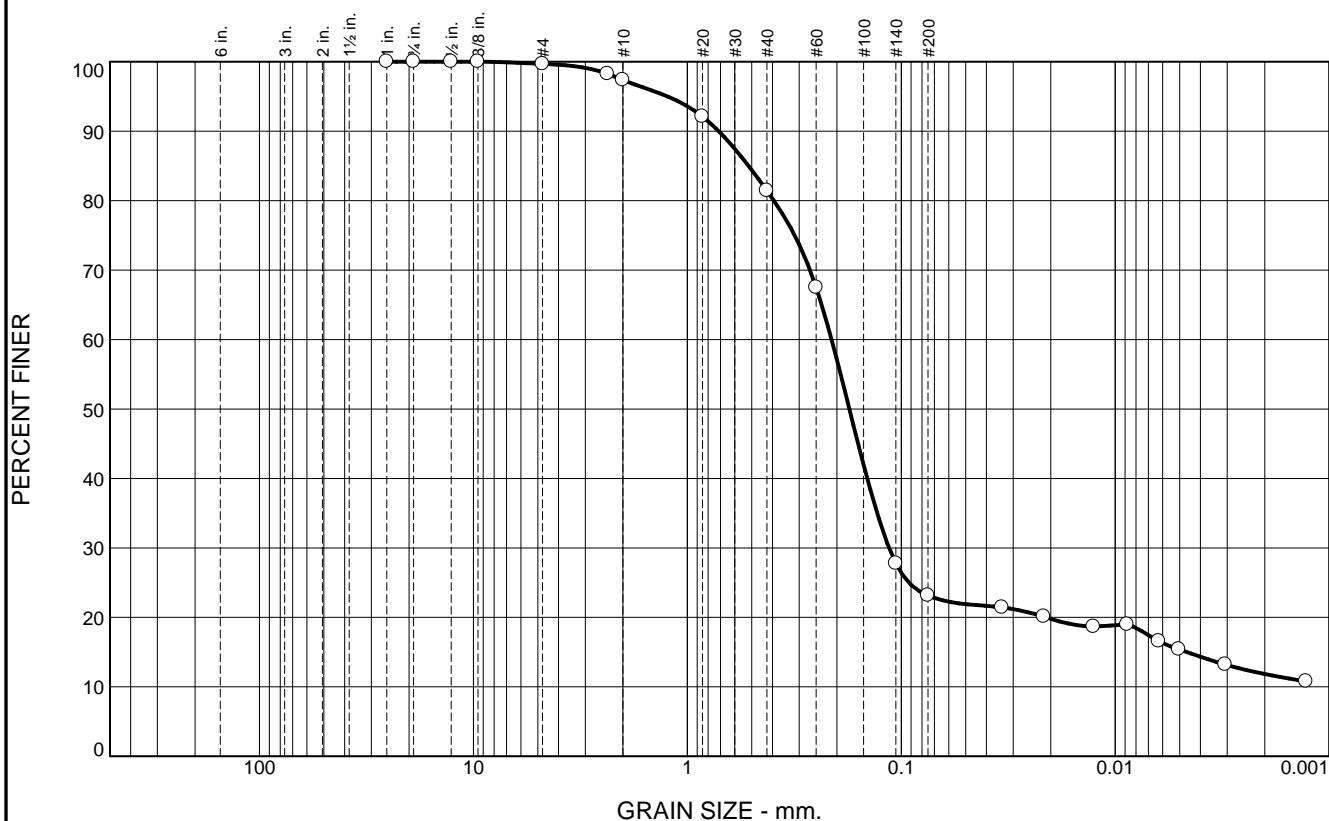
DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District			SHEET 2 OF 2 SHEETS				
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,794,866 Y = 63,620			ELEVATION TOP OF BORING -50.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-62.0	12.0		(SP) SAND, poorly-graded, wet, dark brown, medium grained, strong rotten egg smell	100	1		Vibracore	At El. -64 Ft. -200=3%, Cu=2.1, Cc=0.98, MC=23%		
-68.0	18.0									
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							

<b>DRILLING LOG</b>		<b>DIVISION</b> South Atlantic		<b>INSTALLATION</b> Mobile District		<b>SHEET</b> 1 <b>OF</b> 2 SHEETS				
<b>PROJECT</b> Mobile Harbor Federal Navigation Project 1982-1984 Subsurface Investigation				<b>LAT/LONG COORDINATES</b> LAT = 30.176871 LONG = -88.048664						
				<b>STATE PLANE COORDINATES</b> X = 1,795,137 Y = 64,740						
<b>DATE OF BORING</b>		<b>STARTED</b> 10-14-83	<b>COMPLETED</b> 10-14-83	<b>COORDINATE SYSTEM/DATUM/UNITS</b> State Plane - Alabama West - U.S. Survey Ft.		<b>HORIZ.</b> NAD83	<b>VERT.</b> MLLW			
<b>DRILLING AGENCY</b> Corps of Engineers - CESAM				<b>ELEVATIONS</b>		<b>GROUND WATER</b>				
				TOP OF BORING -44.0 Feet		Underwater				
<b>NAME &amp; TITLE OF FIELD INSPECTOR</b> J. Shaw, Geologist			<b>NAME OF DRILLER</b> E. Lagrone		<b>MANUFACTURER'S DESIGNATION OF DRILL</b> Vibrocore					
					<input type="checkbox"/> AUTO HAMMER <input type="checkbox"/> MANUAL HAMMER					
<b>DIRECTION OF BORING</b> <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED		<b>DEG. FROM VERTICAL</b>	<b>BEARING</b>	<b>SIZE AND TYPE OF BIT</b> See Remarks						
<b>THICKNESS OF OVERBURDEN</b> N/A				<b>TOTAL NUMBER CORE BOXES</b> 0						
<b>DEPTH TO TOP OF ROCK</b> N/A				<b>TOTAL SAMPLES</b>		<b>DISTURBED</b> 1	<b>UNDISTURBED (UD)</b> 0			
<b>TOTAL DEPTH OF BORING</b> 16.2 Feet				<b>TOTAL RECOVERY FOR BORING</b> 100 %						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-44.0	0.0									
			(SM) SAND, silty, greenish gray fine to medium grained, with occasional wood and shell fragments							
-46.0	2.0									
			(CL) CLAY, lean, medium consistency, greenish gray							
-48.0	4.0									
			(SC) SAND, clayey, stiff consistency, greenish gray with numerous shells and shell fragments	100	1		Vibrocore			
-54.0	10.0									

DRILLING LOG (Cont. Sheet)			INSTALLATION Mobile District			SHEET 2 OF 2 SHEETS				
PROJECT Mobile Harbor Federal Navigation Project			COORDINATE SYSTEM/DATUM State Plane - Alabama West - U.S. Survey Ft.		HORIZONTAL NAD83	VERTICAL MLLW				
LOCATION COORDINATES X = 1,795,137 Y = 64,740			ELEVATION TOP OF BORING -44.0 Ft.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	% REC.	BOX OR SAMPLE	RQD OR UD	ADVANCEMENT METHOD	DRILLING REMARKS	BLOWS/1 FT.	N-VALUE
-60.2	16.2		(SM) SAND, silty, rusty brown and greenish gray occasional clay zones and decomposed wood fragments, medium grained	100	1		Vibracore			
			NOTES: 1. Soils are field visually classified in accordance with the Unified Soils Classification System.							

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# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.3	2.3	16.0	58.3	7.7	15.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	99.7		
#8	98.3		
#10	97.4		
#20	92.1		
#40	81.4		
#60	67.5		
#140	27.8		
#200	23.1		

**Material Description**  
GRAY SILTY CLAYEY SAND

**Atterberg Limits**  
 PL= 21      LL= 26      PI= 5

**Coefficients**  
 D<sub>90</sub>= 0.7142      D<sub>85</sub>= 0.5179      D<sub>60</sub>= 0.2119  
 D<sub>50</sub>= 0.1749      D<sub>30</sub>= 0.1141      D<sub>15</sub>= 0.0046  
 D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**  
 USCS= SC-SM      AASHTO= A-2-4(0)

**Remarks**  
 MOISTURE CONTENT: 36.3%  
 SPECIFIC GRAVITY: 2.71

\* (no specification provided)

Source of Sample: MHVBC-1-19

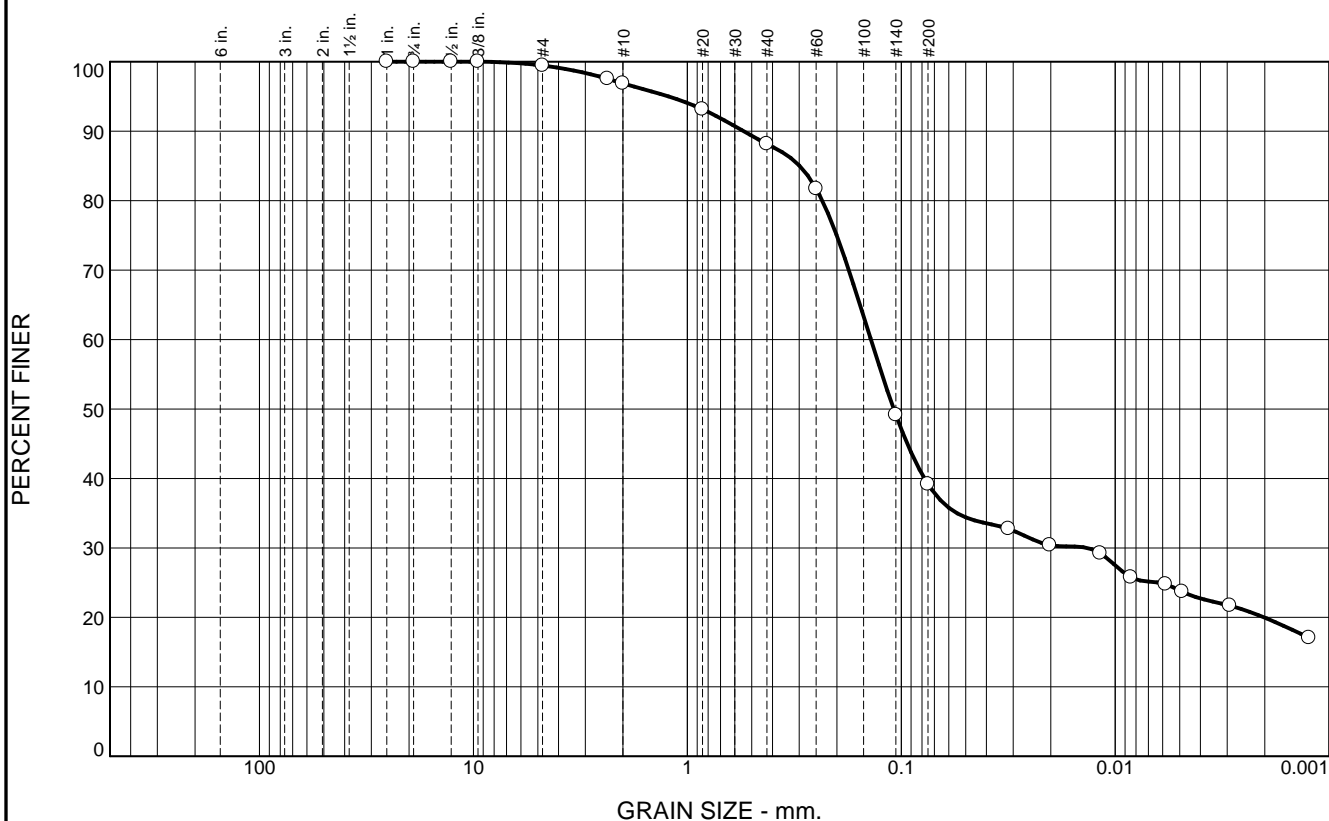
Depth: 2'-3'

Date: 2/5/2020

**SOUTHERN EARTH  
SCIENCES  
Mobile, Alabama**

Client: ARCHWAY SOLUTIONS  
 Project: USACOE - MOBILE HARBOR W91278-19-D-0045  
 Project No: M20-069      Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	2.5	8.7	49.0	15.3	23.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	99.4		
#8	97.5		
#10	96.9		
#20	93.2		
#40	88.2		
#60	81.7		
#140	49.2		
#200	39.2		

**Material Description**

GRAY CLAYEY SAND

**Atterberg Limits**  
 PL= 17      LL= 30      PI= 13

**Coefficients**  
 D<sub>90</sub>= 0.5463      D<sub>85</sub>= 0.2988      D<sub>60</sub>= 0.1387  
 D<sub>50</sub>= 0.1084      D<sub>30</sub>= 0.0135      D<sub>15</sub>=  
 D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**  
 USCS= SC                      AASHTO= A-6(1)

**Remarks**  
 MOISTURE CONTENT: 39.6%  
 ASSUMED SPEC. GRAVITY: 2.7

\* (no specification provided)

Source of Sample: MHVBC-1-19

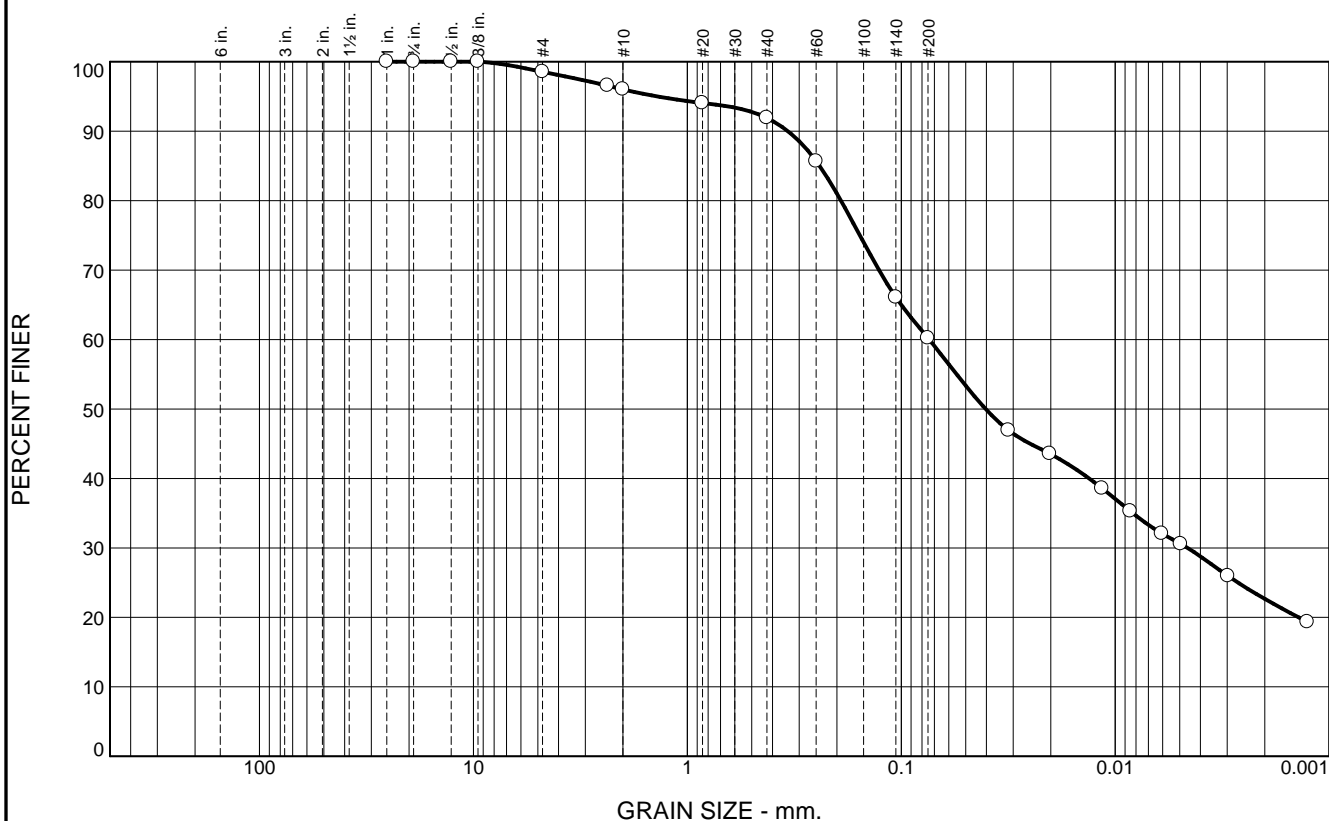
Depth: 5'-6'

Date: 2/5/2020

**SOUTHERN EARTH  
SCIENCES  
Mobile, Alabama**

Client: ARCHWAY SOLUTIONS  
 Project: USACOE - MOBILE HARBOR W91278-19-D-0045  
 Project No: M20-069                      Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.5	2.5	4.1	31.7	29.5	30.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	98.5		
#8	96.5		
#10	96.0		
#20	94.0		
#40	91.9		
#60	85.7		
#140	66.1		
#200	60.2		

**Material Description**

GRAY CLAY

**Atterberg Limits**

PL= 19      LL= 30      PI= 11

**Coefficients**

D<sub>90</sub>= 0.3392      D<sub>85</sub>= 0.2412      D<sub>60</sub>= 0.0741  
D<sub>50</sub>= 0.0403      D<sub>30</sub>= 0.0046      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS= CL                      AASHTO= A-6(4)

**Remarks**

MOISTURE CONTENT: 48.9%  
ASSUMED SPEC. GRAVITY: 2.7

\* (no specification provided)

Source of Sample: MHVBC-1-19

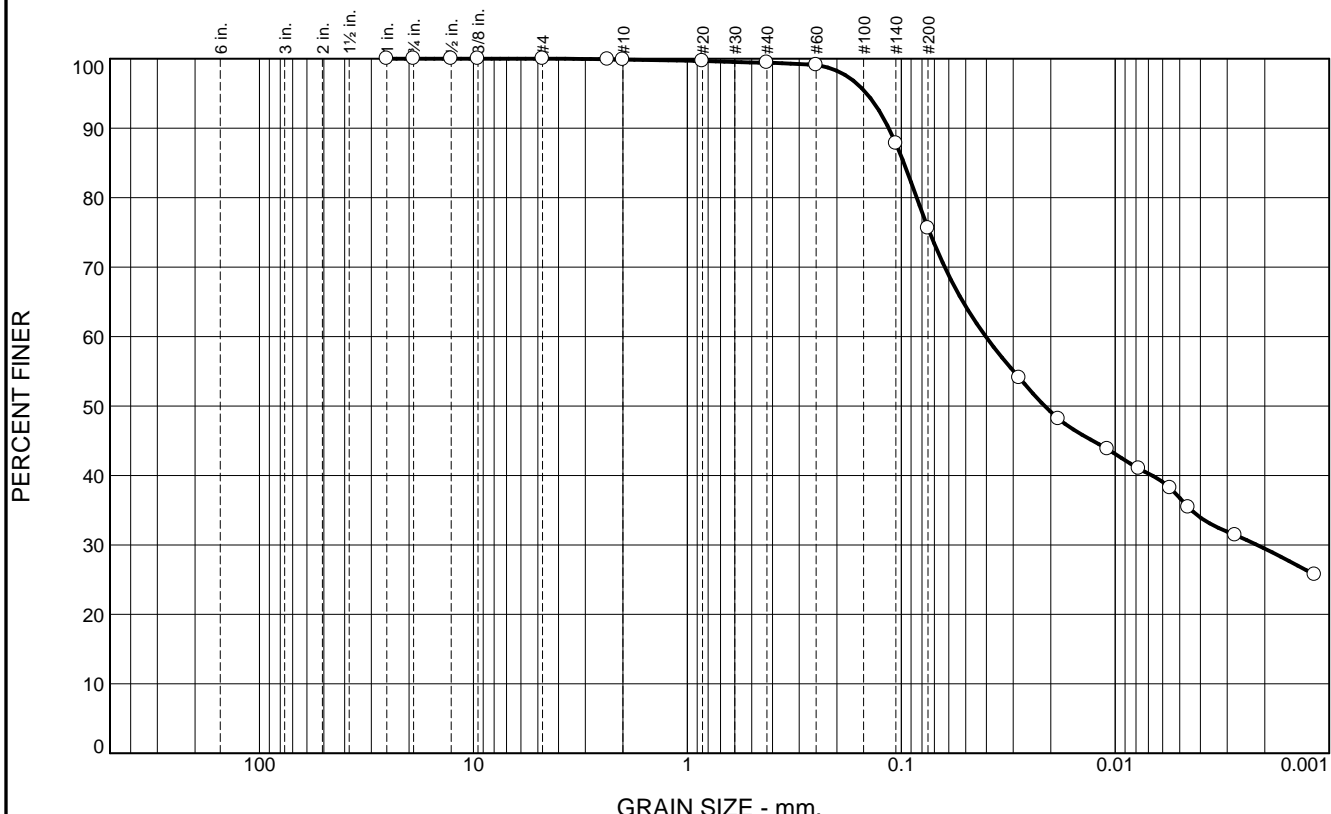
Depth: 7'-8'

Date: 2/5/2020

**SOUTHERN EARTH  
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Mobile, Alabama**

Client: ARCHWAY SOLUTIONS  
Project: USACOE - MOBILE HARBOR W91278-19-D-0045  
Project No: M20-069                      Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	0.5	23.8	38.8	36.8

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	99.9		
#10	99.9		
#20	99.7		
#40	99.4		
#60	99.1		
#140	87.8		
#200	75.6		

**Material Description**

GRAY SILT

**Atterberg Limits**  
 PL= 23      LL= 22      PI= NP

**Coefficients**  
 D<sub>90</sub>= 0.1144      D<sub>85</sub>= 0.0973      D<sub>60</sub>= 0.0403  
 D<sub>50</sub>= 0.0214      D<sub>30</sub>= 0.0022      D<sub>15</sub>=  
 D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**  
 USCS= ML                      AASHTO= A-4(0)

**Remarks**  
 MOISTURE CONTENT: 54.5%  
 SPECIFIC GRAVITY: 2.84

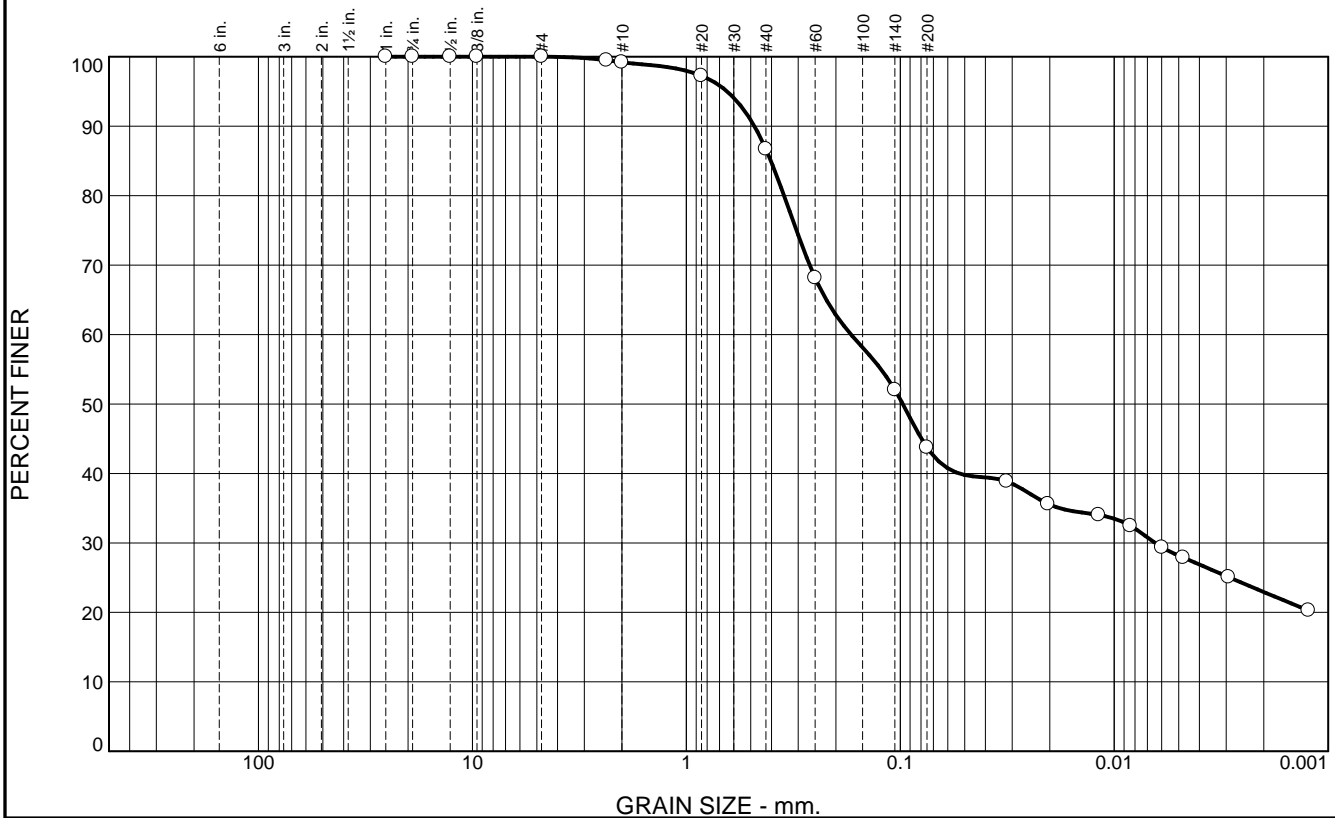
\* (no specification provided)

Source of Sample: MHVBC-1-19      Depth: 10'-11'      Date: 2/5/2020

<b>SOUTHERN EARTH SCIENCES</b> Mobile, Alabama	Client: ARCHWAY SOLUTIONS Project: USACOE - MOBILE HARBOR W91278-19-D-0045 Project No: M20-069      Figure
---	--



# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.8	12.5	43.0	15.5	28.2

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	99.5		
#10	99.2		
#20	97.2		
#40	86.7		
#60	68.1		
#140	52.0		
#200	43.7		

**Material Description**

GRAY CLAYEY SAND

**Atterberg Limits**

PL= 22      LL= 38      PI= 16

**Coefficients**

D<sub>90</sub>= 0.4809      D<sub>85</sub>= 0.4026      D<sub>60</sub>= 0.1699  
D<sub>50</sub>= 0.0974      D<sub>30</sub>= 0.0064      D<sub>15</sub>=  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= SC              AASHTO= A-6(3)

**Remarks**

MOISTURE CONTENT: 60.4%  
SPECIFIC GRAVITY: 2.76

\* (no specification provided)

Source of Sample: MHVBC-2-19

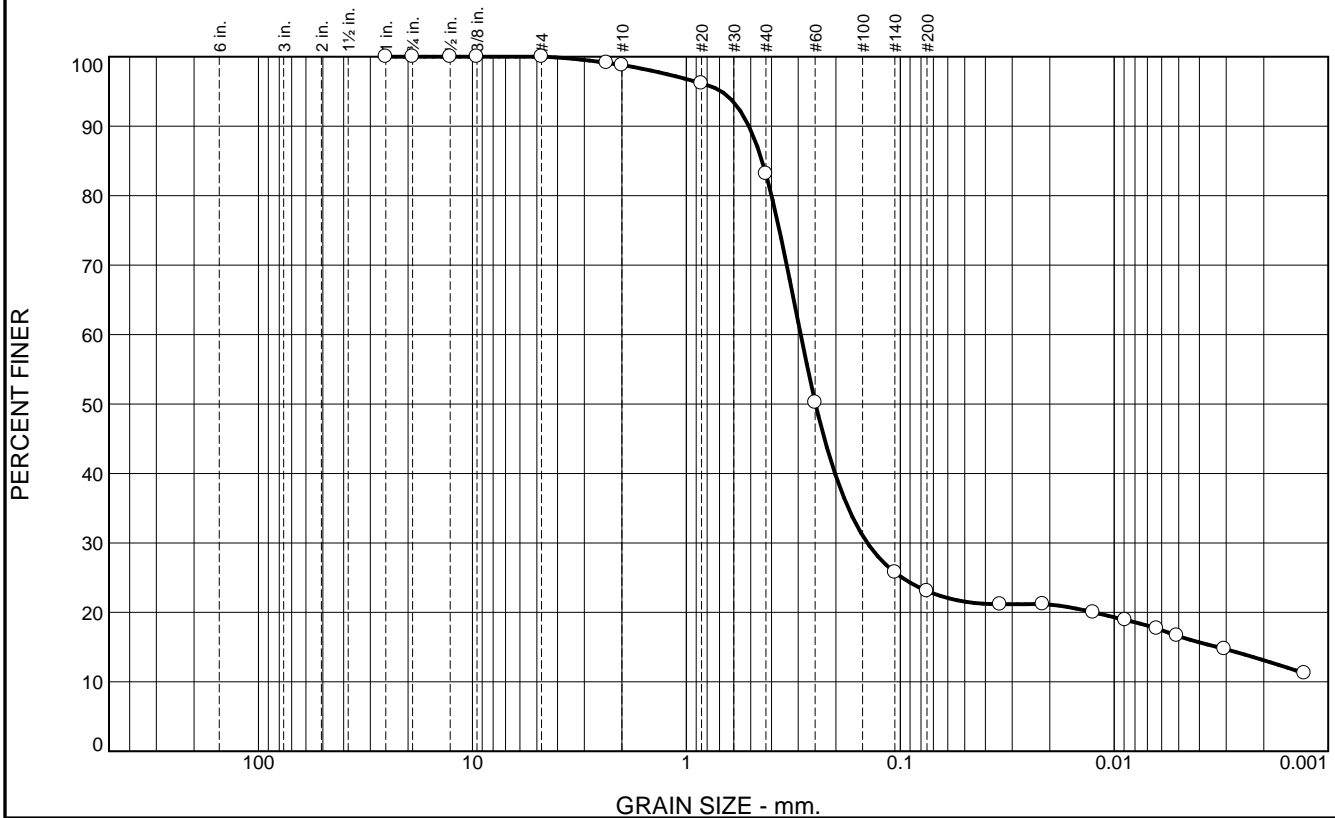
Depth: 3'-4'

Date: 2/5/2020

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Client: ARCHWAY SOLUTIONS  
Project: USACOE - MOBILE HARBOR W91278-19-D-0045  
Project No: M20-069              Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	1.2	15.6	60.1	6.5	16.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	99.1		
#10	98.8		
#20	96.2		
#40	83.2		
#60	50.2		
#140	25.8		
#200	23.1		

**Material Description**

GRAY SILTY SAND

**Atterberg Limits**

PL= 19      LL= 21      PI= 2

**Coefficients**

D<sub>90</sub>= 0.5103      D<sub>85</sub>= 0.4427      D<sub>60</sub>= 0.2923  
D<sub>50</sub>= 0.2490      D<sub>30</sub>= 0.1425      D<sub>15</sub>= 0.0033  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

MOISTURE CONTENT: 38.0%  
SPECIFIC GRAVITY: 2.67

\* (no specification provided)

Source of Sample: MHVBC-2-19

Depth: 6'-7'

Date: 2/5/2020

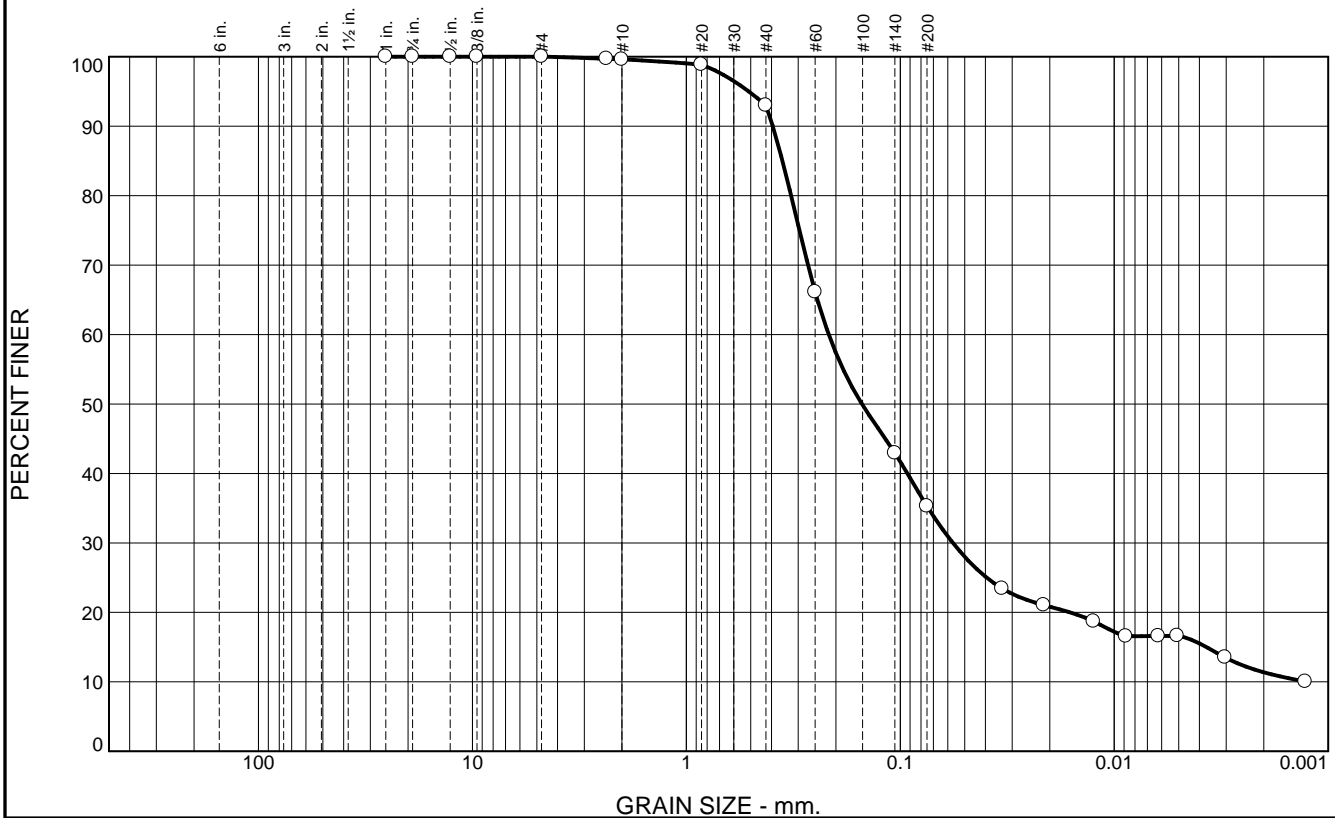
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SCIENCES**  
Mobile, Alabama

Client: ARCHWAY SOLUTIONS  
Project: USACOE - MOBILE HARBOR W91278-19-D-0045

Project No: M20-069

Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.4	6.6	57.7	18.7	16.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	99.7		
#10	99.6		
#20	98.9		
#40	93.0		
#60	66.1		
#140	42.9		
#200	35.3		

**Material Description**

GRAY SILTY SAND

**Atterberg Limits**

PL= 18      LL= 18      PI= NP

**Coefficients**

D<sub>90</sub>= 0.3944      D<sub>85</sub>= 0.3555      D<sub>60</sub>= 0.2160  
D<sub>50</sub>= 0.1511      D<sub>30</sub>= 0.0568      D<sub>15</sub>= 0.0037  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**

USCS= SM      AASHTO= A-2-4(0)

**Remarks**

MOISTURE CONTENT: 30.1%  
SPECIFIC GRAVITY: 2.73

\* (no specification provided)

Source of Sample: MHVBC-2-19

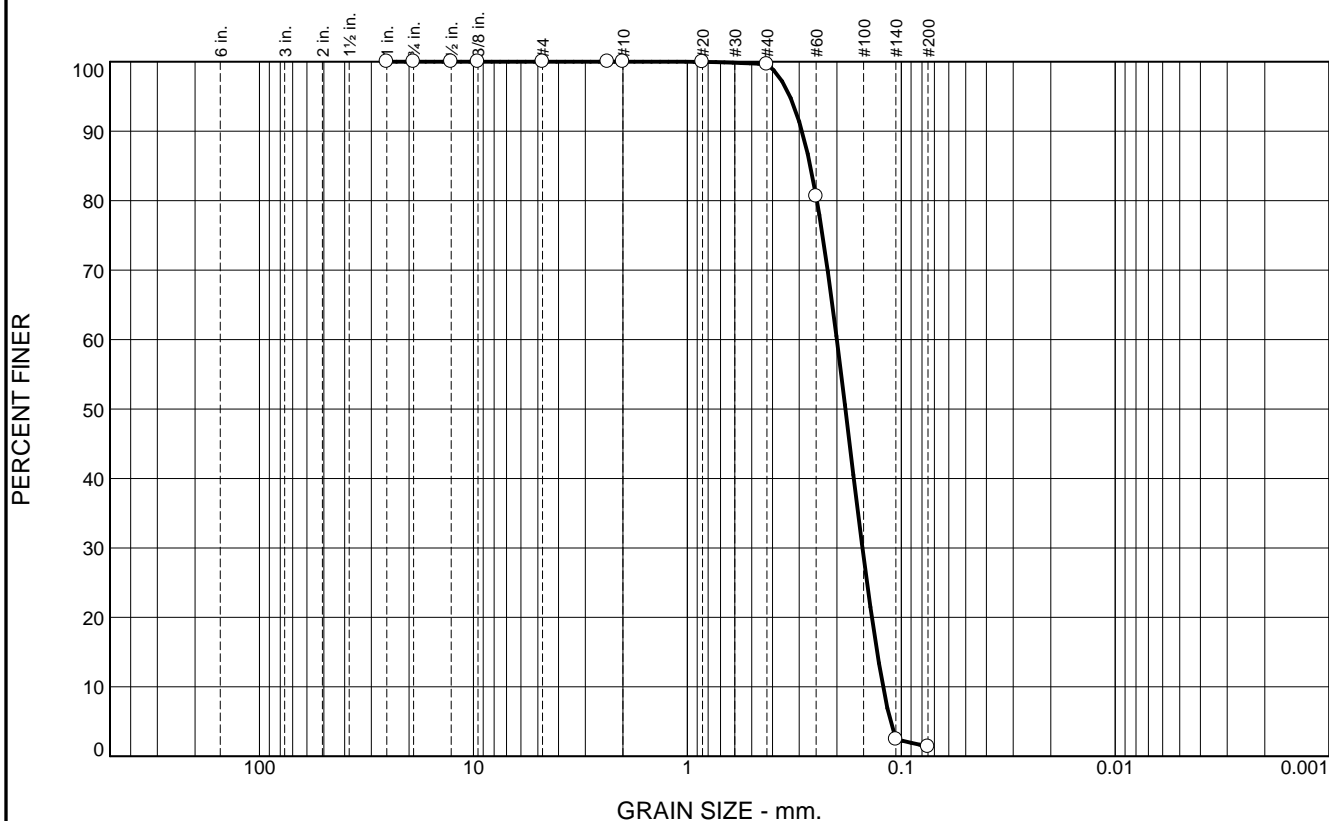
Depth: 10'-11'

Date: 2/5/2020

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SCIENCES  
Mobile, Alabama**

Client: ARCHWAY SOLUTIONS  
Project: USACOE - MOBILE HARBOR W91278-19-D-0045  
Project No: M20-069      Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.4	98.2	1.4	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	100.0		
#10	100.0		
#20	100.0		
#40	99.6		
#60	80.6		
#140	2.4		
#200	1.4		

**Material Description**

TAN SAND

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 0.2914              D<sub>85</sub>= 0.2663              D<sub>60</sub>= 0.2002  
D<sub>50</sub>= 0.1826              D<sub>30</sub>= 0.1519              D<sub>15</sub>= 0.1298  
D<sub>10</sub>= 0.1217              C<sub>u</sub>= 1.65                      C<sub>c</sub>= 0.95

**Classification**

USCS= SP                      AASHTO=

**Remarks**

MOISTURE CONTENT: 22.4%  
SPECIFIC GRAVITY: 2.77

\* (no specification provided)

Source of Sample: MHVBC-3-19

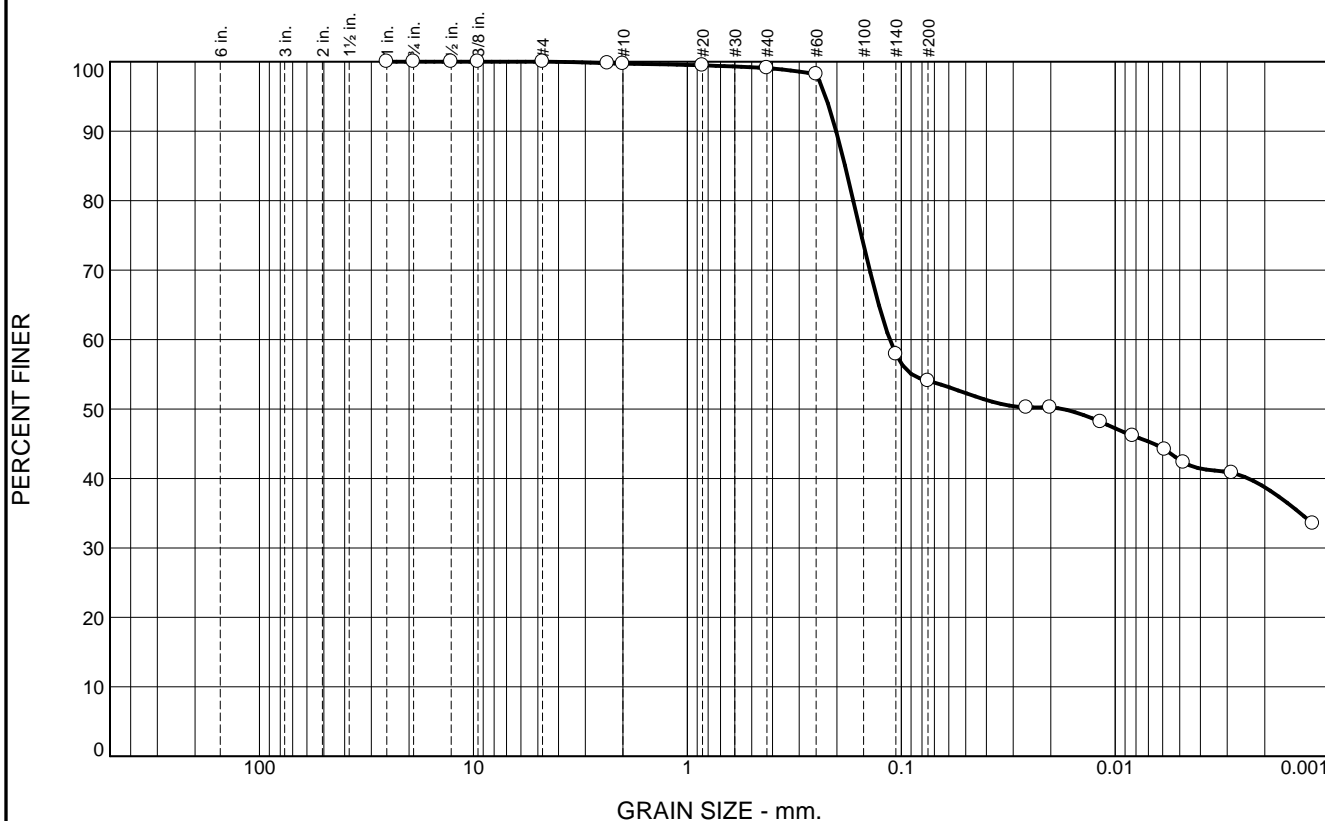
Depth: 12'-13'

Date: 2/10/2020

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Mobile, Alabama**

**Client:** ARCHWAY SOLUTIONS  
**Project:** USACOE - MOBILE HARBOR W91278-19-D-0045  
**Project No:** M20-069                      **Figure**

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	0.6	45.0	11.4	42.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	99.8		
#10	99.7		
#20	99.5		
#40	99.1		
#60	98.2		
#140	57.9		
#200	54.1		

**Material Description**

BROWN SILT

**Atterberg Limits**  
 PL= 30      LL= 41      PI= 11

**Coefficients**  
 D<sub>90</sub>= 0.2018      D<sub>85</sub>= 0.1833      D<sub>60</sub>= 0.1132  
 D<sub>50</sub>= 0.0177      D<sub>30</sub>=              D<sub>15</sub>=  
 D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

**Classification**  
 USCS= ML      AASHTO= A-7-5(4)

**Remarks**  
 MOISTURE CONTENT: 68.3%  
 ASSUMED SPEC. GRAVITY: 2.7

\* (no specification provided)

Source of Sample: MHVBC-3-19

Depth: 18'-19'

Date: 2/11/2020

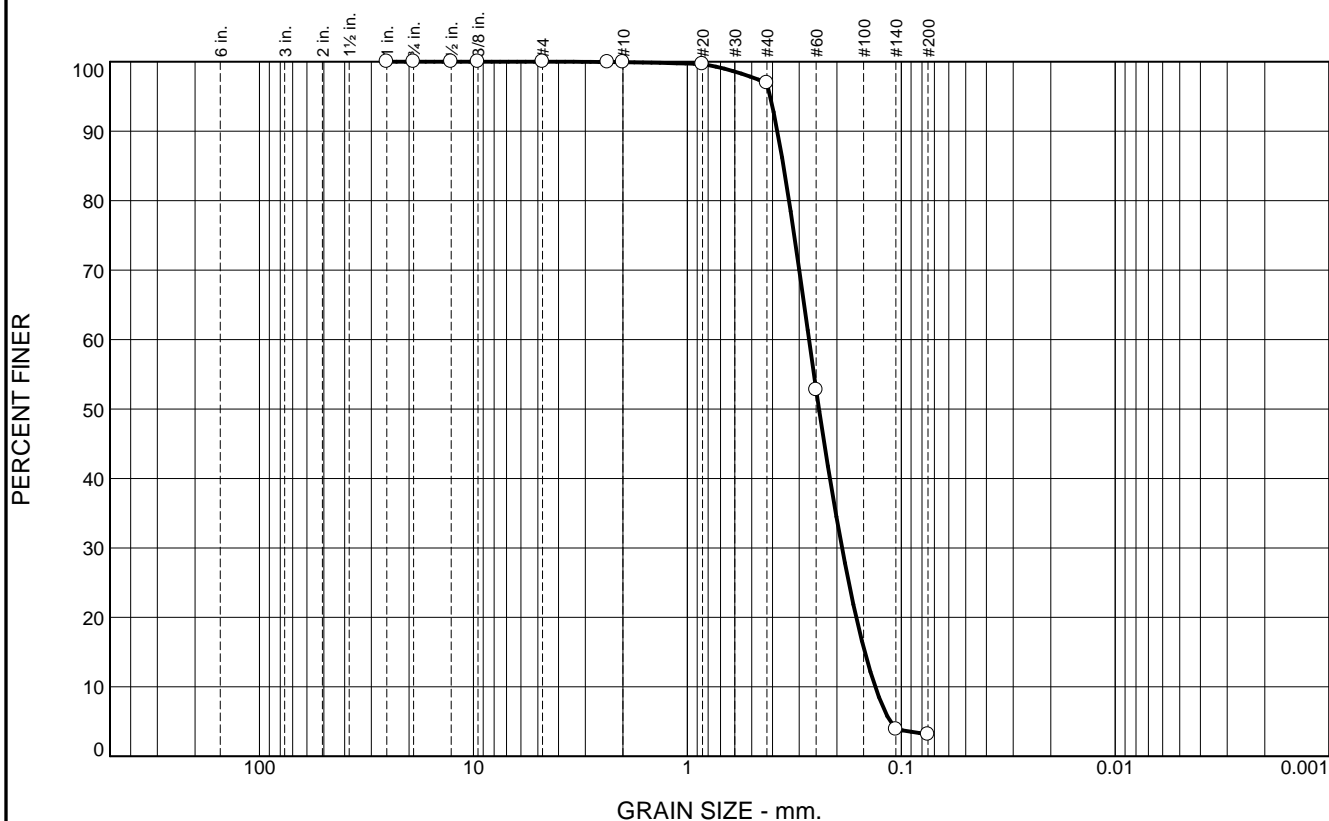
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SCIENCES**  
Mobile, Alabama

Client: ARCHWAY SOLUTIONS  
 Project: USACOE - MOBILE HARBOR W91278-19-D-0045

Project No: M20-069

Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	3.0	93.8	3.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	100.0		
#10	99.9		
#20	99.7		
#40	96.9		
#60	52.8		
#140	3.9		
#200	3.1		

**Material Description**

TAN SAND

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 0.3794              D<sub>85</sub>= 0.3553              D<sub>60</sub>= 0.2701

D<sub>50</sub>= 0.2425              D<sub>30</sub>= 0.1893              D<sub>15</sub>= 0.1481

D<sub>10</sub>= 0.1324              C<sub>u</sub>= 2.04                      C<sub>c</sub>= 1.00

**Classification**

USCS= SP                      AASHTO=

**Remarks**

MOISTURE CONTENT: 25.7%

SPECIFIC GRAVITY: 2.77

\* (no specification provided)

Source of Sample: MHVBC-4-19

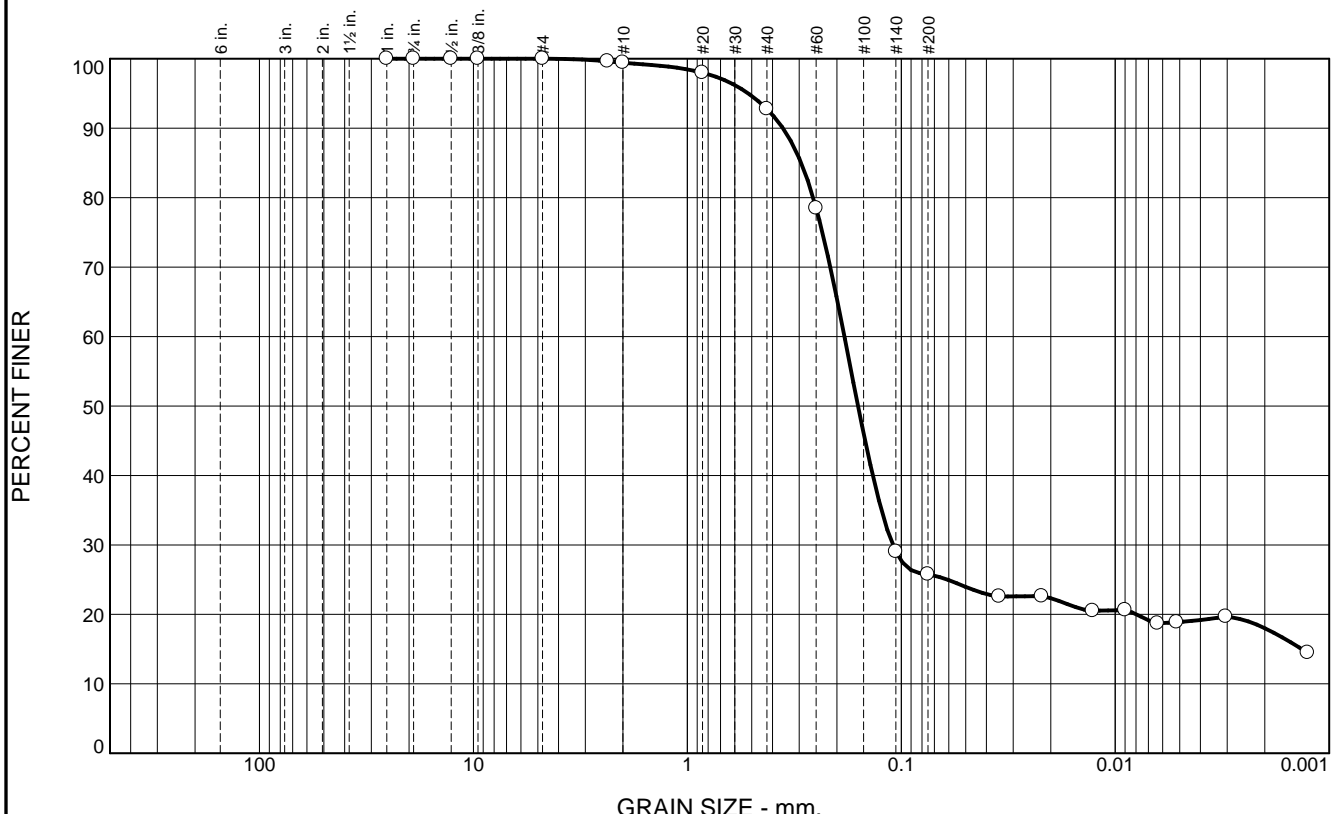
Depth: 14'-15'

Date: 2/11/2020

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Mobile, Alabama**

Client: ARCHWAY SOLUTIONS  
 Project: USACOE - MOBILE HARBOR W91278-19-D-0045  
 Project No: M20-069                      Figure

# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.6	6.7	66.9	6.9	18.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	99.6		
#10	99.4		
#20	98.0		
#40	92.7		
#60	78.5		
#140	29.0		
#200	25.8		

**Material Description**  
GRAY SILTY SAND

**Atterberg Limits**  
 PL= 20      LL= 22      PI= 2

**Coefficients**  
 D<sub>90</sub>= 0.3575      D<sub>85</sub>= 0.2939      D<sub>60</sub>= 0.1845  
 D<sub>50</sub>= 0.1593      D<sub>30</sub>= 0.1095      D<sub>15</sub>= 0.0013  
 D<sub>10</sub>=                  C<sub>u</sub>=                  C<sub>c</sub>=

**Classification**  
 USCS= SM      AASHTO= A-2-4(0)

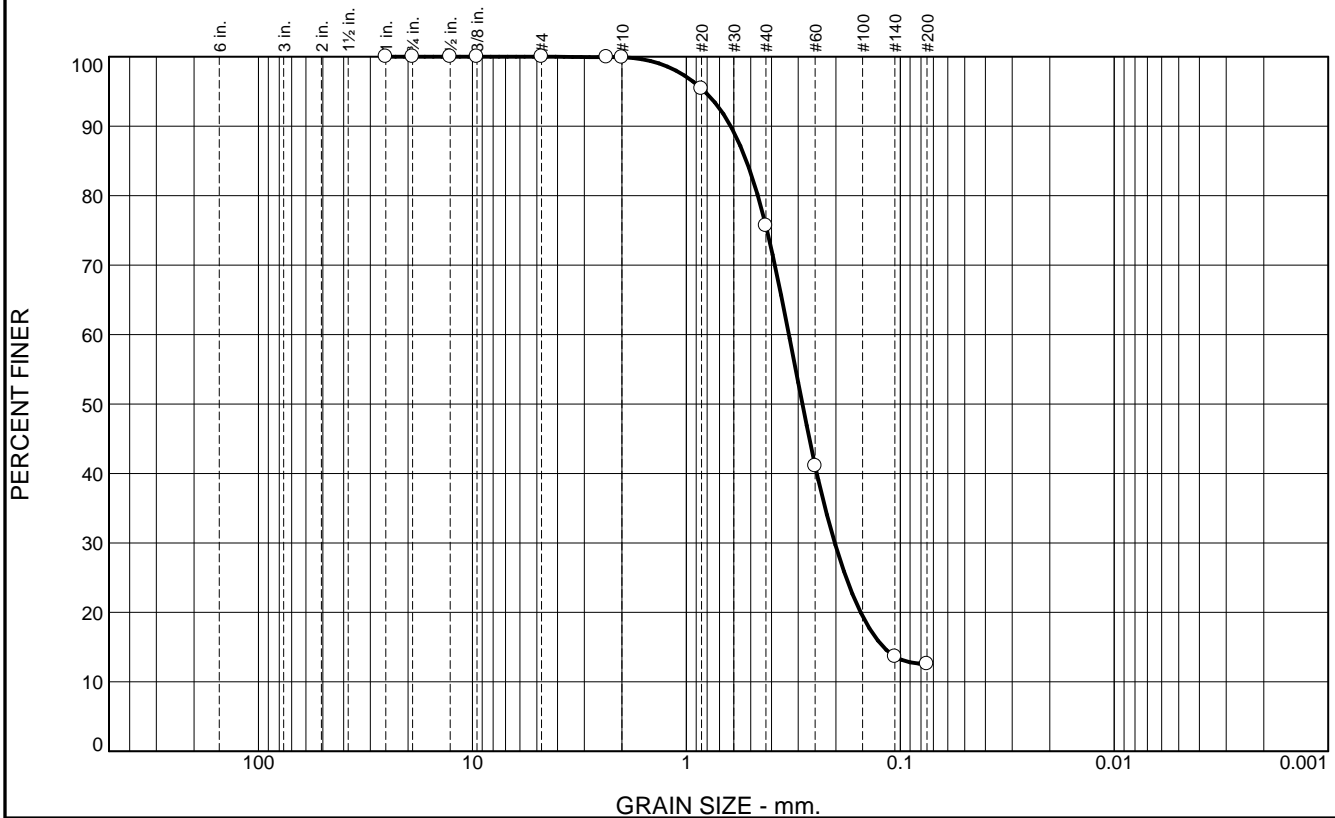
**Remarks**  
 MOISTURE CONTENT: 35.6%  
 ASSUMED SPEC. GRAVITY: 2.7

\* (no specification provided)

Source of Sample: MHVBC-5-19      Depth: 4'-5'      Date: 2/10/2020

<b>SOUTHERN EARTH SCIENCES</b> Mobile, Alabama	Client: ARCHWAY SOLUTIONS Project: USACOE - MOBILE HARBOR W91278-19-D-0045 Project No: M20-069	Figure
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# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	24.2	63.1	12.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	99.9		
#10	99.9		
#20	95.4		
#40	75.7		
#60	41.1		
#140	13.6		
#200	12.6		

**Material Description**

GRAY SILTY SAND

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 0.6206              D<sub>85</sub>= 0.5242              D<sub>60</sub>= 0.3317  
D<sub>50</sub>= 0.2869              D<sub>30</sub>= 0.2025              D<sub>15</sub>= 0.1198  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS= SM                      AASHTO=

**Remarks**

MOISTURE CONTENT: 24.4%  
SPECIFIC GRAVITY: 2.83

\* (no specification provided)

Source of Sample: MHVBC-5-19

Depth: 9'-10'

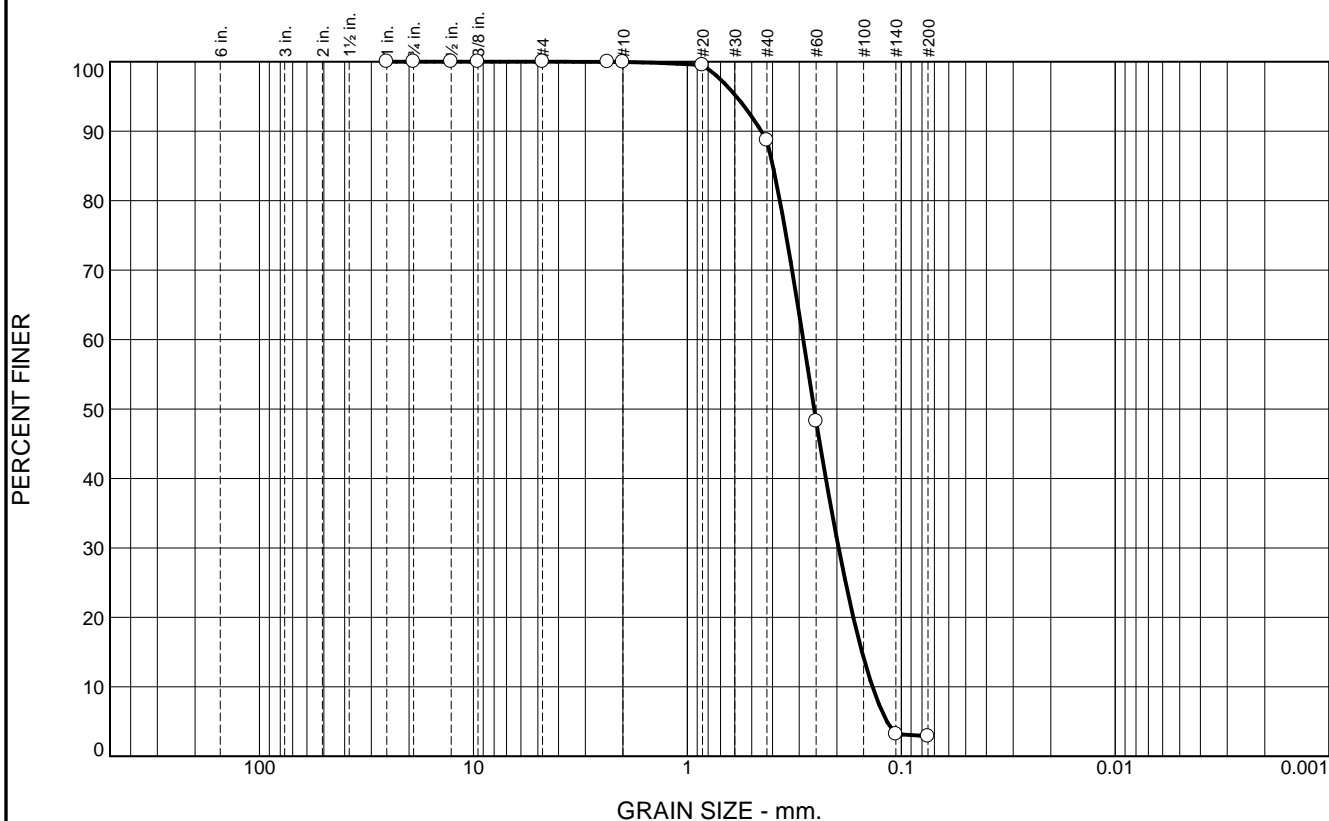
Date: 2/10/2020

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**Client:** ARCHWAY SOLUTIONS  
**Project:** USACOE - MOBILE HARBOR W91278-19-D-0045  
**Project No:** M20-069                      **Figure**



# Particle Size Distribution Report



% Cobbles	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	11.2	85.8	2.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100.0		
3/4"	100.0		
1/2"	100.0		
3/8"	100.0		
#4	100.0		
#8	100.0		
#10	99.9		
#20	99.5		
#40	88.7		
#60	48.2		
#140	3.2		
#200	2.9		

**Material Description**

BROWN SAND

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 0.4511              D<sub>85</sub>= 0.3982              D<sub>60</sub>= 0.2875  
 D<sub>50</sub>= 0.2554              D<sub>30</sub>= 0.1964              D<sub>15</sub>= 0.1526  
 D<sub>10</sub>= 0.1364              C<sub>u</sub>= 2.11                      C<sub>c</sub>= 0.98

**Classification**

USCS= SP                      AASHTO=

**Remarks**

MOISTURE CONTENT: 22.8%  
 SPECIFIC GRAVITY: 2.79

\* (no specification provided)

Source of Sample: MHVBC-5-19

Depth: 14'-15'

Date: 2/10/2020

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Client: ARCHWAY SOLUTIONS  
 Project: USACOE - MOBILE HARBOR W91278-19-D-0045  
 Project No: M20-069                      Figure

## SAMPLE SUMMARY

Project: Mobile Bay Dredge

Pace Project No.: 20142387

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20142387001	MHUBC 31-19 12.5-13.5	Solid	02/10/20 10:30	02/10/20 11:20
20142387002	MHUBC 33-19 16-17	Solid	02/10/20 10:30	02/10/20 11:20
20142387003	MHUBC 10-19 18-19	Solid	02/10/20 10:30	02/10/20 11:20
20142387004	MHUBC 6-19 6'-7'	Solid	02/10/20 10:30	02/10/20 11:20
20142387005	MHUBC 6-19 9'-10'	Solid	02/10/20 10:30	02/10/20 11:20
20142387006	MHUBC 7-19 7'-8'	Solid	02/10/20 10:30	02/10/20 11:20
20142387007	MHUBC 7-19 9'-10'	Solid	02/10/20 10:30	02/10/20 11:20
20142387008	MHUBC 6-19 14'-15'	Solid	02/10/20 10:30	02/10/20 11:20
20142387009	MHUBC 2-19 10'-11'	Solid	02/10/20 10:30	02/10/20 11:20
20142387010	MHUBC 10-19 3'-4'	Solid	02/10/20 10:30	02/10/20 11:20
20142387011	MHUBC 1-19 2'-3'	Solid	02/10/20 10:30	02/10/20 11:20
20142387012	MHUBC 57-19 6'-7'	Solid	02/10/20 10:30	02/10/20 11:20
20142387013	MHUBC 2-19 6'-7'	Solid	02/10/20 10:30	02/10/20 11:20
20142387014	MHUBC 2-19 3'-4'	Solid	02/10/20 10:30	02/10/20 11:20
20142387015	MHUBC 26-19 4'-5'	Solid	02/10/20 10:30	02/10/20 11:20
20142387016	MHUBC 24-19 9'-10'	Solid	02/10/20 10:30	02/10/20 11:20
20142387017	MHUBC 19-19 7'-8'	Solid	02/10/20 10:30	02/10/20 11:20
20142387018	MHUBC 14-19 4'-5'	Solid	02/10/20 10:30	02/10/20 11:20
20142387019	MHUBC 33-19 4'-5'	Solid	02/10/20 10:30	02/10/20 11:20
20142387020	MHUBC 17-19 3'-4'	Solid	02/10/20 10:30	02/10/20 11:20
20142387021	MHUBC 33-19 4'-5'	Solid	02/10/20 10:30	02/10/20 11:20
20142387022	MHUBC 15-19 8'-9'	Solid	02/10/20 10:30	02/10/20 11:20
20142387023	MHUBC 15-19 2'-3'	Solid	02/10/20 10:30	02/10/20 11:20
20142387024	MHUBC 12-19 7'-8'	Solid	02/10/20 10:30	02/10/20 11:20
20142387025	MHUBC 14-19 4'-5'	Solid	02/10/20 10:30	02/10/20 11:20
20142387026	MHUBC 21-19 7'-8'	Solid	02/10/20 10:30	02/10/20 11:20

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20142387001	MHUBC 31-19 12.5-13.5	SM 2540G	LBG	1	PASI-N
20142387002	MHUBC 33-19 16-17	SM 2540G	LBG	1	PASI-N
20142387003	MHUBC 10-19 18-19	SM 2540G	LBG	1	PASI-N
20142387004	MHUBC 6-19 6'-7'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387005	MHUBC 6-19 9'-10'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387006	MHUBC 7-19 7'-8'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387007	MHUBC 7-19 9'-10'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387008	MHUBC 6-19 14'-15'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387009	MHUBC 2-19 10'-11'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387010	MHUBC 10-19 3'-4'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387011	MHUBC 1-19 2'-3'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
20142387012	MHUBC 57-19 6'-7'	EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20142387013	MHUBC 2-19 6'-7'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387014	MHUBC 2-19 3'-4'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387015	MHUBC 26-19 4'-5'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387016	MHUBC 24-19 9'-10'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387017	MHUBC 19-19 7'-8'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387018	MHUBC 14-19 4'-5'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387019	MHUBC 33-19 4'-5'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387020	MHUBC 17-19 3'-4'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	CAC	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
20142387021	MHUBC 33-19 4'-5'	Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT

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### SAMPLE ANALYTE COUNT

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20142387022	MHUBC 15-19 8'-9'	ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	CAC	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
20142387023	MHUBC 15-19 2'-3'	ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
20142387024	MHUBC 12-19 7'-8'	ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
20142387025	MHUBC 14-19 4'-5'	ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
20142387026	MHUBC 21-19 7'-8'	ASA 10-3.3	MR1	1	PASI-MT
		EPA 9056A	NAB	1	PASI-MT
		ASTM D2974	NH1	1	PASI-MT
		Calculated	MR1	1	PASI-MT
		ASA 10-3.3	MR1	1	PASI-MT

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## ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 31-19 12.5-13.5**    **Lab ID: 20142387001**    Collected: 02/10/20 10:30    Received: 02/10/20 11:20    Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540G Total Volatile Solids</b>		Analytical Method: SM 2540G						
Total Volatile Solids	<b>42.7</b>	%	0.10	1		02/14/20 12:51		

**Sample: MHUBC 33-19 16-17**    **Lab ID: 20142387002**    Collected: 02/10/20 10:30    Received: 02/10/20 11:20    Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540G Total Volatile Solids</b>		Analytical Method: SM 2540G						
Total Volatile Solids	<b>44.4</b>	%	0.10	1		02/14/20 12:51		

**Sample: MHUBC 10-19 18-19**    **Lab ID: 20142387003**    Collected: 02/10/20 10:30    Received: 02/10/20 11:20    Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540G Total Volatile Solids</b>		Analytical Method: SM 2540G						
Total Volatile Solids	<b>12.2</b>	%	0.10	1		02/14/20 12:52		

**Sample: MHUBC 6-19 6'-7'**    **Lab ID: 20142387004**    Collected: 02/10/20 10:30    Received: 02/10/20 11:20    Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A    Preparation Method: EPA 300.0						
Sulfate	<b>514</b>	mg/kg	84.2	5	02/16/20 09:58	02/17/20 16:05	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>18.9</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>19200</b>	mg/L	6.4	1		02/19/20 14:07		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp.Conductance Saturated Paste	<b>30.0</b>	mmhos/cm	0.050	1		02/19/20 12:33		AL,N2

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 6-19 9'-10'**      **Lab ID: 20142387005**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>450</b>	mg/kg	82.3	5	02/16/20 09:58	02/17/20 16:23	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>18.7</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>16500</b>	mg/L	6.4	1		02/19/20 14:08		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>25.8</b>	mmhos/cm	0.050	1		02/19/20 12:34		AL,N2

**Sample: MHUBC 7-19 7'-8'**      **Lab ID: 20142387006**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>477</b>	mg/kg	80.0	5	02/16/20 09:58	02/17/20 16:41	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>19.1</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>22900</b>	mg/L	6.4	1		02/19/20 14:09		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>35.8</b>	mmhos/cm	0.050	1		02/19/20 12:35		AL,N2

**Sample: MHUBC 7-19 9'-10'**      **Lab ID: 20142387007**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>475</b>	mg/kg	86.3	5	02/16/20 09:58	02/17/20 17:36	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>19.1</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>24200</b>	mg/L	6.4	1		02/19/20 14:09		AL,N2

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 7-19 9'-10'**      **Lab ID: 20142387007**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>37.9</b>	mmhos/cm	0.050	1		02/19/20 12:37		AL,N2

**Sample: MHUBC 6-19 14'-15'**      **Lab ID: 20142387008**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>388</b>	mg/kg	82.7	5	02/16/20 09:58	02/17/20 17:54	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>18.3</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>17600</b>	mg/L	6.4	1		02/19/20 14:09		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>27.4</b>	mmhos/cm	0.050	1		02/19/20 12:39		AL,N2

**Sample: MHUBC 2-19 10'-11'**      **Lab ID: 20142387009**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>678</b>	mg/kg	81.1	5	02/16/20 09:58	02/17/20 18:13	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>23.3</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>17800</b>	mg/L	6.4	1		02/19/20 14:10		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>27.8</b>	mmhos/cm	0.050	1		02/19/20 12:42		AL,N2

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 10-19 3'-4'**      **Lab ID: 20142387010**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>576</b>	mg/kg	81.5	5	02/16/20 09:58	02/17/20 18:31	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>22.0</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>23100</b>	mg/L	6.4	1		02/19/20 14:10		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>36.1</b>	mmhos/cm	0.050	1		02/19/20 12:43		AL,N2

**Sample: MHUBC 1-19 2'-3'**      **Lab ID: 20142387011**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>396</b>	mg/kg	79.3	5	02/16/20 09:58	02/17/20 18:49	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>27.4</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>16900</b>	mg/L	6.4	1		02/19/20 14:10		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>26.4</b>	mmhos/cm	0.050	1		02/19/20 12:44		AL,N2

**Sample: MHUBC 57-19 6'-7'**      **Lab ID: 20142387012**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>35.8</b>	mg/kg	17.0	1	02/16/20 09:58	02/17/20 19:44	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>58.1</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>15900</b>	mg/L	6.4	1		02/19/20 14:11		AL,N2

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 57-19 6'-7'**      **Lab ID: 20142387012**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>24.9</b>	mmhos/cm	0.050	1		02/19/20 12:46		AL,N2

**Sample: MHUBC 2-19 6'-7'**      **Lab ID: 20142387013**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>417</b>	mg/kg	82.1	5	02/16/20 09:58	02/17/20 20:02	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>24.4</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>18100</b>	mg/L	6.4	1		02/19/20 14:11		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>28.3</b>	mmhos/cm	0.050	1		02/19/20 12:47		AL,N2

**Sample: MHUBC 2-19 3'-4'**      **Lab ID: 20142387014**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>ND</b>	mg/kg	17.2	1	02/16/20 09:58	02/16/20 20:34	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>33.5</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>15500</b>	mg/L	6.4	1		02/19/20 14:11		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>24.3</b>	mmhos/cm	0.050	1		02/19/20 12:48		AL,N2

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

Sample: MHUBC 26-19 4'-5'		Lab ID: 20142387015		Collected: 02/10/20 10:30		Received: 02/10/20 11:20		Matrix: Solid	
<i>Results reported on a "wet-weight" basis</i>									
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056A Preparation Method: EPA 300.0									
Sulfate	<b>133</b>	mg/kg	79.3	5	02/16/20 09:58	02/16/20 20:52	14808-79-8		
<b>Dry Weight, MT</b>									
Analytical Method: ASTM D2974									
Percent Moisture	<b>60.2</b>	%	0.10	1		02/17/20 08:28		AL,N2	
<b>Salinity</b>									
Analytical Method: Calculated									
Salinity (as dissolved solids)	<b>13600</b>	mg/L	6.4	1		02/19/20 14:12		AL,N2	
<b>ASA10-3.3 Specific Conductance</b>									
Analytical Method: ASA 10-3.3									
Sp.Conductance Saturated Paste	<b>21.2</b>	mmhos/cm	0.050	1		02/19/20 12:50		AL,N2	

Sample: MHUBC 24-19 9'-10'		Lab ID: 20142387016		Collected: 02/10/20 10:30		Received: 02/10/20 11:20		Matrix: Solid	
<i>Results reported on a "wet-weight" basis</i>									
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056A Preparation Method: EPA 300.0									
Sulfate	<b>1200</b>	mg/kg	82.3	5	02/16/20 09:58	02/16/20 21:10	14808-79-8		
<b>Dry Weight, MT</b>									
Analytical Method: ASTM D2974									
Percent Moisture	<b>57.6</b>	%	0.10	1		02/17/20 08:28		AL,N2	
<b>Salinity</b>									
Analytical Method: Calculated									
Salinity (as dissolved solids)	<b>12300</b>	mg/L	6.4	1		02/19/20 14:12		AL,N2	
<b>ASA10-3.3 Specific Conductance</b>									
Analytical Method: ASA 10-3.3									
Sp.Conductance Saturated Paste	<b>19.2</b>	mmhos/cm	0.050	1		02/19/20 12:51		AL,N2	

Sample: MHUBC 19-19 7'-8'		Lab ID: 20142387017		Collected: 02/10/20 10:30		Received: 02/10/20 11:20		Matrix: Solid	
<i>Results reported on a "wet-weight" basis</i>									
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
<b>9056 IC Anions</b>									
Analytical Method: EPA 9056A Preparation Method: EPA 300.0									
Sulfate	<b>72.7</b>	mg/kg	16.4	1	02/16/20 09:58	02/17/20 20:20	14808-79-8		
<b>Dry Weight, MT</b>									
Analytical Method: ASTM D2974									
Percent Moisture	<b>58.7</b>	%	0.10	1		02/17/20 08:28		AL,N2	
<b>Salinity</b>									
Analytical Method: Calculated									
Salinity (as dissolved solids)	<b>16000</b>	mg/L	6.4	1		02/19/20 14:12		AL,N2	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 19-19 7'-8'**      **Lab ID: 20142387017**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp.Conductance Saturated Paste	<b>25.0</b>	mmhos/cm	0.050	1		02/19/20 12:52		AL,N2

**Sample: MHUBC 14-19 4'-5'**      **Lab ID: 20142387018**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>157</b>	mg/kg	85.2	5	02/16/20 09:58	02/16/20 21:47	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>61.5</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>16900</b>	mg/L	6.4	1		02/19/20 14:13		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp.Conductance Saturated Paste	<b>26.4</b>	mmhos/cm	0.050	1		02/19/20 12:53		AL,N2

**Sample: MHUBC 33-19 4'-5'**      **Lab ID: 20142387019**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>724</b>	mg/kg	84.6	5	02/18/20 15:36	02/19/20 14:39	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>40.3</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>10200</b>	mg/L	6.4	1		02/19/20 14:13		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp.Conductance Saturated Paste	<b>15.9</b>	mmhos/cm	0.050	1		02/19/20 12:53		AL,N2

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 17-19 3'-4'**      **Lab ID: 20142387020**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>1210</b>	mg/kg	89.0	5	02/20/20 14:28	02/21/20 11:35	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>53.7</b>	%	0.10	1		02/17/20 08:43		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>15500</b>	mg/L	6.4	1		02/24/20 10:32		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>24.2</b>	mmhos/cm	0.050	1		02/24/20 10:32		AL,N2

**Sample: MHUBC 33-19 4'-5'**      **Lab ID: 20142387021**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>607</b>	mg/kg	79.6	5	02/16/20 09:58	02/17/20 20:39	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>40.6</b>	%	0.10	1		02/17/20 08:43		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>8070</b>	mg/L	6.4	1		02/19/20 14:13		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>12.6</b>	mmhos/cm	0.050	1		02/19/20 12:56		AL,N2

**Sample: MHUBC 15-19 8'-9'**      **Lab ID: 20142387022**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>76.6</b>	mg/kg	17.4	1	02/20/20 14:28	02/21/20 22:31	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>51.0</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>9560</b>	mg/L	6.4	1		02/24/20 10:33		AL,N2

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 15-19 8'-9'**      **Lab ID: 20142387022**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>14.9</b>	mmhos/cm	0.050	1		02/24/20 10:33		AL,N2

**Sample: MHUBC 15-19 2'-3'**      **Lab ID: 20142387023**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>726</b>	mg/kg	86.1	5	02/16/20 09:58	02/16/20 23:56	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>63.7</b>	%	0.10	1		02/17/20 08:28		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>15300</b>	mg/L	6.4	1		02/19/20 14:13		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>23.9</b>	mmhos/cm	0.050	1		02/19/20 12:59		AL,N2

**Sample: MHUBC 12-19 7'-8'**      **Lab ID: 20142387024**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

**Results reported on a "wet-weight" basis**

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b>		Analytical Method: EPA 9056A      Preparation Method: EPA 300.0						
Sulfate	<b>118</b>	mg/kg	17.4	1	02/15/20 14:22	02/16/20 09:15	14808-79-8	
<b>Dry Weight, MT</b>		Analytical Method: ASTM D2974						
Percent Moisture	<b>52.4</b>	%	0.10	1		02/17/20 08:43		AL,N2
<b>Salinity</b>		Analytical Method: Calculated						
Salinity (as dissolved solids)	<b>9030</b>	mg/L	6.4	1		02/19/20 14:14		AL,N2
<b>ASA10-3.3 Specific Conductance</b>		Analytical Method: ASA 10-3.3						
Sp. Conductance Saturated Paste	<b>14.1</b>	mmhos/cm	0.050	1		02/19/20 13:02		AL,N2

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### ANALYTICAL RESULTS

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

**Sample: MHUBC 14-19 4'-5'**      **Lab ID: 20142387025**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>495</b>	mg/kg	85.0	5	02/15/20 14:22	02/16/20 09:33	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>62.8</b>	%	0.10	1		02/17/20 08:43		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>20500</b>	mg/L	6.4	1		02/19/20 14:14		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>32.0</b>	mmhos/cm	0.050	1		02/19/20 13:20		AL,N2

**Sample: MHUBC 21-19 7'-8'**      **Lab ID: 20142387026**      Collected: 02/10/20 10:30      Received: 02/10/20 11:20      Matrix: Solid

*Results reported on a "wet-weight" basis*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>9056 IC Anions</b> Analytical Method: EPA 9056A      Preparation Method: EPA 300.0								
Sulfate	<b>45.5</b>	mg/kg	15.6	1	02/15/20 14:22	02/16/20 09:51	14808-79-8	
<b>Dry Weight, MT</b> Analytical Method: ASTM D2974								
Percent Moisture	<b>48.4</b>	%	0.10	1		02/17/20 08:43		AL,N2
<b>Salinity</b> Analytical Method: Calculated								
Salinity (as dissolved solids)	<b>8260</b>	mg/L	6.4	1		02/19/20 14:14		AL,N2
<b>ASA10-3.3 Specific Conductance</b> Analytical Method: ASA 10-3.3								
Sp.Conductance Saturated Paste	<b>12.9</b>	mmhos/cm	0.050	1		02/19/20 13:21		AL,N2

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge

Pace Project No.: 20142387

QC Batch: 659772

Analysis Method: EPA 9056A

QC Batch Method: EPA 300.0

Analysis Description: 9056 IC Anions

Associated Lab Samples: 20142387024, 20142387025, 20142387026

METHOD BLANK: 3541096

Matrix: Solid

Associated Lab Samples: 20142387024, 20142387025, 20142387026

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/kg	ND	17.3	02/15/20 19:21	

LABORATORY CONTROL SAMPLE: 3541097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/kg	100	102	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3541098 3541099

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		10506463003 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Sulfate	mg/kg	170	103	99.5	283	262	109	92	80-120	8	15		

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

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QC Batch: 660161 Analysis Method: EPA 9056A  
QC Batch Method: EPA 300.0 Analysis Description: 9056 IC Anions  
Associated Lab Samples: 20142387004, 20142387005, 20142387006, 20142387007, 20142387008, 20142387009, 20142387010, 20142387011, 20142387012, 20142387013, 20142387014, 20142387015, 20142387016, 20142387017, 20142387018, 20142387021, 20142387023

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METHOD BLANK: 3543206 Matrix: Solid  
Associated Lab Samples: 20142387004, 20142387005, 20142387006, 20142387007, 20142387008, 20142387009, 20142387010, 20142387011, 20142387012, 20142387013, 20142387014, 20142387015, 20142387016, 20142387017, 20142387018, 20142387019, 20142387020, 20142387021, 20142387022, 20142387023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/kg	ND	16.6	02/17/20 20:57	

LABORATORY CONTROL SAMPLE: 3543207

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/kg	99.3	99.6	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3543208 3543209

Parameter	Units	20142387006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/kg	477	126	113	711	699	96	96	80-120	2	15	

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

QC Batch: 660498 Analysis Method: EPA 9056A  
QC Batch Method: EPA 300.0 Analysis Description: 9056 IC Anions  
Associated Lab Samples: 20142387019

METHOD BLANK: 3544832 Matrix: Solid  
Associated Lab Samples: 20142387019, 20142387020, 20142387021, 20142387022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/kg	ND	17.0	02/19/20 10:40	

LABORATORY CONTROL SAMPLE: 3544833

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/kg	100	97.8	98	80-120	

LABORATORY CONTROL SAMPLE: 3544834

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/kg	100	98.4	98	80-120	

LABORATORY CONTROL SAMPLE: 3544835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/kg	101	99.3	99	80-120	

LABORATORY CONTROL SAMPLE: 3544836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/kg	100	98.7	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3544837 3544838

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result								
Sulfate	mg/kg	344	99.8	198	207	196	-137	-75	80-120	5	15	M1	

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

QC Batch: 661087 Analysis Method: EPA 9056A  
QC Batch Method: EPA 300.0 Analysis Description: 9056 IC Anions  
Associated Lab Samples: 20142387020, 20142387022

METHOD BLANK: 3547672 Matrix: Solid  
Associated Lab Samples: 20142387020, 20142387022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/kg	ND	17.0	02/21/20 10:59	

LABORATORY CONTROL SAMPLE: 3547674

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/kg	102	106	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3547675 3547677

Parameter	Units	10508184003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/kg	113	121	119	242	242	107	109	80-120	0	15	

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge

Pace Project No.: 20142387

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QC Batch: 660331 Analysis Method: ASTM D2974  
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 20142387004, 20142387005, 20142387006, 20142387007, 20142387008, 20142387009, 20142387010, 20142387011, 20142387012, 20142387013, 20142387014, 20142387015, 20142387016, 20142387017, 20142387018, 20142387019, 20142387022, 20142387023

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SAMPLE DUPLICATE: 3544268

Parameter	Units	20142387004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.9	19.1	1	30	AL,N2

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SAMPLE DUPLICATE: 3544269

Parameter	Units	20142387012 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	58.1	57.4	1	30	AL,N2

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**QUALITY CONTROL DATA**

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

QC Batch: 660333 Analysis Method: ASTM D2974  
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 20142387020, 20142387021, 20142387024, 20142387025, 20142387026

SAMPLE DUPLICATE: 3544272

Parameter	Units	10508380004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.5	6.5	1	30	AL,N2

SAMPLE DUPLICATE: 3544306

Parameter	Units	20142387024 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	52.4	52.5	0	30	AL,N2

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

QC Batch: 660803 Analysis Method: ASA 10-3.3  
QC Batch Method: ASA 10-3.3 Analysis Description: ASA 10-3.3 Specific Conductance  
Associated Lab Samples: 20142387004, 20142387005, 20142387006, 20142387007, 20142387008, 20142387009, 20142387010, 20142387011, 20142387012, 20142387013, 20142387014, 20142387015, 20142387016, 20142387017, 20142387018, 20142387019, 20142387021, 20142387023

METHOD BLANK: 3546394 Matrix: Water  
Associated Lab Samples: 20142387004, 20142387005, 20142387006, 20142387007, 20142387008, 20142387009, 20142387010, 20142387011, 20142387012, 20142387013, 20142387014, 20142387015, 20142387016, 20142387017, 20142387018, 20142387019, 20142387020, 20142387021, 20142387022, 20142387023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sp.Conductance Saturated Paste	mmhos/cm	ND	0.050	02/19/20 12:32	AL,N2

LABORATORY CONTROL SAMPLE: 3546395

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sp.Conductance Saturated Paste	mmhos/cm	4.3	4.0	95	80-120	AL,N2

SAMPLE DUPLICATE: 3546396

Parameter	Units	20142387014 Result	Dup Result	RPD	Max RPD	Qualifiers
Sp.Conductance Saturated Paste	mmhos/cm	24.3	23.5	3	20	AL,N2

SAMPLE DUPLICATE: 3546397

Parameter	Units	20142387021 Result	Dup Result	RPD	Max RPD	Qualifiers
Sp.Conductance Saturated Paste	mmhos/cm	12.6	13.0	3	20	AL,N2

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

QC Batch: 660807 Analysis Method: ASA 10-3.3  
QC Batch Method: ASA 10-3.3 Analysis Description: ASA 10-3.3 Specific Conductance  
Associated Lab Samples: 20142387024, 20142387025, 20142387026

METHOD BLANK: 3546411 Matrix: Water  
Associated Lab Samples: 20142387024, 20142387025, 20142387026

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sp. Conductance Saturated Paste	mmhos/cm	ND	0.050	02/19/20 13:01	AL, N2

LABORATORY CONTROL SAMPLE: 3546412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sp. Conductance Saturated Paste	mmhos/cm	4.3	4.6	107	80-120	AL, N2

SAMPLE DUPLICATE: 3546413

Parameter	Units	20142387026 Result	Dup Result	RPD	Max RPD	Qualifiers
Sp. Conductance Saturated Paste	mmhos/cm	12.9	14.2	10	20	AL, N2

SAMPLE DUPLICATE: 3546414

Parameter	Units	10507764001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sp. Conductance Saturated Paste	mmhos/cm	2.3	2.2	3	20	AL, N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge

Pace Project No.: 20142387

QC Batch: 661581

Analysis Method: ASA 10-3.3

QC Batch Method: ASA 10-3.3

Analysis Description: ASA 10-3.3 Specific Conductance

Associated Lab Samples: 20142387020, 20142387022

METHOD BLANK: 3550534

Matrix: Water

Associated Lab Samples: 20142387020, 20142387022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sp.Conductance Saturated Paste	mmhos/cm	ND	0.050	02/24/20 10:31	AL,N2

LABORATORY CONTROL SAMPLE: 3550535

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sp.Conductance Saturated Paste	mmhos/cm	4.3	4.4	103	80-120	AL,N2

SAMPLE DUPLICATE: 3550536

Parameter	Units	10509056002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sp.Conductance Saturated Paste	mmhos/cm	6.0	5.4	10	20	AL,N2

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### QUALITY CONTROL DATA

Project: Mobile Bay Dredge

Pace Project No.: 20142387

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QC Batch: 175443                      Analysis Method: SM 2540G  
QC Batch Method: SM 2540G          Analysis Description: 2540G Total Volatile Solids  
Associated Lab Samples: 20142387001, 20142387002, 20142387003

---

METHOD BLANK: 799341                      Matrix: Solid

Associated Lab Samples: 20142387001, 20142387002, 20142387003

---

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Volatile Solids	%	ND	0.10	02/14/20 12:45	

---

SAMPLE DUPLICATE: 799342

---

Parameter	Units	20142387001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Volatile Solids	%	42.7	40.3	6	20	

---

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## QUALIFIERS

Project: Mobile Bay Dredge

Pace Project No.: 20142387

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

### LABORATORIES

PASI-MT Pace Analytical Services - Montana

PASI-N Pace Analytical Services - New Orleans

### ANALYTE QUALIFIERS

AL The lab does not hold A2LA accreditation for this parameter.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20142387004	MHUBC 6-19 6'-7'	EPA 300.0	660161	EPA 9056A	660230
20142387005	MHUBC 6-19 9'-10'	EPA 300.0	660161	EPA 9056A	660230
20142387006	MHUBC 7-19 7'-8'	EPA 300.0	660161	EPA 9056A	660230
20142387007	MHUBC 7-19 9'-10'	EPA 300.0	660161	EPA 9056A	660230
20142387008	MHUBC 6-19 14'-15'	EPA 300.0	660161	EPA 9056A	660230
20142387009	MHUBC 2-19 10'-11'	EPA 300.0	660161	EPA 9056A	660230
20142387010	MHUBC 10-19 3'-4'	EPA 300.0	660161	EPA 9056A	660230
20142387011	MHUBC 1-19 2'-3'	EPA 300.0	660161	EPA 9056A	660230
20142387012	MHUBC 57-19 6'-7'	EPA 300.0	660161	EPA 9056A	660230
20142387013	MHUBC 2-19 6'-7'	EPA 300.0	660161	EPA 9056A	660230
20142387014	MHUBC 2-19 3'-4'	EPA 300.0	660161	EPA 9056A	660230
20142387015	MHUBC 26-19 4'-5'	EPA 300.0	660161	EPA 9056A	660230
20142387016	MHUBC 24-19 9'-10'	EPA 300.0	660161	EPA 9056A	660230
20142387017	MHUBC 19-19 7'-8'	EPA 300.0	660161	EPA 9056A	660230
20142387018	MHUBC 14-19 4'-5'	EPA 300.0	660161	EPA 9056A	660230
20142387019	MHUBC 33-19 4'-5'	EPA 300.0	660498	EPA 9056A	660815
20142387020	MHUBC 17-19 3'-4'	EPA 300.0	661087	EPA 9056A	661294
20142387021	MHUBC 33-19 4'-5'	EPA 300.0	660161	EPA 9056A	660230
20142387022	MHUBC 15-19 8'-9'	EPA 300.0	661087	EPA 9056A	661294
20142387023	MHUBC 15-19 2'-3'	EPA 300.0	660161	EPA 9056A	660230
20142387024	MHUBC 12-19 7'-8'	EPA 300.0	659772	EPA 9056A	660222
20142387025	MHUBC 14-19 4'-5'	EPA 300.0	659772	EPA 9056A	660222
20142387026	MHUBC 21-19 7'-8'	EPA 300.0	659772	EPA 9056A	660222
20142387004	MHUBC 6-19 6'-7'	ASTM D2974	660331		
20142387005	MHUBC 6-19 9'-10'	ASTM D2974	660331		
20142387006	MHUBC 7-19 7'-8'	ASTM D2974	660331		
20142387007	MHUBC 7-19 9'-10'	ASTM D2974	660331		
20142387008	MHUBC 6-19 14'-15'	ASTM D2974	660331		
20142387009	MHUBC 2-19 10'-11'	ASTM D2974	660331		
20142387010	MHUBC 10-19 3'-4'	ASTM D2974	660331		
20142387011	MHUBC 1-19 2'-3'	ASTM D2974	660331		
20142387012	MHUBC 57-19 6'-7'	ASTM D2974	660331		
20142387013	MHUBC 2-19 6'-7'	ASTM D2974	660331		
20142387014	MHUBC 2-19 3'-4'	ASTM D2974	660331		
20142387015	MHUBC 26-19 4'-5'	ASTM D2974	660331		
20142387016	MHUBC 24-19 9'-10'	ASTM D2974	660331		
20142387017	MHUBC 19-19 7'-8'	ASTM D2974	660331		
20142387018	MHUBC 14-19 4'-5'	ASTM D2974	660331		
20142387019	MHUBC 33-19 4'-5'	ASTM D2974	660331		
20142387020	MHUBC 17-19 3'-4'	ASTM D2974	660333		
20142387021	MHUBC 33-19 4'-5'	ASTM D2974	660333		
20142387022	MHUBC 15-19 8'-9'	ASTM D2974	660331		
20142387023	MHUBC 15-19 2'-3'	ASTM D2974	660331		
20142387024	MHUBC 12-19 7'-8'	ASTM D2974	660333		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20142387025	MHUBC 14-19 4'-5'	ASTM D2974	660333		
20142387026	MHUBC 21-19 7'-8'	ASTM D2974	660333		
20142387004	MHUBC 6-19 6'-7'	Calculated	660892		
20142387005	MHUBC 6-19 9'-10'	Calculated	660892		
20142387006	MHUBC 7-19 7'-8'	Calculated	660892		
20142387007	MHUBC 7-19 9'-10'	Calculated	660892		
20142387008	MHUBC 6-19 14'-15'	Calculated	660892		
20142387009	MHUBC 2-19 10'-11'	Calculated	660892		
20142387010	MHUBC 10-19 3'-4'	Calculated	660892		
20142387011	MHUBC 1-19 2'-3'	Calculated	660892		
20142387012	MHUBC 57-19 6'-7'	Calculated	660892		
20142387013	MHUBC 2-19 6'-7'	Calculated	660892		
20142387014	MHUBC 2-19 3'-4'	Calculated	660892		
20142387015	MHUBC 26-19 4'-5'	Calculated	660892		
20142387016	MHUBC 24-19 9'-10'	Calculated	660892		
20142387017	MHUBC 19-19 7'-8'	Calculated	660892		
20142387018	MHUBC 14-19 4'-5'	Calculated	660892		
20142387019	MHUBC 33-19 4'-5'	Calculated	660892		
20142387020	MHUBC 17-19 3'-4'	Calculated	661686		
20142387021	MHUBC 33-19 4'-5'	Calculated	660892		
20142387022	MHUBC 15-19 8'-9'	Calculated	661686		
20142387023	MHUBC 15-19 2'-3'	Calculated	660892		
20142387024	MHUBC 12-19 7'-8'	Calculated	660894		
20142387025	MHUBC 14-19 4'-5'	Calculated	660894		
20142387026	MHUBC 21-19 7'-8'	Calculated	660894		
20142387004	MHUBC 6-19 6'-7'	ASA 10-3.3	660803		
20142387005	MHUBC 6-19 9'-10'	ASA 10-3.3	660803		
20142387006	MHUBC 7-19 7'-8'	ASA 10-3.3	660803		
20142387007	MHUBC 7-19 9'-10'	ASA 10-3.3	660803		
20142387008	MHUBC 6-19 14'-15'	ASA 10-3.3	660803		
20142387009	MHUBC 2-19 10'-11'	ASA 10-3.3	660803		
20142387010	MHUBC 10-19 3'-4'	ASA 10-3.3	660803		
20142387011	MHUBC 1-19 2'-3'	ASA 10-3.3	660803		
20142387012	MHUBC 57-19 6'-7'	ASA 10-3.3	660803		
20142387013	MHUBC 2-19 6'-7'	ASA 10-3.3	660803		
20142387014	MHUBC 2-19 3'-4'	ASA 10-3.3	660803		
20142387015	MHUBC 26-19 4'-5'	ASA 10-3.3	660803		
20142387016	MHUBC 24-19 9'-10'	ASA 10-3.3	660803		
20142387017	MHUBC 19-19 7'-8'	ASA 10-3.3	660803		
20142387018	MHUBC 14-19 4'-5'	ASA 10-3.3	660803		
20142387019	MHUBC 33-19 4'-5'	ASA 10-3.3	660803		
20142387020	MHUBC 17-19 3'-4'	ASA 10-3.3	661581		
20142387021	MHUBC 33-19 4'-5'	ASA 10-3.3	660803		
20142387022	MHUBC 15-19 8'-9'	ASA 10-3.3	661581		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Mobile Bay Dredge  
Pace Project No.: 20142387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20142387023	MHUBC 15-19 2'-3'	ASA 10-3.3	660803		
20142387024	MHUBC 12-19 7'-8'	ASA 10-3.3	660807		
20142387025	MHUBC 14-19 4'-5'	ASA 10-3.3	660807		
20142387026	MHUBC 21-19 7'-8'	ASA 10-3.3	660807		
20142387001	MHUBC 31-19 12.5-13.5	SM 2540G	175443		
20142387002	MHUBC 33-19 16-17	SM 2540G	175443		
20142387003	MHUBC 10-19 18-19	SM 2540G	175443		

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APPENDIX B  
ENVIRONMENTAL COMPLIANCE

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# **Turtle Trawl Net Specifications**

## 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

# **ODESS System Requirements and Forms**

## HARDWARE REQUIREMENTS FOR THE ODESS SYSTEM

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.

### 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:

<b>Tablet Hardware Component</b>	<b>Specification</b>
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

### 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.

## 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](mailto: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:

<b>Software</b>	<b>Specification</b>
Operating System	Windows 10, Contractor-installed
Browser**	Chrome, Internet Explorer, Contractor-installed
ODESS Software	Field Collector (FC) tool, USACE ODESS Support Installed
Remote Access Software	Team Viewer, USACE ODESS Support-installed

\*\*Latest version recommended, Chrome is preferred



## Operations and Dredging Endangered Species System (ODESS) USACE Sea Turtle Deflector Checklist for Hopper Dredges for USACE and USACE/Army-Permitted Projects

---

1. Read the 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 spec or permit may be different.)
2. Read the Biological Opinion and any USACE Protocol, if available.
3. Develop a list of inspection requirements:
  - a. Deflector leading edge angle (90° or less).
  - b. Approach angle or leading edge plowing depth (6" or more).
  - c. Aft rigid attachment of the deflector to the draghead (hinged or trunnion).
  - d. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
  - e. Opening between draghead and deflector (4" x 4" max).
  - f. Dredged material screening requirement (yes/no).
  - g. Screen type requirement (inflow, overflow, or both).
  - h. Inflow basket screen openings (4" x 4" max) and dredged material screening (100%).
  - i. Lighting of the inflow and overflow screens and proper access for cleaning (must meet EM 385-1-1).
  - j. UXO (Unexploded Ordnance) screening in use (yes/no).
  - k. Structural design of the deflector (per the approved deflector submittal).
  - l. Dredge operational requirements (starting/stopping the dredge pump, draghead plugging, raising the draghead, turning the dredge).

- m. Dredging Quality Management (DQM) dredging data recording requirement. Is dredging data recording (drag elevation, slurry density, and velocity) required by specs or permit? If so, is it being collected, is DQM turned on, and is data being submitted?
  - n. Turtle trawling requirement. Is turtle trawling required by specs or permit? If so, is it being performed?
  - o. Turtle observer requirements (12 or 24 hours).
  - p. A copy of the approved turtle deflector submittal is on board the vessel.
  - q. Copies of the contract plans and specs or the Dept. of the Army permit are on board the vessel.
4. Review the turtle deflector submittal. (Do not allow dredging to start until the submittal is approved.)
- a. Structural soundness.
  - b. Deflector leading edge angle (90° or less).
  - c. Approach angles submitted for the project's dredging depths.
  - d. 4" x 4" opening between the deflector and the draghead.
  - e. Aft rigid deflector attachment to draghead (hinged or trunnion).
  - f. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
5. Ensure that the Contractor Quality Control (CQC) performs a pre-dredging inspection. The CQC is required to review and inspect all items in section 3.
6. Ensure that the CQC performs a startup-dredging inspection:
- a. The CQC is required to check the turtle deflector to see if the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
  - b. The CQC is required to ensure that the drag tenders are operating the dredge pump and draghead in accordance with the specs/permit.
  - c. The CQC should perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°.
  - d. The CQC should note the inspection results in the Quality Control (QC) Daily Report.
7. Quality Assurance (QA) should perform a dredging operation inspection soon after the dredge starts dredging:
- a. Review and inspect all items in section 3.

- b. Inspect the turtle deflector to ensure that the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
- c. Require the contractor to perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°. (While over-penetration of the deflector may reduce production and increase fuel consumption of the dredge, it is allowed.)
- d. Ride the dredge through at least one dredging cycle (from dredging to the dump and then back to the dredge site).
- e. Watch the dragtender to ensure that he/she is operating the dredging equipment in accordance with the plans and specs:
  - i Starting the dredge pump only when the draghead is firmly on the bottom by watching the slurry specific gravity and swell compensator.
  - ii Reducing the slurry velocity to the dredge pump idle speed velocity before raising the draghead off the bottom.
  - iii Consistently maintaining the approach angle to a tolerance of +0 to -4° whenever the draghead is on the bottom and the dredge pump is operating
  - iv Raising the draghead off the bottom due to draghead plugging or ship crabbing.
- f. Ensure that the lockout tagout procedure for cleaning the inflow and overflow screens meets EM 385-1-1.
- g. Talk to the turtle observers to ensure that they are aware of contract and permit requirements and that they are inspecting the screens and deflectors and reporting any required maintenance to the dredge personnel. Also ensure that correct turtle observer forms are being used and filled out properly.
- h. Talk to the dredge Captain about maintaining the screens and deflectors.
- i. Ensure that DQM data is being sent to the National Dredging Quality Management Program.
- j. Note all pre-dredge/post-dredge and followup inspections in the QA and the QC Daily Reports.







# Operations & Dredging Endangered Species System (ODESS)



US Army Corps  
of Engineers®

## Dredge Load

District	Project	Contract	Dredge	Dredging Company
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Load Number (Required)/Date	Start Date (Required)	Start Time (24 hours) (Required)	Stop Date (Required)	Stop Time (24 hours) (Required)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Port Screen Condition**

- Excellent
- Good
- Fair
- Bad

**Starboard Screen Condition**

- Excellent
- Good
- Fair
- Bad

**Overflow Screen Condition**

- Excellent
- Good
- Fair
- Bad

**Inflow Screen Percent**

- 25%
- 50%
- 75%
- 100%

**Overflow Screen Percent**

- 25%
- 50%
- 75%
- 100%

**Other Screen Percent**

- 25%
- 50%
- 75%
- 100%

**# Dragheads Used**

**Draghead Length (ft)**

**Draghead Width (ft)**

**Draghead Type**

- California Style
- IHC
- IHC + Water Injection
- Wild Dragon
- Other (Specify)

**Deflector Condition**

- Good
- Fair
- Poor
- None

**UXO Screening in Use?**

- Yes
- No

**Material Type**

- Clay
- Consolidated Material
- Mud
- Other
- Rock
- Sand - Course
- Sand - Fine
- Sand - Medium
- Sand - Mixed
- Shell
- Silt
- Unknown

**Weather Conditions**

- Sunny
- Cloudy
- Partly Cloudy

**Beaufort Sea Scale**

- 0 (0-1 kn, 0-0 ft)
- 1 (1-3 kn, 0-1 ft)
- 2 (4-6 kn, 1-2 ft)
- 3 (6-10 kn, 2-3.5 ft)
- 4 (10-16 kn, 3.5-6 ft)
- 5 (16-21 kn, 6-9 ft)
- 6 (21-27 kn, 9-13 ft)
- 7 (27-33 kn, 13-19 ft)
- 8 (33-40 kn, 19-25 ft)
- 9 (40-47 kn, 25-32 ft)
- 10 (47-55 kn, 32-41 ft)
- 11 (55-63 kn, 41-52 ft)
- 12 (>63 kn, >52 ft)

**Wave Height (ft)**

**Wind Speed (k)**

**Wind Direction (°)**

**Tide**

- High
- Low
- Slack
- Rising
- Falling
- Unknown

**Air Temp (°C)**

**Surface Water Temp (°C)**

**Mid-Depth Water Temp (°C)**

**Bottom Water Temp (°C)**

**Trawling Being Conducted?**

- Yes
- No

**Any Incidents Involving  
Endangered or Protected  
Species?**

- Yes
- No

**If Yes, Which Species?  
(Complete a Turtle or Sturgeon  
incident form)**

- Marine Mammal
- Sea Turtle
- Sturgeon
- Other
- Unknown

**Whale Sighting Notification  
Received?**

- Yes
- No

**Alert Sent to District?**

- Yes
- No

**Screen Contents**

1 Port Screen  
Contents (incl. # of each item)

2 Starboard Screen  
Contents (incl. # of each item)

3 Overflow Screens  
Contents (incl. # of each item)

4 Other Screen or Location  
(Specify)

Contents (incl. # of each item)

5 Port Draghead  
Contents (incl. # of each item)

6 Starboard Draghead  
Contents (incl. # of each item)

**Comments**

**# Observers Used/24 Hours**

**% Monitoring/Project**

- None
- 25%
- 50%
- 75%
- 100%

**Observer(s) Name(s) (Req; Print)**

**Observer(s) Signature(s)**

**Observer(s) Company**

**Notes:**

- **Screen Contents**—Examples include sea turtle (sp.), sturgeon (sp.), shark (sp.), ray (sp.), other fish of note (sp.), horseshoe crab, blue crab, other crab species, coral, jellyballs, other species of note, environmental debris, and trash.



# Operations & Dredging Endangered Species System (ODESS) Marine Mammal Observation



**US Army Corps  
of Engineers®**

District	Project	Contract

Dredge	Dredging Company	Load Number (Required)/Date

Start Date (Required)	Start Time (24 hours) (Required)	End Date (Required)	End Time (24 hours) (Required)

<b>Beaufort Sea State</b>		<b>Species Observed (Required)</b>		
<input type="checkbox"/> 0 (0-1 kn, 0-0 ft)	<input type="checkbox"/> 7 (27-33 kn, 13-19 ft)	<input type="checkbox"/> Bryde's/Sei Whale # ___ Est. Length (ft.) ___	<input type="checkbox"/> Manatee # ___ Est. Length (ft.) ___	<input type="checkbox"/> Right Whale # ___ Est. Length (ft.) ___
<input type="checkbox"/> 1 (1-3 kn, 0-1 ft)	<input type="checkbox"/> 8 (33-40 kn, 19-25 ft)	<input type="checkbox"/> Fin Whale # ___ Est. Length (ft.) ___	<input type="checkbox"/> Minke Whale # ___ Est. Length (ft.) ___	<input type="checkbox"/> Unknown # ___ Est. Length (ft.) ___
<input type="checkbox"/> 2 (4-6 kn, 1-2 ft)	<input type="checkbox"/> 9 (40-47 kn, 25-32 ft)	<input type="checkbox"/> Humpback Whale # ___ Est. Length (ft.) ___	<input type="checkbox"/> Pilot Whale # ___ Est. Length (ft.) ___	
<input type="checkbox"/> 3 (6-10 kn, 2-3.5 ft)	<input type="checkbox"/> 10 (47-55 kn, 32-41 ft)			
<input type="checkbox"/> 4 (10-16 kn, 3.5-6 ft)	<input type="checkbox"/> 11 (55-63 kn, 41-52 ft)			
<input type="checkbox"/> 5 (16-21 kn, 6-9 ft)	<input type="checkbox"/> 12 (>63 kn, >52 ft)			
<input type="checkbox"/> 6 (21-27 kn, 9-13 ft)				

Air Temp (°C)	Water Temp (°C)	Winds (k)	Seas (ft)	Cloud Cover (%)

Magnetic Bearing to Sighting	Estimated Distance	Vessel's Heading	Heading of Animal(s)

Coloration	Fins or Flippers Observed

Behaviors Observed	Surfacing Intervals Time
	Surfacing Intervals Distance

Comments (Was the behavior of the animal(s) affected by the vessel? How far did the animal(s) move? Who was notified?)

Observer(s) Name(s) (Required; Print)	Observer(s) Signature(s)	Observer(s) Company



# Operations & Dredging Endangered Species System (ODESS) Sturgeon Incident



US Army Corps  
of Engineers®

District  Project  Contract

Dredge  Dredging Company  Species (Required)  
 Atlantic  Gulf  Unknown  
 Green  Shortnose

Load Number (Required)/Date  Recovery Date (Required)  Recovery Time (24 hours) (Required)  Is this a Take? (Required)  
 Yes  
 No

Incident/Take Description

Location Specimen Recovered  
 Deck  Hopper  
 Draghead  Overflow Screen (Circle one)  
 Inflow Cage (Circle one) Starboard/Port/Other  
Starboard/Port/Other  Pipe

Specimen Condition  
 Alive  
 Dead  
 Fresh Dead  
 Moderately Decomposed

Rows of Preanal Shields (SSN = 1/ATL = 2)  
 Severely Decomposed  
 Skeleton  
 Skeleton Old Bone  
 Undetermined

Location Comment

# Dorsal Scutes (SSN = 8-13/ATL = 7-16)  # Lateral Scutes (SSN = 22-33/ATL = 24-35)  # Ventral Scutes (SSN = 7-11/ATL = 6-9)

Fork Length (cm/in)  Standard Length (cm/in)  Total Length (cm/in)

Mouth Width (cm/in)  Head Width at Eyes (cm/in)  Other (cm/in)

Genetic Samples Taken?  Yes  No  
Samples Frozen/Preserved?  Yes  No  
Photo Attached? (If Yes, label the species, date, geographic site, and dredge name on the photo)  
 Yes  No

Comments

Use these diagrams to illustrate the specimen/part that was recovered.



Observer(s) Name(s) (Required; Print)  Observer(s) Signature(s)  Observer(s) Company



# Operations & Dredging Endangered Species System (ODESS) Turtle Incident



**US Army Corps  
of Engineers**

District <input style="width: 95%;" type="text"/>	Project <input style="width: 95%;" type="text"/>	Contract <input style="width: 95%;" type="text"/>
--	---	--

Dredge <input style="width: 95%;" type="text"/>	Dredging Company <input style="width: 95%;" type="text"/>	<i>Species (Required)</i> <input type="checkbox"/> Green <input type="checkbox"/> Hawksbill <input type="checkbox"/> Kemp's Ridley <input type="checkbox"/> Leatherback <input type="checkbox"/> Loggerhead <input type="checkbox"/> Unknown
--	--	--

Load Number (Required)/Date <input style="width: 95%;" type="text"/>	Is this a Take? (Required) <input type="checkbox"/> Yes <input type="checkbox"/> No	Project Incident # (Required) <input style="width: 20%;" type="text"/>
---	---	---

Recovery Date (Required) <input style="width: 95%;" type="text"/>	Recovery Time (24 hours) (Required) <input style="width: 95%;" type="text"/>	Incident/Take Description <div style="border: 1px solid black; height: 80px; width: 100%;"></div>
--	---	--

Air Temp (°C) <input style="width: 95%;" type="text"/>	Surface Water Temperature (°C) <input style="width: 95%;" type="text"/>	
Mid-Depth Water Temperature (°C) <input style="width: 95%;" type="text"/>	Bottom Water Temperature (°C) <input style="width: 95%;" type="text"/>	

<u>Location Specimen Recovered</u> <input type="checkbox"/> Deck <input type="checkbox"/> Draghead <input type="checkbox"/> Inflow Cage (Circle one) Starboard/Port/Other	<input type="checkbox"/> Hopper <input type="checkbox"/> Overflow Screen (Circle one) Starboard/Port/Other <input type="checkbox"/> Pipe	<u>Age Class</u> <input type="checkbox"/> Juvenile (10.1-80 cm) <input type="checkbox"/> Sub-Adult (80.1-87 cm) <input type="checkbox"/> Adult (>87 cm) <input type="checkbox"/> Unknown	<u>Gender</u> <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Unknown	<u>Specimen Condition</u> <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Fresh Dead <input type="checkbox"/> Moderately Decomposed <input type="checkbox"/> Severely Decomposed <input type="checkbox"/> Skeleton <input type="checkbox"/> Skeleton Old Bone <input type="checkbox"/> Undetermined
---	---	--	---	---

Location Comment

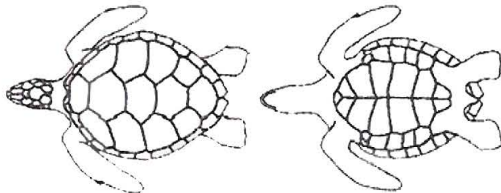
<u>Tag Type</u> <input type="checkbox"/> Flipper <input type="checkbox"/> Pit <input type="checkbox"/> Other (Specify) <input style="width: 50px;" type="text"/>	<u>Head Width (cm/in)</u> <input style="width: 95%;" type="text"/>	<u>How Gender Determined</u> <input type="checkbox"/> Tail Length <input type="checkbox"/> Eggs Observed <input type="checkbox"/> Other <input style="width: 50px;" type="text"/>	<u>Photo Attached?</u> (If Yes, label the species, date, geographic site, and dredge name on the photo) <input type="checkbox"/> Yes <input type="checkbox"/> No
---	---	--	---

Tag Number <input style="width: 95%;" type="text"/>	Plastron Length (cm/in) <input style="width: 95%;" type="text"/>	Carapace Straight Length (cm/in) <input style="width: 95%;" type="text"/>	Carapace Curved Length (cm/in) <input style="width: 95%;" type="text"/>
--	---	--	--

Tag Date <input style="width: 95%;" type="text"/>	Plastron Width (cm/in) <input style="width: 95%;" type="text"/>	Carapace Straight Width (cm/in) <input style="width: 95%;" type="text"/>	Carapace Curved Width (cm/in) <input style="width: 95%;" type="text"/>
--	--	---	---

<u>Genetic Samples Taken?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Final Disposition of Specimen</u> <input style="width: 95%; height: 20px;" type="text"/>
--	--

Use these diagrams to illustrate the specimen/part that was recovered.



Comments

<u>Observer(s) Name(s) (Required; Print)</u> <input style="width: 95%; height: 40px;" type="text"/>	<u>Observer(s) Signature(s)</u> <input style="width: 95%; height: 40px;" type="text"/>	<u>Observer(s) Company</u> <input style="width: 95%; height: 40px;" type="text"/>
--	---	--



# Operations & Dredging Endangered Species System (ODESS) Trawling Report



Date \_\_\_\_\_ Dredge Site \_\_\_\_\_ Dredge \_\_\_\_\_ Captain \_\_\_\_\_  
Trawler \_\_\_\_\_ Biologist(s) \_\_\_\_\_ Hrs  H  L \_\_\_\_\_  
Tide (Time/High or Low) \_\_\_\_\_ Hrs  H  L \_\_\_\_\_  
Water Temperature (°C) \_\_\_\_\_ Air Temperature (°C) \_\_\_\_\_ Wind Speed/Direction \_\_\_\_\_ Wave Height \_\_\_\_\_  
Bottom Type \_\_\_\_\_ Station # \_\_\_\_\_

Tow #	Start Time	Start Lat/Long dd mm.mm	Stop Time	Stop Lat/Long dd mm.mm	Tide: Ebb/Flood	Water Depth	Vessel Heading/Speed	Turtles? Sturgeon? Species?	By-catch/Comments (Change in Weather/Water Temperature, Net Damage, etc.)

**Cooperative Marine Turtle Tagging  
Program (CMTTP) Tagging Data Form**

**COOPERATIVE MARINE TURTLE TAGGING PROGRAM (CMTTP)  
TAGGING DATA FORM**

SPECIES: _____	DATE CAPTURED: DAY ___ MO ___ YR ___	DATE RELEASED: DAY ___ MO ___ YR ___
<b>TAG NUMBERS</b> (LIST ALL NUMBERS AND LETTER PREFIXES; CIRCLE TAG NUMBERS ALREADY ON THE TURTLE [= "OLD TAGS"]):		
LEFT FRONT: _____	RIGHT FRONT: _____	LEFT REAR: _____
PIT TAG #: _____		LOCATION OF PIT TAG: _____
WAS TURTLE CARRYING TAGS WHEN ENCOUNTERED?:	YES	NO
IF YES, THEN CIRCLE CORRECT STATEMENT:		
1. RECAPTURE OF SAME PROJECT TURTLE (EITHER WITHIN SEASON OR BETWEEN SEASONS)		
2. RECAPTURE OF DIFFERENT PROJECT TURTLE (NOT A TAG YOUR GROUP APPLIED)		
TAG RETURN ADDRESS:		
ORGANIZATION TAGGING AND/OR RELEASING TURTLE (INCLUDE AREA CODE/PHONE NUMBER; AND EMAIL):		
PROJECT TYPE (CIRCLE ONE):		
[NESTING BEACH]	[TANGLE NET]	[POUND NET]
[HAND CATCH]	[STRANDING]	[OTHER, DESCRIBE]
IF NESTING BEACH: DID TURTLE NEST?	YES	NO
UNDETERMINED		
FACILITY WHERE TURTLE WAS BEING HELD:		
DESCRIBE CAPTURE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE		
DESCRIBE RELEASE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE.		
<b>TURTLE MEASUREMENTS:</b>		
STRAIGHT CARAPACE LENGTH (SCLMINIMUM):	_____ CM	_____ INCHES
STRAIGHT CARAPACE LENGTH (SCLNOTCH-TIP):	_____ CM	_____ INCHES
STRAIGHT CARAPACE WIDTH (SCW):	_____ CM	_____ INCHES
CURVED CARAPACE LENGTH (CCLMINIMUM):	_____ CM	_____ INCHES
CURVED CARAPACE LENGTH (CCLNOTCH-TIP):	_____ CM	_____ INCHES
CURVED CARAPACE WIDTH (CCW):	_____ CM	_____ INCHES
WEIGHT:	_____ KG	_____ LBS
<b>TURTLE WAS INSPECTED AND/OR SCANNED FOR:</b>		
TAG SCARS:	YES	NO
WHERE LOCATED?		
PIT TAGS:	YES	NO
WHAT FREQUENCY?		
MAGNETIC WIRES:	YES	NO
WHERE LOCATED?		
LIVING TAGS:	YES	NO
WHERE LOCATED?		
ADDITIONAL REMARKS OR DATA ON BACK OF FORM:	YES	NO
<p align="center"><b>MAIL COMPLETED FORM TO:</b>          ARCHIE CARR CENTER FOR SEA TURTLE RESEARCH, DEPARTMENT OF ZOOLOGY, PO Box 118525          UNIVERSITY OF FLORIDA, GAINESVILLE, FL 32611 USA          and          SCDNR Marine Turtle Program, PO Box 12559, Charleston, SC 29422</p>		



# **Protocol for Collecting Tissue from Live and Dead Turtles for Genetic Analysis**

**Appendix II:**

**PROTOCOL FOR COLLECTING TISSUE FROM DEAD TURTLES FOR GENETIC ANALYSIS**

**Method for Dead Turtles**

<<<IT IS CRITICAL TO USE A NEW SCALPEL BLADE AND GLOVES FOR EACH TURTLE TO AVOID CROSS-CONTAMINATION OF SAMPLES>>>

1. Put on a new pair of latex gloves.
2. Use a new disposable scalpel to cut out an approx. 1 cm (½ in) cube (bigger is NOT better) piece of muscle. Easy access to muscle tissue is in the neck region or on the ventral side where the front flippers “insert” near the plastron. It does not matter what stage of decomposition the carcass is in.
3. Place the muscle sample on a hard uncontaminated surface (plastron will do) and make slices through the sample so the buffer solution will penetrate the tissue.
4. Put the sample into the plastic vial containing saturated NaCl with 20% DMSO \*(SEE BELOW)
5. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.  
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read “JMD20010715-01, C. mydas, Georgia, CCL=35.8 cm”. If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
6. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
7. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
8. Wrap parafilm around the cap of the vial by stretching it as you wrap.
9. Place vial within whirlpak and close.
10. Dispose of the scalpel.
11. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
12. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

\*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program  
NOAA/NMFS/SEFSC  
75 Virginia Beach Drive  
Miami, FL 33149  
305-361-4207

**THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!**

**Genetic Sample Kit Materials – DEAD turtles**

latex gloves

single-use scalpel blades (Fisher Scientific 1-800-766-7000, cat. # 08-927-5A)

plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm

waterproof paper label, ¼" x 4"

pencil to write on waterproof paper label

permanent marker to label the plastic vials

scotch tape to protect writing on the vials

piece of parafilm to wrap the cap of the vial

- whirl-pak to return/store sample vial

Appendix III:

**PROTOCOL FOR COLLECTING TISSUE FROM LIVE TURTLES FOR GENETIC ANALYSIS**

**Method for Live Turtles**

<<<IT IS CRITICAL TO USE A NEW BIOPSY PUNCH AND GLOVES FOR EACH TURTLE TO AVOID CROSS-CONTAMINATION OF SAMPLES>>>

1. Turn the turtle over on its back.
2. Put on a new pair of latex gloves.
3. Swab the entire cap of the sample vial with alcohol.
4. Wipe the ventral and dorsal surfaces of the rear flipper 5-10 cm from the posterior edge with the Betadine/iodine swab.
5. Place the vial under the flipper edge to use the cleaned cap as a hard surface for the punch.
6. Press a new biopsy punch firmly into the flesh as close to the posterior edge as possible and rotate one complete turn. Cut all the way through the flipper to the cap of the vial.
7. Wipe the punched area with Betadine/iodine swab; rarely you may need to apply pressure to stop bleeding.
8. Use a wooden skewer to transfer the sample from the biopsy punch into the plastic vial containing saturated NaCl with 20% DMSO \*(SEE BELOW)
9. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.  
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read "JMD20010715-01, C. mydas, Georgia, CCL=35.8 cm". If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
10. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
11. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
12. Wrap parafilm around the cap of the vial by stretching it as you wrap.
13. Place vial within whirlpak and close.
14. Dispose of the biopsy punch.
15. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
16. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

\*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program  
NOAA/NMFS/SEFSC  
75 Virginia Beach Drive  
Miami, FL 33149  
305-361-4207

**THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!**

**Genetic Sample Kit Materials – LIVE turtles**

- latex gloves
- alcohol swabs
- Betadine/iodine swabs
- 4-6 mm biopsy punch – sterile, disposable (Moore Medical Supply 1-800-678-8678, part #0052442)
- plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm
- wooden skewer
- waterproof paper label, 1/4" x 4"
- pencil to write on waterproof paper label
- permanent marker to label the plastic vials
- scotch tape to protect writing on the vials
- piece of parafilm to wrap the cap of the vial
- whirl-pak to return/store sample vial



# **Sea Turtle Handling and Resuscitation Guidelines**

#### **Appendix IV: SEA TURTLE HANDLING AND RESUSCITATION GUIDELINES**

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Any sea turtles taken incidentally during the course of fishing or scientific research activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to the following procedures:

A) Sea turtles that are actively moving or determined to be dead (as described in paragraph (B)(4) below) must be released over the stern of the boat. In addition, they must be released only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.

B) Resuscitation must be attempted on sea turtles that are comatose or inactive by:

1. Placing the turtle on its bottom shell (plastron) so that the turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 to 24 hours. The amount of elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.
2. Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a turtle moist.
3. Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be returned to the water in the same manner as that for actively moving turtles.
4. A turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise, the turtle is determined to be comatose or inactive and resuscitation attempts are necessary.

Any sea turtle so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

*These guidelines are adapted from 50 CFR § 223.206(d)(1). Failure to follow these procedures is therefore a punishable offense under the Endangered Species Act.*



# **Turbidity Monitoring Report**

TURBIDITY MONITORING REPORT  
IRVINGTON SITE OFFICE  
CONTRACT NUMBER:

=====

DATE: \_\_\_\_\_ REPORT NO. # \_\_\_\_\_

TIME OF DAY SAMPLE TAKEN: \_\_\_\_\_ hrs

WEATHER CONDITIONS:

DIRECTION OF WATER FLOW: \_\_\_\_\_ TIDAL STAGE: \_\_\_\_\_

WATER TEMP: \_\_\_\_\_ ° WIND SPEED \_\_\_\_\_ (MPH)

WAVE CONDITIONS (CALM, CHOPPY, ROUGH): \_\_\_\_\_

=====

TURBIDITY MEASUREMENT TAKEN APPROX. \_\_\_\_\_ FT. FROM DREDGE

TURBIDITY MEASUREMENT TAKEN APPROX. \_\_\_\_\_ FT. FROM DISCHARGE

DISCHARGE IS APPROX. \_\_\_\_\_ FT FROM DREDGE WITH AZIMUTH \_\_\_\_\_ °

DEPTH AT DREDGE: \_\_\_\_\_ FT. DEPTH AT DISCHARGE: \_\_\_\_\_ FT.

SURFACE TURBIDITY AT DREDGE: \_\_\_\_\_ NTU

MID-DEPTH TURBIDITY AT DREDGE: \_\_\_\_\_ NTU

SURFACE TURBIDITY AT DISCHARGE: \_\_\_\_\_ NTU D/A #: 11, SECTION 1a

MID-DEPTH TURBIDITY AT DISCHARGE: \_\_\_\_\_ NTU

=====

BACKGROUND TURBIDITY TAKEN APPROX. \_\_\_\_\_ FT FROM DREDGE

AZIMUTH FROM DREDGE: \_\_\_\_\_ °

WATER DEPTH: \_\_\_\_\_ FT

SURFACE TURBIDITY: \_\_\_\_\_ NTU MID-DEPTH TURBIDITY: \_\_\_\_\_ NTU

=====

REMARKS (VISIBLE PLUME, ETC.): Sea too rough for samples \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

# **Standard Manatee Conditions**

## STANDARD MANATEE CONSTRUCTION CONDITIONS

April 2003

- a. The lessee/grantee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatees.
- b. The lessee/grantee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to, or exit from, essential habitat.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- e. If manatees are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure their protection. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.
- f. Any collision with and/or injury to a manatee shall be reported immediately to Mr. Paul Necaise at (228) 493-6631 of the U.S. Fish and Wildlife Service in Jackson, Mississippi.
- g. Temporary signs concerning the manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the lessee/grantee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8'.6" by 11" which reads *Caution: Manatee Habitat. Idle speed is required if operating a vessel #7 the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Jackson, Mississippi (228-493-6631).*



## **Online Resources**

REFERENCE THE GRBO AND REVISIONS ONLINE AT:

[http://sero.nmfs.noaa.gov/protected\\_resources/section\\_7/freq\\_biop/documents/dredge\\_bo/nov\\_19\\_2003\\_gom\\_rbo.pdf](http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/nov_19_2003_gom_rbo.pdf)

[http://sero.nmfs.noaa.gov/protected\\_resources/section\\_7/freq\\_biop/documents/dredge\\_bo/f13976\\_02187-sad\\_grbo\\_revision\\_1.pdf](http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13976_02187-sad_grbo_revision_1.pdf)

[http://sero.nmfs.noaa.gov/protected\\_resources/section\\_7/freq\\_biop/documents/dredge\\_bo/f13817\\_revision\\_2\\_grbo.pdf](http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13817_revision_2_grbo.pdf)

# **ADEM Water Quality and Coastal Zone Consistency Certifications**



**LANCE R. LEFLEUR**  
DIRECTOR



**KAY IVEY**  
GOVERNOR

Alabama Department of Environmental Management  
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463  
Montgomery, Alabama 36130-1463  
(334) 271-7700 ■ FAX (334) 271-7950

May20, 2020

Department of the Army  
Mobile District, U.S. Army Corps of Engineers  
Mr. Todd A. Nettles, Acting Chief  
Planning and Environmental Division  
Post Office Box 2288  
Mobile, Alabama 36628-0001

RE: State of Alabama Water Quality Certification (WQC) Pursuant to Clean Water Act (CWA) §401(a)  
Mobile Harbor Federal Navigation  
U.S. Army Corps of Engineers (USACE) Joint Public Notice (JPN): FP15-MH01-10  
Alabama Department of Environmental Management (ADEM) Tracking Code: ADEM-2018-345-WQC-COEP

Dear Mr. Nettles:

On April 13, 2020, the ADEM received the USACE's request for WQC for the above referenced federal activity.

In this proposed federal activity, the U.S. Army Corps of Engineers would widen the Mobile Harbor Navigation Channel utilizing mechanical and hydraulic dredging methods. The area would be dredged to a total depth of -56 - 54 feet within a previously dredged area of Mobile Bay. Minor bend easings would occur at the double bends in the Bar Channel approach to the Bay Channel. The Bay Channel would be widened from 400 to 500 feet to a total depth of 54 feet from the mouth of Mobile Bay northward for three nautical miles to provide two-way traffic area for passing. In addition, the Choctaw Pass Turning Basin will be expanded 250 feet to the south to a total depth of 56 feet for safe turning. The purpose is to provide sufficient water depth and lateral clearance for larger vessels experiencing transportation delays and inefficiencies due to limited channel width and depth of the existing channel dimensions. Dredged material will be disposed of in established, protected, and previously approved disposal areas which include the Relic Shell Mined Area, Sand Island Beneficial Use Area, and the Ocean Dredged Material Site.

Action pertinent to WQC is required by CWA §401(a)(1), 33 U.S.C. §1251, *et. seq.* If conducted in accordance with the conditions prescribed herein, there is reasonable assurance that the discharge resulting from the proposed activities will not violate applicable water quality standards established under §303 of the CWA and §22-22-9(g), *Code of Alabama* (1975). By this letter, the ADEM hereby notifies the USACE that CWA §401 WQC is **granted**. This WQC terminates with the expiration of FP15-MH01-10. This WQC only addresses potential discharges to state waters resulting from the activities. ADEM certifies that there are no applicable effluent limitations under §301 and §302 nor applicable standards under §306 and §307 of the CWA in regard to the activities specified.

In recognition that projects are site specific in nature and conditions can change during project implementation, the ADEM reserves the right to request additional information or request additional management measures to be implemented, as necessary on a case-by-case basis, in order to ensure the protection of water quality and coastal resources. Deviation from the approved project design may necessitate additional coordination.

This WQC does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations and in no way purports to vest in the USACE title to lands now owned by the State of Alabama nor shall it be construed as acquiescence by the State of Alabama of lands owned by the State that may be in the USACE's possession. This certification is not transferable without prior written notice and approval of the ADEM. Upon such notice, the Director may require submission of additional information.

**Birmingham Branch**  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6168  
(205) 941-1603 (FAX)

**Decatur Branch**  
2715 Sandlin Road, S.W.  
Decatur, AL 36603-1333  
(256) 353-1713  
(256) 340-9359 (FAX)



**Mobile Branch**  
2204 Perimeter Road  
Mobile, AL 36615-1131  
(251) 450-3400  
(251) 479-2593 (FAX)

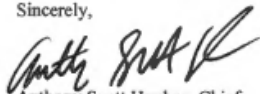
**Mobile-Coastal**  
3664 Dauphin Street, Suite B  
Mobile, AL 36608  
(251) 304-1176  
(251) 304-1189 (FAX)

Adherence to the following conditions is required in order to ensure protection of water quality.

1. Appropriate and Effective Best Management Practices (BMPs) shall be implemented to minimize turbidity impacts to the maximum extent practicable. Turbidity generated by the activity must not cause substantial visible contrast nor result in an increase of more than fifty (50) Nephelometric turbidity units above background in state waters. If turbidity generated from project exceeds acceptable levels, operations must cease until turbidity is restored to acceptable levels. The ADEM Mobile Coastal office (251) 304-1176 must be notified of resultant work stoppage.
2. Upon the loss or failure of any treatment facility, BMP, or other management control measure as identified by responsible on-site staff during day-to-day operations or as identified by ADEM technical staff during inspections, work/activity and all discharges shall, where necessary to maintain compliance with this WQC, be suspended, halted, reduced, or otherwise controlled until effective treatment is restored.
3. The USACE and/or its assigns are responsible for the condition of land-based dredge spoil disposal areas for the life of the placement activity and until the disposal areas are reclaimed or adequately stabilized, and for pumping and discharge rates to ensure settling of suspended solids within the confines of the spoil disposal areas sufficient to ensure that turbidity in the return water will not cause substantial visible contrast within the receiving waters, or result in an increase of 50 NTUs above background turbidity levels in the receiving waters. The salinity of return waters shall be similar to that of the receiving waters.
4. Spoil material utilized beneficially through strategic placement onto state water bottoms shall be free of toxic pollutants in toxic amounts.

Contact the Mobile-Coastal office anytime with questions. Always include the ADEM tracking code above when corresponding on this matter. Allen Phelps is the Mobile-Coastal office contact for this project; he may be reached by phone at 251.304.1176 or by e-mail at [cap@adem.alabama.gov](mailto:cap@adem.alabama.gov).

Sincerely,



Anthony Scott Hughes, Chief  
Field Operations Division

cc: EPA, Molly Martin  
DCNR.Coastal@dcnr.alabama.gov  
USACE, Donald Mroczko

ASH/jsb/cap

File: 401WQC/12532

**LANCE R. LEFLEUR**  
DIRECTOR



**KAY IVEY**  
GOVERNOR

Alabama Department of Environmental Management  
adem.alabama.gov  
1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463  
Montgomery, Alabama 36130-1463  
(334) 271-7700 ■ FAX (334) 271-7950

May 20, 2020

Department of the Army  
Mobile District, U.S. Army Corps of Engineers  
Mr. Todd A. Nettles, Acting Chief  
Planning and Environmental Division  
Post Office Box 2288  
Mobile, Alabama 36628-0001

RE: State of Alabama Concurrence with the U.S. Army Corps of Engineers' Coastal Consistency Determination  
Modifications to the Mobile Harbor Federal Navigation Channel  
U.S. Army Corps of Engineers (USACE) Joint Public Notice (JPN): FP15-MH01-10  
Alabama Department of Environmental Management (ADEM) Tracking Code: ACAMP-2018-345-FC-FAA-COEP

Dear Mr. Nettles:

On April 13, 2020 the ADEM received the USACE's Consistency Determination (CD) that the proposed federal activity, referenced above, is consistent with the Alabama Coastal Area Management Program.

In this proposed federal activity, the U.S. Army Corps of Engineers would widen the Mobile Harbor Navigation Channel utilizing mechanical and hydraulic dredging methods. The area would be dredged to a total depth of -56 -54 feet within a previously dredged area of Mobile Bay. Minor bend easings would occur at the double bends in the Bar Channel approach to the Bay Channel. The Bay Channel would be widened from 400 to 500 feet to a total depth of 54 feet from the mouth of Mobile Bay northward for three nautical miles to provide two-way traffic area for passing. In addition, the Choctaw Pass Turning Basin will be expanded 250 feet to the south to a total depth of 56 feet for safe turning. The purpose is to provide sufficient water depth and lateral clearance for larger vessels experiencing transportation delays and inefficiencies due to limited channel width and depth of the existing channel dimensions. Dredged material will be disposed of in established, protected, and previously approved disposal areas which include the Relic Shell Mined Area, Sand Island Beneficial Use Area, and the Ocean Dredged Material Site.

Pursuant to Title 15 C.F.R. §930.41(a) and based upon review of the information submitted by the USACE, by this letter the ADEM hereby notifies the USACE of its concurrence with the USACE's CD.

Should it become necessary to modify the activities described in the JPN after this concurrence has been issued, a revised CD may be necessary pursuant to Title 15 C.F.R. §930.46. Contact the Mobile-Coastal office anytime with questions. Always include the ADEM tracking code above when corresponding on this matter. Allen Phelps is the Mobile-Coastal office contact for this project; he may be reached by phone at 251.304.1176 or by e-mail at [cap@adem.alabama.gov](mailto:cap@adem.alabama.gov).

**Birmingham Branch**  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6188  
(205) 941-1603 (FAX)

**Decatur Branch**  
2715 Sandlin Road, S.W.  
Decatur, AL 35603-1333  
(256) 353-1713  
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**Mobile Branch**  
2204 Perimeter Road  
Mobile, AL 36615-1131  
(251) 450-3400  
(251) 479-2593 (FAX)

**Mobile-Coastal**  
3664 Dauphin Street, Suite B  
Mobile, AL 36608  
(251) 304-1176  
(251) 304-1189 (FAX)

USACE Joint Public Notice (JPN): FP15-MH01-10  
ADEM Tracking Code: ACAMP-2018-345-FC-FAA-COEP  
Page 2 of 2

Sincerely,



Anthony Scott Hughes, Chief  
Field Operations Division

cc: EPA, Molly Martin  
DCNR.Coastal@dcnr.alabama.gov  
USACE, Donald Mroczko

ASH/jsb/cap

File: CZCERT/12532

# **Letter from U.S. Fish and Wildlife Service**



## United States Department of the Interior

FISH AND WILDLIFE SERVICE

1208-B Main Street  
Daphne, Alabama 36526

IN REPLY REFER TO:

2016-CPA-0130

DEC 21 2018

Lekesha W. Reynolds  
Chief, Coastal Environment Team  
Department of the Army  
Mobile District, Corps of Engineers  
P.O. Box 2288  
Mobile, AL 36628

Dear Ms. Reynolds:

Thank you for your letter received by our office on November 20, 2018, requesting Endangered Species Act (ESA) Section 7 concurrence on the Army Corps of Engineers (USACE) effects determination for the Mobile Harbor Federal Navigation Project Draft Integrated General Reevaluation Report with Supplemental Environmental Impact Statement. The project is located in Mobile County, Alabama. Our comments are provided in accordance with provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

We understand that you determined this project may affect, but is not likely to adversely affect the following federally listed species:

West Indian manatee (*Trichechus manatus*) – Threatened  
Wood stork (*Mycteria americana*) - Threatened  
Piping plover (*Charadrius melodus*) – Threatened  
Red knot (*Calidris canutus rufa*) – Threatened  
Southern clubshell (*Pleurobema decisum*) - Endangered  
Inflated heelsplitter (*Potamilus inflatus*) – Threatened  
Gopher tortoise (*Gopherus polyphemus*) – Threatened  
Eastern indigo snake (*Drymarchon corais couperi*) – Endangered  
Black pine snake (*Pituophis melanoleucus lodingi*) – Threatened  
Alabama red-bellied turtle (*Pseudemys alabamensis*) - Endangered

We are concerned about the potential indirect or direct physical impact on manatees that may be migrating through the project area during the proposed dredging operation. Direct impacts could occur from either boat, barge, cutterhead, or hydraulic pipeline strikes. Because manatees are known to seasonally occur in the Mobile channel, and could be affected by this activity, we believe that a “may affect” situation exists for the manatee.

PHONE: 251-441-5181

FAX 251-441-6222

You have proposed to implement our "Standard Manatee Construction Conditions" for this project. We believe that if these conditions can be implemented, then there will be no adverse impact to this species and further consultation will not be required for the manatee. If these steps cannot be exercised, or there is an occurrence of collision with and/or injury to a manatee, because of the proposed project, then further consultation may be required.

Based upon a review of our records and the information provided in your letter, we concur with your determination that the project actions may affect, but are not likely to adversely affect the species listed above.

We also understand that, for this project, Gulf sturgeon and sea turtles fall under the jurisdiction of the National Marine Fisheries Service (NMFS). USACE will utilize the NMFS issued Gulf Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining Areas Using Hopper Dredges by USACE Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287).

Thank you for the opportunity to provide ESA Section 7 concurrence for your project. For further discussion, please contact Mr. Josh Rowell of my staff at (251) 441-5836. Please refer to the reference number located at the top of this letter in future phone calls or written correspondence.

Sincerely,



William J. Pearson  
Field Supervisor  
Alabama Ecological Services Field Office

**Letter from NOAA National Marine  
Fisheries Service**





**UNITED STATES DEPARTMENT OF COMMERCE**

National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
263 13th Avenue South  
St. Petersburg, Florida 33701-5505  
<http://seero.nmfs.noaa.gov>

September 7, 2018 F/SER46/BH:jk  
225/389-0508

Ms. Jennifer L. Jacobson  
Planning and Environment Division  
Mobile District Environmental Branch  
U.S. Army Corps of Engineers  
Post Office Box 2288  
Mobile, Alabama 86628-0001

Dear Ms. Jacobson:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Draft Integrated General Reevaluation Report with Supplemental Environmental Impact Statement (SEIS), dated July 24, 2018, on the "Mobile Harbor Navigation Project." The U.S. Army Corps of Engineers (USACE) proposes to conduct maintenance dredging and placement activities. The maintenance dredging includes a navigation channel from the Gulf of Mexico to turning basins near the Cochrane Bridge, Alabama State Docks, and McDuffie Island. The following is provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and 600.920 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297).

The NMFS provided comments to the public notice for the project by letter dated January 25, 2017, recommending the beneficial use of dredge material. The USACE responded by letter dated February 21, 2017, acknowledging the comments. The maintenance dredging will generate approximately 5.5 million cubic yards of sediment annually. As proposed in the Public Notice, the sediment would be disposed at the Mobile Offshore Dredged Material Disposal Site (ODMDS), open bay thin-layer disposal areas, the Sand Island Beneficial Use Area (SIBUA), Blakely Island, and Gilliard Island.

Section 2.5.4 of the SEIS confirms little change to water quality parameters such as turbidity, salinity, and dissolved oxygen will result from the project. Due to NMFS' early involvement as a cooperating agency and close coordination with USACE, the project has been designed in such a way as to not have a substantial adverse effect on EFH or federally managed fishery species in Mobile Bay and surrounding waters. The NMFS Habitat Conservation Division does not object to the project as proposed and agrees with USACE's determination the project will not adversely affect EFH.

We appreciate your consideration of our comments. If you wish to discuss this project further or have questions concerning our recommendations, please contact Brandon Howard at (225) 389-0508, extension 203.

Sincerely,

Virginia M. Fay  
Assistant Regional Administrator  
Habitat Conservation Division



c:  
FWS, Paul\_Necaise@fws.gov  
F/SER46, Swafford  
F/SER4, Dale, Fay, Silverman  
Files

**Letter from Alabama State Historic  
Preservation Officer**



## ALABAMA HISTORICAL COMMISSION

468 South Perry Street  
P.O. Box 300900  
Montgomery, Alabama 36130-0900  
334-242-3184 / Fax: 334-240-3477

Lisa D. Jones  
Executive Director  
State Historic Preservation Officer

July 6, 2020

Patrick O'Day  
Corps of Engineers  
P.O. Box 2288  
Mobile, AL 36628-0001

Re: AHC 20-1051  
CRA  
Mobile Harbor Phase II Diver Verification Survey Report  
Mobile County

Dear Mr. O'Day:

Upon review of the cultural resource assessment conducted for the above referenced project, we have determined that project activities will have no effect on cultural resources eligible for or listed on the National Register of Historic Places. Therefore, we concur with the proposed project activities.

Consultation with the State Historic Preservation Office does not constitute consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public. If archaeological materials are encountered during construction, the procedures codified at 36 CFR 800.13(b) will apply. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal, and glass objects. The federal agency or the applicant receiving federal assistance should contact our office immediately. If human remains are encountered, the provisions of the Alabama Burial Act (*Code of Alabama* 1975, §13A-7-23.1, as amended; Alabama Historical Commission Administrative Code Chapter 460-X-10 Burials) should be followed. This stipulation shall be placed on the construction plans to insure contractors are aware of it.

We appreciate your commitment to helping us preserve Alabama's historic archaeological and architectural resources. Should you have any questions, please contact Amanda McBride at 334.230.2692 or [Amanda.McBride@ahc.alabama.gov](mailto:Amanda.McBride@ahc.alabama.gov). Have the AHC tracking number referenced above available and include it with any future correspondence.

Sincerely,

A handwritten signature in blue ink that reads "Lee Anne Wofford".

Lee Anne Wofford  
Deputy State Historic Preservation Officer

LAW/amh

## **Section 103 Concurrence from EPA**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
81 FORSYTH STREET, SW  
ATLANTA, GEORGIA 30303-3104

July 17, 2020

Mr. Todd A. Nettles  
Acting Chief  
Planning and Environmental Division  
U.S. Army Corps of Engineers  
Mobile District  
P.O. Box 2288  
Mobile, Alabama 36628

Dear Mr. Nettles:

The purpose of this letter is to correct an error that was included in the letter from the U.S. Environmental Protection Agency dated July 14, 2020 in response to your request for concurrence on the proposed disposal of new work dredged material from the Mobile Harbor GRR Project into the Mobile Ocean Dredged Material Disposal Site. Specifically, the EPA's letter dated July 14, 2020 which is attached for your reference, stated that the EPA's concurrence is based on dredging by hydraulic methods and load volumes not to exceed 15,000 cubic yards. The correct restrictions for load volumes are included in the table below and supersede the restrictions for load volumes included in the EPA's letter dated July 14, 2020. All other conditions identified in the prior letter remain effective.

Dredging Unit	Load restriction
DU3	15,000 cy
DU4A	15,000 cy
DU4B	15,000 cy
DU5A	15,000 cy
DU5B	13,500 cy
DU6A	13,000 cy
DU7A	15,000 cy
DU08	Excluded
DU09	Excluded
DU10	Excluded
DU11	Excluded
DU12	15,000 cy

The EPA's concurrence is effective for a three-year period as of July 14, 2020. If you have any questions concerning this letter, please contact Dr. Wade Lehmann at (404) 562-8082.

Sincerely,

BECKY  
ALLENBACH  Digitally signed by BECKY  
ALLENBACH  
DN: cn=BECKY, o=US, ou=USEPA, email=becky.allenbach@epa.gov

Jeaneanne M. Gettle, Director  
Water Division

Enclosure

**Mobile Harbor ODMDS Site Management  
and Monitoring Plan (SMMP)**





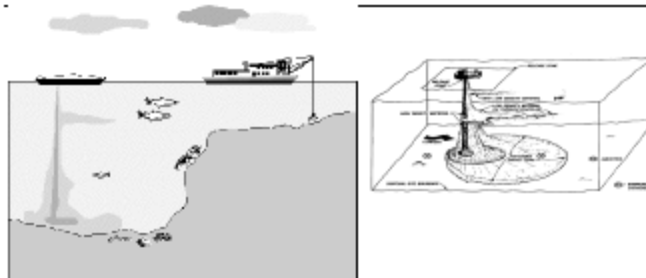
Mobile Ocean Dredged Material Disposal Site  
**SITE MANAGEMENT AND  
MONITORING PLAN**

July 2020

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U.S. Army Corps  
of Engineers  
Mobile District



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BUILDING STRONG.

The following Site Management and Monitoring Plan (SMMP) for the Mobile Ocean Dredged Material Disposal Site (ODMDS) has been developed pursuant to the Water Resources Development Act Amendments of 1992 (WRDA 92) to the Marine Protection, Research, and Sanctuaries Act of 1972 for the management and monitoring of ocean disposal activities.

JOLY.SEBASTIEN.2  
PIERRE.113218676  
2  
Digitally signed by  
JOLY.SEBASTIEN.PIERRE.1132  
18676  
Date: 2020.07.21 10:10:02 -0500  
\_\_\_\_\_

Sebastien P. Joly                      Date  
Colonel, U.S. Army  
District Commander  
Mobile District  
U.S. Army Corps of Engineers  
Mobile, Alabama

MARY  
WALKER  
Digitally signed by MARY  
WALKER  
Date: 2020.07.17  
11:38:43 -0400  
\_\_\_\_\_

Mary Walker                      Date  
Regional Administrator  
U.S. Environmental Protection Agency  
Region 4  
Atlanta, Georgia

This plan is effective from the date of the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) signatures for a period not to exceed ten years.

**MOBILE OCEAN DREDGED MATERIAL DISPOSAL SITE  
SITE MANAGEMENT AND MONITORING PLAN**

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## Mobile Ocean Dredged Material Disposal Site Site Management and Monitoring Plan (SMMP)

### 1.0 INTRODUCTION

Under the Marine Protection, Research, and Sanctuaries Act) (MPRSA) of 1972, it is the responsibility of U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) to monitor and manage Ocean Dredged Material Disposal Sites (ODMDS). The goal of this plan is to ensure that ocean dredged material disposal activities will not unreasonably degrade the marine environment or endanger human health or economic potential. MPRSA, as amended by the Water Resources Development Act (WRDA) of 1992, requires the development of a Site Management and Monitoring Plan (SMMP); a Memorandum of Understanding (MOU) of 2017 between the EPA and USACE specifically addresses the development of the SMMP for transportation and disposal of dredged material at ODMDS. The SMMP provisions are an integral part of all disposal activities at the site. EPA concurrence decisions under MPRSA section 103 regarding transportation and ocean disposal of dredged material will assure consistency with the SMMP.

Preparation of this SMMP has been informed by the Guidance Document for Development of Site Management Plans for Ocean Dredged Material Disposal Sites (EPA and USACE, 1996). This SMMP provides a framework for site monitoring and management as required by MPRSA. The SMMP may be revised if EPA in conjunction with USACE determine that changes are warranted, including as a result of information obtained during the monitoring process or other factors. The SMMP will be reviewed and revised as needed, or every ten years.

The Mobile ODMDS was designated in 1988 and modified in 2020. This SMMP will replace prior versions of the SMMP for the Mobile ODMDS.

#### 1.1 Site Management and Monitoring Plan Team

An interagency SMMP team has been established to assist EPA and the USACE in developing and revising this SMMP. The team consists of the following governmental agencies and their respective representatives:

USACE, Mobile District  
Mr. Matthew Lang

Alabama State Port Authority (ASPA)  
Mr. James K. Lyons

EPA, Region 4  
Dr. Wade Lehmann

Alabama Department of  
Environmental Management

---

U.S. EPA Region 4  
US Army Corps of Engineers Mobile District

Mr. Scott Brown

U.S. Coast Guard  
Sector Mobile Commander  
CAPT Ladonn Allen

National Oceanic and  
Atmospheric Administration  
Dr. Roy Crabtree

Other agencies, such as the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and the Bureau of Ocean Energy Management (BOEM) are invited to participate where appropriate. EPA and the USACE evaluated existing monitoring data, the type of disposal (i.e., operations and maintenance (O&M) vs. new work), the type of material (i.e., sand vs. silts/clays), location of dredged material placement within the ODMDs, and quantity of material. The team assists EPA and the USACE on deciding on appropriate monitoring techniques, level of monitoring, significance of results, and potential management options.

Specific responsibilities of EPA and the USACE are:

EPA: EPA is responsible for designating/de-designating MPRSA Section 102 ODMDs, regulating site use, developing and implementing disposal monitoring programs, evaluating environmental effects of disposal of dredged material at these sites, and for reviewing and concurring on dredged material suitability determinations.

USACE: The USACE is responsible for evaluating dredged material suitability, issuing MPRSA Section 103 permits, and cooperating with EPA in regulating site use and developing and implementing disposal monitoring programs.

The SMMP provisions apply for all dredged material disposal activities at the site, including monitoring and management activities by the federal agencies, but also include template provisions for USACE to include in subsequently issued permits (see Appendix B) or in the transportation and disposal requirements for a Federal project (see Appendix C). References in this document to matters that "will be required" refers to implementation in a subsequent proceeding to authorize disposal of dredged material, whether in a permit, in contract or other Federal project specifications for the transportation and disposal of dredged material, or by the Corps directly. This SMMP does not itself impose binding requirements or obligations, though the SMMP does identify binding rights and obligations established by other final agency actions. The site designation regulation at 40 CFR 228.15(H)14 requires compliance with section 2.8 of this SMMP. Other than section 2.8, matters that "will be required" will be implemented through application of the template language included in the Appendices or the language may vary from the terms of the Appendices. The issuance of this SMMP does not determine the rights or obligations of any third party. EPA can ensure

implementation of the template provisions as necessary through EPA's concurrence actions. All MPRSA Section 103 ocean disposal permits or contract specifications will assure implementation of the SMMP.

## 2.0 SITE MANAGEMENT

Section 228.3 of the Ocean Dumping Regulations (40 Code of Federal Regulation (CFR) 220-229) states: "Management of a site consists of regulating times, rates, and methods of disposal and quantities and types of materials disposed of; developing and maintaining effective ambient monitoring programs for the site; conducting disposal site evaluation studies; and recommending modifications in site use and/or designation." The SMMP may be modified if it is determined that such changes are warranted as a result of information obtained during the monitoring process. MPRSA, as amended by WRDA 92, provides that the SMMP shall include but not be limited to:

- A baseline assessment of conditions at the site;
- A program for monitoring the site;
- Special management conditions or practices to be implemented at each site that are necessary for the protection of the environment;
- Consideration of the quantity and biological/physical/chemical characteristics of dredged materials to be disposed of at the site;
- Consideration of the anticipated use of the site over the long-term; and
- A schedule for review and revision of the plan.

### 2.1 Disposal Site Characteristics

The designation of the Mobile ODMDS is published at 40 CFR 228.15(h)(14). Coordinates in the regulation are provided in NAD 83 (Table 1). The Mobile ODMDS is a 23.8 square nautical mile (nmi<sup>2</sup>) area.

Table 1. Site Coordinates

Geographic (NAD 83)	
30°13.0"N	88°08.8"W
30°09.6"N	88°04.8"W
30°08.5"N	88°05.8"W
30°08.5"N	88°12.8"W

30°12.4'N	88°12.8'W
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The site lies on the shallow continental shelf, 4 nmi offshore of Mobile Point, Alabama, with an average depth of approximately 42 feet (Figure 1). Physical and biological conditions at the ODMDS are described in, "Environmental Assessment for Modification of the Mobile ODMDS, Mobile, Alabama." (EPA, 2020).

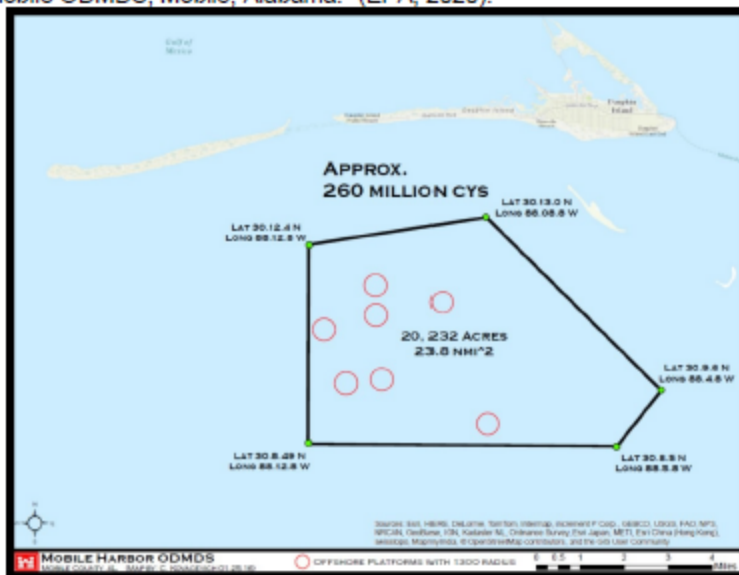


Figure 1. Mobile ODMDS Location Map

## 2.2 Management Objective

Appropriate management of an ODMDS is aimed at assuring that disposal activities do not unreasonably degrade or endanger human health, welfare, the marine environment or economic potentialities (MPRSA §103(a)). The primary objectives in the management of these ODMDSs are:

- Protection of the marine environment;
- Documentation of disposal activities and compliance; and
- Maintenance of a long-term disposal alternative for dredged material, while encouraging beneficial use of dredged material where practicable.



### 2.3 Disposal History and Dredged Material Volumes

Disposal history can be found at the Ocean Disposal Database maintained by the USACE (<https://odd.el.erdc.dren.mil>). The Mobile ODMD has been used for disposal of approximately 125 million cubic yards (cys) since 1987 (Table 2). Currently, the average annual disposal volume for the Mobile Harbor navigation maintenance is approximately 4.4 million cys. The composition of the dredged material is primarily silts and clays. Additionally, the Mobile Harbor Turning Basin (MHTB) constructed in 2010 requires annual maintenance dredging of approximately 400,000 cys, which may go to the ODMD. Future volumes and rates of disposal, from both Federal and private applicants, are expected to be similar to previous years. However, this estimate may increase if it is determined feasible to improve the Mobile Harbor Federal Navigation Project (FNP) to its congressionally authorized dimensions. Additionally, approximately 300,000 cys of sandy material is removed from the Bar channel annually and placed in the Sand Island Beneficial Use Area (SIBUA), rather than the Mobile ODMD to which this SMMP applies.

Date	Quantity in Cubic Yards
1987	101,400
1989	16,000,000
1990	6,755,400
1991	6,888,500
1992	4,939,400
1993	1,945,300
1994	2,400,000
1995	2,636,600
1996	3,028,400
1997	5,503,100
1998	7,425,100
1999	2,617,000
2000	5,911,300
2001	4,593,800
2002	4,101,400
2003	6,785,700
2004	7,848,900
2005	3,223,900
2006	2,546,600
2007	1,952,800
2008	2,235,993
2009	5,979,800
2010	4,361,670
2011	3,500,844
2012	1,592,204

2013	1,901,591
2014	2,037,900
2015	652,338
2016	2,200,000
2017	1,027,500
2018	2,319,480
<b>Total 125,013,920 disposed</b>	

Table 2. Mobile ODMDS disposed material volume

A change in dredging operations occurred in July 2014 with the permanent reinstatement of in-bay open-water disposal practices associated with operation and maintenance (O&M) dredged material (Public Notice FP14-MH01-10). The USACE, Mobile District anticipates approximately 1.5 million cys of material dredged from within Mobile Bay could potentially be placed, annually, at in-bay disposal areas adjacent to the Federal Mobile Harbor navigation project where it will be regulated under Section 404 of the Clean Water Act. Thus, of the anticipated volumes to be dredged annually from the Mobile Harbor Bay channel in order to maintain the existing Federal Mobile Harbor navigation project, only approximately 2.9 million cys of sediment are anticipated to be transported to and disposed of at the Mobile ODMDS.

The Mobile ODMDS has been determined to be a dispersive site, meaning disposed materials are expected to move outside the site boundaries over time, particularly during hurricane season (Byrnes *et al.*, 2010). However, the degree of dispersiveness of the site, and consequently the ultimate capacity of the Mobile ODMDS, is subject to unpredictable variability.

## 2.4 Dredged Material Characteristics

### 2.4.1 Mobile Harbor FNP

Grain size characteristics of the shoal material dredged from the Mobile Harbor FNP varies with location within the system. Shoal material from the Mobile River portions of the project is typically 46.3% sand and 52.3% silts/clays. Upper Mobile Bay sediments range from 8.7 -61.2% sand and 38.8-91.3% silts/clays. Sands within the Lower Mobile Bay range from less than 1% to 87.4%, whereas the silt/clay fraction accounts for 12.6 to 99% of the shoal material. Sediments from the Turning Basin are typically 66.3% sands and 34.1% silts/clays.

### 2.4.2 Associated Beach Quality Materials

USACE Beneficial Use of Dredged Material Engineer Manual (EM) 1110-2-5026 requires dredged material be maximized within the coastal system. Dredged materials that qualify for beach or near-shore placement per the applicable State standards shall

be beneficially placed in such locations, to the maximum extent practicable. It is expected that the applicable State will exercise its authority and responsibility, regarding beach nourishment, to the full extent during any future permitting activities. Beneficial use of beach compatible dredged material for beach nourishment is strongly encouraged and supported by EPA. Most sandy material is placed in the SIBUA located due east of the ODMDS, rather than at the ODMDS, to which this SMMP applies.

#### 2.4.3 Dredged Material Quality Verification

The suitability of dredged material for ocean disposal must be verified by the USACE and agreed to via written concurrence from EPA prior to transportation and disposal. EPA prepares its concurrences on sediment disposal at the ODMDS to be valid for up to three years, on a project specific basis, consistent with the three-year duration of USACE authorizations per 33 CFR 325.6.

Sediment quality verification process:

- 1) Case-specific evaluation against the exclusion criteria (40 CFR 227.13(b))
- 2) Determination of testing requirements for non-excluded material based on the potential of sediment contamination since last verification.
- 3) When applicable, conduct testing and confirm the suitability of non-excluded material for ocean disposal.

The permittee, project sponsor, or USACE completes documentation for suitability prior to use of the ODMDS in the form of a MPRSA Section 103 Evaluation." Potential testing and the evaluation follow the procedures outlined in the 1991 EPA/USACE Dredged Material Testing Manual and 2008 Southeast Regional Implementation Manual (SERIM), or the appropriate updated version. Necessary testing and evaluation include descriptions of how dredging projects will be subdivided into project segments for sampling and analysis. Appendix C of the SERIM outlines the form used for the MPRSA Section 103 Evaluation. Water Quality Compliance determinations will be made using the STFATE (ADDAMS) model. Only material determined to be suitable and in compliance with the Ocean Dumping Criteria (40 CFR Part 227) through the verification process by the USACE and EPA Region 4 is appropriate for transportation and disposal in the ODMDS.

#### 2.5 Time of Disposal

At present no restrictions have been determined to be necessary for disposal related to seasonal variations in ocean current or biotic activity at the Mobile ODMDS.

#### 2.6 Disposal Technique

No specific disposal technique is required for these sites. In order to protect sea turtles and Gulf sturgeon, however, the National Marine Fisheries Service (NMFS), Protected Resources Division (PRD) requires monitoring according to the *Regional Biological*

*Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by USACE Galveston, New Orleans, Mobile, and Jacksonville Districts* (NMFS, 2003 and amended 2005 & 2007). Site users transiting and disposing at the ODMDS will be required to employ standard surveillance and evasive measures to protect sea turtles and marine mammals.

### **2.7 Disposal Location**

The regulation at 40 CFR §227.28 requires that all disposals occur at least 330 feet (100 meters) inside ODMDS boundaries to prevent material from leaving the site. Release zones will be established by the EPA and the USACE at the time of site use to maintain compliance with the Ocean Dumping Criteria set forth in 40 CFR Part 227. Disposal will be initiated within the applicable release zone boundary and completed (i.e. doors closed) prior to leaving the ODMDS. Placement methods, which prevent mounding of dredged materials from becoming an unacceptable navigation hazard, must be used. Dredged material shall be disposed so that at no point will depths less than -25 feet Mean Lower Low Water (MLLW) occur (i.e., a clearance of 25 feet of water depth will be maintained). Disposal shall not occur closer than 1,300 feet to any oil and gas rigs that are present within the site boundaries. Disposal shall not occur closer than 500 feet to any historic properties that are present within the site boundaries. Those portions of the site that have been in continuous use are eligible for disposal. Updated maps of disposal locations at the Mobile ODMDS are available from EPA Region 4 or USACE Mobile District.

If necessary, the Corps may propose to use the previously unutilized (no disposal has been performed) portions of the ODMDS (the western portion) that were previously evaluated in a 1983 geotechnical survey. If the Corps proposes to use any portion of the previously unused area, the Corps will delineate the intended area and implement procedures as outlined in "Programmatic Agreement for the Mobile Harbor General Reevaluation Study (Project)" dated June 28, 2019, between USACE South Atlantic Mobile District and Alabama Historic Commission in order to protect potential historic properties. During the EPA's MPRSA Section 103 evaluations for proposed disposal of dredged material in the ODMDS, the EPA will include any necessary limitations regarding the location of dredged material disposal as a condition of concurrence decisions in order to prevent impacts to potential historic properties. The USACE Mobile District and the EPA Region 4 will provide a map denoting area to be avoided, upon request.

### **2.8 Summary of Transit and Disposal Requirements in the SMMP**

The site designation regulation at 40 C.F.R. 228.15(H)14, requires that transit and disposal at the Mobile ODMDS comply with the provisions of the SMMP that are identified in Table 3. Further, the disposal monitoring and post-disposal monitoring

requirements described under Section 3.0. Site Monitoring will be included with the management requirements described in this section as permit conditions on all MPRSA Section 103 permits and will be incorporated in the contract language for all federal projects. Draft language provided by USACE is available for this purpose to be included by USACE in permits (Appendix B) and contracts (Appendix C). EPA's concurrence review will confirm implementation.

**Table 3. Summary of Disposal Requirements.**

Requirement	Reference
Dredged Material Quality Verification	Mobile ODMDS SMMP 2.4.3
Disposal Technique	Mobile ODMDS SMMP 2.6
Disposal Location	Mobile ODMDS SMMP 2.7
Leakage	Mobile ODMDS SMMP 3.2
Marine Mammal Avoidance	Mobile ODMDS SMMP 2.6
Bathymetric surveys	Mobile ODMDS SMMP 3.1 and 3.3
Disposal Monitoring	Mobile ODMDS SMMP 3.2
Reporting Requirements	Mobile ODMDS SMMP 3.5

### **2.9 Ocean Dumping Criteria (ODC) Compliance Process**

All disposal of dredged material in the ocean must comply with the ODC and EPA reviews the demonstrations of compliance when reviewing permits and projects for concurrence. Projects that are not Federal Civil Works, or other federal projects involving ocean disposal of dredged material, require an ocean dumping permit issued by the USACE pursuant to Section 103 of the MPRSA. Federal Civil Works projects, though not required to have a permit, must adhere to the same criteria, factors to be evaluated, procedures, and requirements that apply that apply to permits, including the process for evaluation of the project, and must receive EPA's concurrence prior to awarding any contract for transportation and disposal of dredged material at an ODMDS. A summary of the permitting process can be found at:

<https://www.epa.gov/ocean-dumping/ocean-disposal-dredged-material>.

### **2.10 Information Management of Dredged Material Disposal Activities**

As part of site management, EPA and the USACE will continue to investigate alternatives for appropriate data management. The USACE has an Ocean Disposal Database (<https://odd.ei.erd.c.dren.mil/>) maintained by the Engineering Research and Development Center (ERDC). This database provides the quantities disposed of at the ODMDS and whether the project is from a civil works project or private entity. EPA Region 4 and USACE South Atlantic Division (SAD) have agreed on using an extensible Markup Language (XML) standard for sharing of disposal monitoring data (see also Section 3.5).

### 3.0 SITE MONITORING

Under the SMMP, site monitoring is conducted to ensure the environmental integrity of a disposal site and the areas surrounding the site, as well as to verify compliance with the site designation criteria, any special management conditions, and permit requirements. Monitoring programs should be flexible, cost effective, and based on scientifically sound procedures and methods to meet site-specific monitoring needs. The intent of the program is to provide the following:

- (1) Information indicating whether the disposal activities are occurring in compliance with the permit and site restrictions;
- (2) Information indicating the short-term and long-term fate of materials disposed of in the marine environment.
- (3) Information concerning the short-term and long-term environmental impacts of the disposal;

The main purpose of a disposal site monitoring program is to determine whether dredged material site management practices, including disposal operations, at the site need to be changed to avoid significant adverse impacts.

#### **3.1 Baseline Monitoring**

The results of investigations presented in the designation EIS (EPA, 1987) and subsequent surveys listed in Table 4 serve as the main body of data for the monitoring of impacts associated with use of the Mobile ODMDS and serve, in part, as baseline data for future use of the ODMDS. Previous monitoring studies included the ODMDS as well as the surrounding environs, therefore EPA has a database which can serve as baseline data for future monitoring. The most recent survey of the benthic communities within and surrounding the Mobile ODMDS was conducted in October 2017. Because the expansion plans had already been finalized, this survey covered all areas needed to secure an adequate baseline that could be used for future impacts assessment. The results of the most recent survey are summarized below. A bathymetric survey will be conducted by the USACE or site user within three (3) months prior to project disposal for projects expected to exceed 50,000 cys in the area to be utilized within the ODMDS. Bathymetric surveys will be used to monitor the dredged material to ensure a navigation hazard is not produced, to assist in verification of material disposal and containment in the site, to monitor bathymetry changes and trends and to ensure that the site capacity is not exceeded (i.e., the dredged sediments do not exceed the site boundaries at depths expected to have impacts to the benthos) nor are too shallow. Surveys will conform to the minimum performance standards for Corps of Engineers Hydrographic

Surveys for "Other General Surveys & Studies" as described in the USACE Engineering Manual, EM1110-2-1003, *Hydrographic Surveying* dated November 30, 2013 [[http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM\\_1110-2-1003.pdf?ver=2014-01-06-155809-307](http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-1003.pdf?ver=2014-01-06-155809-307)]. The number and length of transects required will be sufficient to encompass the zone of use and a 500-foot wide area around the release zone. The surveys will be taken along lines spaced at 500-foot intervals or less. The minimum performance standards from Table 3-1 of EM 1110-2-1003, *Hydrographic Surveying*, will be followed. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing a differential global positioning system. The vertical datum will be referenced to prescribed National Oceanic and Atmospheric Administration (NOAA) MLLW datum. The horizontal datum should be referenced to the local State Plane Coordinate System (SPCS) for that area or in Geographical Coordinates (latitude-longitude). The horizontal reference datum should be the North American Datum of 1983 (NAD 83). No additional pre-disposal monitoring is required.

Table 4. Surveys and Studies Conducted in the vicinity of the Mobile ODMDS

Survey/Study Title	Conducted By:	Date	Purpose	Results
Analysis & Synthesis of Oceanic Conditions in the Mississippi Sound Offshore Region	USACE	March 1984	Determine the direction and amount of sediment transport from a dredged material disposal site.	Circulation patterns within the site are controlled by astronomical tides, winds, and freshwater discharges.
Sediment Mapping	UGA Center for Applied Isotopes for EPA	2002	Characterization of bottom sediments using gamma spectrometry.	Baseline Survey
Mobile ODMDS Expansion Survey	USACE/EPA	October 2009	Collect physical, chemical and biological data on sediments and water.	Collected and analyzed 30 sediment and 10 water samples covering entire ODMDS.
Mobile ODMDS Post Oil Spill Sediment Sampling	USACE	December 2010	Determine if any oil from the Deep-Water Horizon Oil Spill has contaminated the sediments.	Test results published February 2011 indicate there were no discernible changes in the sediment quality attributed to the Deepwater Horizon Oil Spill.
Bathymetric Survey	USACE	Before and After Event	Monitor bathymetry changes.	Safe navigation depths have been maintained.

Trends assessment survey	EPA	October 2017	Examine potential changes to chemical, biological, and physical characteristic within the used portion of the ODMDS and to establish background data on the same for the unused portion.	Fine sediments are present on the northern boundary of the site and become larger (sand) to the south. Arsenic is naturally present at all sites. Dioxins were detectable at all sites, but not above levels of concern. Macroinvertebrate statistics were the same inside the previously utilized portions of the site as those not utilized. Overall, data present that no significant changes have occurred at the site due to disposal of dredged material.
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In 2017, the macroinfauna taxa dominating the assemblages at stations both inside and outside the ODMDS were very similar and typical of those found in nearshore shallow water benthic habitats (Felder and Kemp 2009). In 2017, taxa richness, densities, and diversity at stations inside the active ODMDS site were not significantly different when compared to 2009. There was no significant difference in taxa richness, density, and diversity between stations inside and outside the ODMDS in 2017 (US EPA, 2017). These data indicate that the abundance and diversity of the macroinfaunal assemblages in the active ODMDS site have reached background levels.

### 3.2 Disposal Monitoring

For all disposal activities, permits and projects will require use of an electronic tracking system (ETS). Appendices B and C provide template language. An ETS provides surveillance of the transportation and disposal of dredged material. An ETS is maintained and operated to continuously track the horizontal location and draft condition (accuracy± 0.1 foot) of the disposal vessel (i.e. hopper dredge or disposal scow) from the point of dredging to the disposal site and return to the point of dredging. Data shall be collected at least every 0.25 nautical mile or every four minutes during travel to and from the ODMDS and every 12 seconds or every 30 feet of travel within the ODMDS and while hull status is open. In addition to the continuous tracking data, the following trip information shall be electronically recorded for each disposal cycle:

- a. Load Number
- b. Disposal Vessel Name and Type (e.g. scow)
- c. Estimated volume of Load
- d. Description of Material Disposed
- e. Source of Dredged Material



f. Date, Time and Location at Initiation and Completion of Disposal Event

It is expected that disposal monitoring will be conducted utilizing the Dredge Quality Management (DQM) system [see <http://dgm.usace.army.mil/Specifications/Index.aspx>], or equivalent acceptable system. Disposal monitoring and ETS data will be reported to EPA Region 4 on a weekly basis (within one week of disposal) utilizing the eXtensible Markup Language (XML) specification and protocol per Section 3.5. EPA Region 4 and the USACE District require notification within 24 hours if disposal occurs outside of the ODMDS or specified disposal zone, if excessive leakage occurs, if hull open status occurs outside the ODMDS, or other violation of the conditions in this SMMP occur. Correspondence will be required to explain how the issue was addressed, pertinent dates, and corrective actions to be implemented to prevent repetition in the future.

### ***3.3 Post Discharge Requirements***

The USACE, or other site user, will be required to conduct a bathymetric survey consistent with the pre-disposal survey requirements within 30 days after disposal project completion. Surveys will not be required for projects less than 50,000 cys. If a release zone is utilized and adhered to, the number and length of transects required will be sufficient to encompass the release zone and a 500-foot wide area around it. Bathymetric surveys will be required to monitor the disposal mound to ensure a navigation hazard is not produced, to assist in verification of material disposal, to monitor bathymetry changes and trends, and to ensure that the site capacity is not exceeded, i.e., the dredged sediment does not exceed the site boundaries on disposal.

### ***3.4 Disposal Effects Monitoring***

Based on the type and volume of material disposed, various monitoring techniques can be used to examine if the disposed dredged material is moving and in what direction. There are also techniques to assess potential environmental effects that the material is having on the site and adjacent areas. At the current time, no nearby biological resources (hard-bottom habitat) have been identified that are likely to be impacted by disposal operations at the ODMDS. The Mobile ODMDS is at least one nautical mile from all known fish havens, artificial reefs, and fishing areas. The site has been characterized as dispersive, meaning material is likely to move outside the site boundaries over time due to ocean currents and that disposed dredged material does not move in distinct mounds, but instead blends with the surrounding environment causing a progressive transition to sediments containing a higher percentage of silt and clay consistent with the composition of the material found on the north side of the ODMDS. Changes in sediment composition will likely alter the benthic community structure. However, based on previous benthic studies, it is unlikely that permanent or long-term adverse impacts will result due to changes in sediment composition. At a minimum, a Trend Assessment Survey (40 CFR 228.13) will be conducted approximately every ten years. The Trend Assessment surveys focus on overall health

and viability of the benthic communities and compare areas where disposal has occurred to areas where it has not. Such a survey will be used to detail temporal changes that may be occurring across benthic communities in the northern Gulf of Mexico relative to the ODMDS.

Based on the type and volume of material disposed and impacts of concern, various monitoring surveys can be used to examine whether the disposed dredged material is moving, where it moves, and the environmental effect the material on the site and adjacent areas. A tiered approach will be utilized to determine the level of monitoring effort required following each disposal event. At a minimum, bathymetry will be required to be conducted after all disposal events in excess of 50,000 cubic yards, along with requirements for detailed summary project reports certifying either total compliance with all disposal requirements, or explanations of when and where any deviations occur accompanied by a description of actions taken to remedy the cause for such deviations. Template language for contracting for use of the ODMDS is contained in Appendix C.

A tiered strategy for a monitoring program is desirable. With a tiered approach, an unacceptable result may trigger further and often more complex monitoring. Continuous monitoring of all physical, chemical, and biological parameters and resources in and around the ocean dredged material disposal site is not necessary. A monitoring program should be structured to address specific questions (hypotheses) and measure key indicators and endpoints, particularly those defined during site designation or specific project issues that arise. For the Mobile ODMDS, the site expansion environmental assessment did not identify any hard bottoms in nearby waters as resources of concern. These resources were not present within, nor adjacent to, the site. Therefore, the benthic community will serve as the major indicator for identifying adverse impact from dumping. At a minimum, the Trend Assessment Study will be conducted approximately once every ten years. These surveys will be performed in accordance with 40 CFR 228.13. Results from these surveys will be used to assess the need for further, more detailed and complex studies. Table 5 shows how a progression from simple Trends study to Impact assessment studies may occur.

The SMMP Team will continue to use the phased approach to suggest appropriate monitoring techniques and level of monitoring required for a specific action. Team suggestions are based on type of disposal activity (i.e., O&M vs. construction), quality of material, location of placement activity within ODMDS, or quantity of material. EPA and USACE will ultimately determine the actual monitoring activities to be required.

Future surveys as outlined in Table 5 will focus on determining the rate and direction of disposed dredged material dispersal and the capacity of the ODMDS. Should future disposal at the Mobile ODMDS result in unacceptable adverse impacts, further studies may be required to determine the persistence of these impacts, the extent of the

impacts within the marine system, and/or possible means of mitigation. In addition, this SMMP may be revised based on the outcome of the monitoring program.

### *3.5 Post-Disposal Monitoring*

The Corps or other site users will conduct a bathymetric survey for all projects which exceed 50,000 cubic yards within 30 days after disposal project completion.

Table 5. Site Monitoring Strategies and Thresholds for Action

Goal	Technique	Sponsor	Rationale	Frequency	Threshold for Action	Management Options	
						Threshold Not Exceeded	Threshold Exceeded
Monitor Bathymetric Trends	Bathymetry	Site User	Determine the extent of the disposal mound and major bathymetric changes.	Post-Disposal for projects greater than 50,000 cy.	Disposal mound occurs outside ODMDS boundaries.	Continue monitoring.	-Modify disposal method/disposal. -Restrict disposal volumes.
Model Bathymetric Capacity	Bathymetry and capacity modeling	Site User or USACE	Determine that large project volumes can be accommodated based on most recent bathymetry.	For any projects occurring after 2024 that are 5 million cy or larger.	Verify that disposal will remain in the ODMDS at proposed (maximal) volume.	No action.	-Modify disposal. -Restrict disposal volumes. -Expand of modify the site.
Benthic Effects Monitoring & Trend Assessment (40 CFR §228.13)	Sediment Mapping (Gamma/CS <sup>2</sup> )	EPA	Determine aerial influence of dredged material.	Approximately every 10 years.	Absence of pollution sensitive biota from the site.	Continue monitoring on prescribed schedule.	-Conduct Environmental Effects Monitoring or Advanced Environmental Effects Monitoring.
	Water and Sediment Quality, Benthic Community Analysis (40CFR §228.13)	EPA	Periodically evaluate the impact of disposal on the marine environment (40CFR §228.9).	Approximately every 10 years.	-Progressive non-seasonal changes in water or sediment quality.		-Review dredged material evaluation procedures and amend, if necessary. Discontinue site use. De-designate site.
Environmental Effects Monitoring	Chemical Monitoring	EPA/USACE	Determine if sediment chemical contaminants are	Implement if disposal footprint	Contaminants are found to be elevated in dredged sediments. <sup>1</sup>	Discontinue specific event monitoring.	-Conduct directed, specific contaminant monitoring to define extent of management

Goal	Technique	Sponsor	Rationale	Frequency	Threshold for Action	Management Options	
						Threshold Not Exceeded	Threshold Exceeded
	Benthic Monitoring		significantly elevated <sup>1</sup> within, and outside of, site boundaries. Determine whether there are adverse changes in the benthic populations outside of the site and evaluate recovery rates.	extends beyond the site boundaries or Assessment results warrant.	Adverse changes observed outside of the site that may endanger the marine environment.		action required. -Perform biological testing on ODMDS samples. -Review and potentially alter dredged material evaluation procedures.
Advanced Environmental Effects Monitoring	Tissue Chemical Analysis	EPA/ USACE	Determine if the site is a source of adverse bioaccumulation which may endanger the marine environment.	Implement if Environmental Effects Monitoring warrants.	Benthic body burdens and risk assessment models indicate potential for food chain impacts.	Discontinue monitoring.	- Implement case-specific management options (i.e. Remediation, limits on quantities or types of material). - Discontinue site use.
	Benthic Monitoring		Determine if the site is a source of adverse sub-lethal <sup>2</sup> changes in benthic organisms which may endanger the marine environment.		Sub-lethal effects are unacceptable.		
Ensure Safe Navigation Depth & Monitor	Bathymetry	Site User	Determine height of mound and any excessive mounding.	Pre & Post disposal for projects	Mound height > -30 feet mean lower low water (MLLW).	Continue Monitoring.	-Modify future disposal method/disposal. -Restrict disposal volumes.

Goal	Technique	Sponsor	Rationale	Frequency	Threshold for Action	Management Options	
						Threshold Not Exceeded	Threshold Exceeded
Bathymetric Trends				greater than 50,000 cy.	Mound height > -25 feet MLLW.	Continue Monitoring.	- Physically level material.
Compliance	Disposal Site Use Records & DQM data	Site User	-Ensure management requirements are being met.	Continuously during the project with weekly reports to project manager/EPA.	Disposal records required by SMMP are not submitted or are incomplete.  Review of records indicates a dump occurred outside ODMDS boundary, excessive leakage en route to disposal.	Continue monitoring.	-Restrict site use until requirements are met.
						Continue constant monitoring and reporting.	-Notify EPA Region 4 & USACE and investigate why non-compliance occurred. -Verify corrective actions to be enacted; or -Take appropriate enforcement action.

<sup>1</sup> Significantly elevated: Concentrations above the range of contaminant levels in dredged sediments that the Regional Administrator and the District Engineer found to be suitable for disposal at the ODMDS.

<sup>2</sup> Examples of sub-lethal effects include without limitation the development of lesions, tumors, development abnormality, and/or decreased fecundity.

### 3.5 Reporting and Data Formatting

#### 3.5.1 Project Initiation and Violation Reporting Requirements

The USACE will notify (or other site user will be required to notify) EPA 15 days prior to the beginning of a dredging cycle or disposal project. The user also will be required to notify the USACE and EPA within 24 hours if a violation of the permit and/or contract conditions related to required terms of the permit or project authorization occur during disposal operations.

#### 3.5.2 Disposal Monitoring Data

Disposal monitoring will be conducted ideally utilizing the Dredge Quality Management (DQM) system [see <http://dqm.usace.army.mil/Specifications/Index.aspx>], although other systems are acceptable. The Corps will provide (or require another user to provide) disposal monitoring data to EPA Region 4 electronically on a weekly basis (within one week of disposal event), per EPA Region 4 XML format and delivered as an attachment to an email to [DisposalData.R4@epa.gov](mailto:DisposalData.R4@epa.gov). The XML format is available from EPA Region 4.

#### 3.5.3 Post Disposal Summary Reports

A site user will be required to provide a Post-Disposal Summary Report to EPA within 90 days after project completion. Post-Disposal reports will be required to include: vessel name, disposal start and end dates and times; dredging project; volume disposed, number of loads completed, type of material disposed; name of contractor conducting the work, permit and/or contract number; identification of any misplaced material; and dates of bathymetric surveys of the ODMDS. The disposal summary reports must be submitted with the bathymetry survey results (contour plot and X, Y, Z ASCII data file) and can be accessed by USACE personnel at the DQM Website: <http://dqm-portal.usace.army.mil>.

#### 3.5.4 Environmental Monitoring

EPA and/or the USACE will coordinate material tracking, disposal effects monitoring and any other data collected and provided to SMMP team members and federal and state agencies as appropriate. Data will be available to other interested parties upon request to the extent possible. The report should indicate how the survey relates to the SMMP and previous surveys at the Mobile ODMDS and should provide data interpretations, conclusions, and recommendations, and should project the next phase of the SMMP. Monitoring results will be summarized in subsequent modifications to the SMMP posted to EPA's website (<https://www.epa.gov/ocean-dumping>.)

#### 4.0 MODIFICATION OF THE MOBILE ODMDS SMMP

If the results of monitoring surveys, reports from other sources, or modeling results indicate that continued use of the ODMDS would lead to unacceptable effects, then the management of the ODMDS will be modified to mitigate the effects or, if necessary, the site use may be terminated. For example, significant changes to the quantity or type of dredged material disposed on site may trigger SMMP review and revision. The plan should be updated in conjunction with activities authorizing use of the site.

#### 5.0 IMPLEMENTATION OF THE MOBILE ODMDS SMMP

This plan is effective and available for implementation from the date of signature for a period not to exceed ten years. EPA, in conjunction with the USACE, will review and revise more frequently if site use and conditions at the site indicate a need for revision. EPA and USACE share responsibility for implementation of the SMMP. Site users may be required to undertake monitoring activities as a condition of their permit. The USACE and any USACE contractor will remain responsible for implementation of the SMMP for Federal new work and maintenance projects.

#### 6.0 REFERENCES

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U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, 1996. *Guidance Document for Development of Site Management Plans for Ocean Dredged Material Disposal Sites*, February 1996. Prepared by Environmental Protection Agency Office of Water and Department of Army United States Army Corps of Engineers.

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## **Mobile SMMP Appendix A**

# **WATER COLUMN EVALUATIONS NUMERICAL MODEL (STFATE) INPUT PARAMETERS MOBILE ODMDS**

## Appendix A: Water Column Evaluations Numerical Model (STFATE) Input Parameters Mobile ODMDS

### SITE DESCRIPTION

Parameter	Value	Units
Number of Grid Points (left to right)	96	
Number of Grid Points (top to bottom)	96	
Spacing Between Grid Points (left to right)	500	Ft
Spacing Between Grid Points (top to bottom)	500	Ft
Constant Water Depth	46	Ft
Roughness Height at Bottom of Disposal Site	.005 <sup>1</sup>	Ft
Slope of Bottom in X-Direction	0	Deg.
Slope of Bottom in Z-Direction	0	Deg.
Number of Points in Ambient Density Profile Point <sup>1</sup>	3	
Ambient Density at Depth = 3 ft	1.0206	g/cc
Ambient Density at Depth = 26 ft	1.0206	g/cc
Ambient Density at Depth = 46 ft	1.0207	g/cc

<sup>1</sup> from EPA Mobile ODMDS Designation Survey Report (2009) for Zone A

### AMBIENT VELOCITY DATA

Parameter	Value	Units
Profile <sup>2</sup>	2-Point at constant depth	
X-Direction Velocity = 11 feet	0.12	ft/sec
Z-Direction Velocity = 11 feet	-0.41	ft/sec
X-Direction Velocity = 33 feet	0.22	ft/sec

Parameter	Value	Units
Z-Direction Velocity = 33 feet	-0.37	ft/sec

<sup>2</sup> from EPA Mobile ODMDS Designation Survey Report (2009)

**DISPOSAL OPERATION DATA**

Parameter	Value	Units
Location of Disposal Point from Top of Grid	16,400	Ft
Location of Disposal Point from Left Edge of Grid	28,800	Ft
Dumping Over Depression	0	

**INPUT, EXECUTION AND OUTPUT**

Parameter	Value	Units
Location of the Upper Left Corner of the Disposal Site - Distance from Top Edge	4,500	Ft
Location of the Upper Left Corner of the Disposal Site - Distance from Left Edge	9,000	Ft
Location of the Lower Right Corner of the Disposal Site - Distance from Top Edge	28,000	Ft
Location of the Lower Right Corner of the Disposal Site - Distance from Left Edge	46,000	Ft
Duration of Simulation	14,400	sec
Long Term Time Step	600	sec

**COEFFICIENTS**

Parameter	Keyword	Value
Settling Coefficient	BETA	0.000 <sup>1</sup>
Apparent Mass Coefficient	CM	1.000 <sup>1</sup>
Drag Coefficient	CD	0.500 <sup>1</sup>
Form Drag for Collapsing Cloud	CDRAG	1.000 <sup>1</sup>
Skin Friction for Collapsing Cloud	CFRIC	0.010 <sup>1</sup>
Drag for an Ellipsoidal Wedge	CD3	0.100 <sup>1</sup>
Drag for a Plate	CD4	1.000 <sup>1</sup>
Friction Between Cloud and Bottom	FRICTN	0.010 <sup>1</sup>
4/3 Law Horizontal Diffusion Dissipation Factor	ALAMDA	0.001 <sup>1</sup>
Unstratified Water Vertical Diffusion Coefficient	AKYO	Pritchard Expression
Cloud/Ambient Density Gradient Ratio	GAMA	0.250 <sup>1</sup>
Turbulent Thermal Entrainment	ALPHAO	0.235 <sup>1</sup>
Entrainment in Collapse	ALPHAC	0.100 <sup>1</sup>
Stripping Factor	CSTRIP	0.003 <sup>1</sup>

<sup>1</sup> Model Default Coefficient

Mobile ODMDS Background Water Concentration.	
Chemicals of Concern	Background Concentration Levels (µg/l)
Arsenic	1.66 <sup>1</sup>
Cadmium	0.01 <sup>1</sup>
Chromium (VI)	0.75 <sup>1</sup>
Copper	1.11 <sup>1</sup>
Lead	0.75 <sup>1</sup>
Mercury	0.10 <sup>1,2</sup>
Nickel	0.75 <sup>1</sup>
Selenium	0.23 <sup>1</sup>
Silver	0.005 <sup>1</sup>
Zinc	3.78 <sup>1</sup>
Cyanide	
Tributyltin (TBT)	0.025 <sup>1,2</sup>
Aldrin	0.005 <sup>1,2</sup>
Chlordane	0.10 <sup>1,2</sup>
DDT	0.05 <sup>1,2</sup>
Dieldrin	0.005 <sup>1,2</sup>
alpha - Endosulfan	0.005 <sup>1,2</sup>
beta - Endosulfan	0.005 <sup>1,2</sup>
Endrin	0.005 <sup>1,2</sup>
gamma-BHC (Lindane)	0.005 <sup>1,2</sup>
Heptachlor	0.005 <sup>1,2</sup>
Heptachlor Epoxide	0.005 <sup>1,2</sup>
Toxaphene	.25 <sup>1,2</sup>
Pentachlorophenol	5.0 <sup>1,2</sup>

<sup>1</sup> Mobile ODMDS Site Designation Study (2010)

<sup>2</sup> Pensacola ODMDS Trend Assessment Study (2013)

<sup>3</sup> Analyte not detected. Value based on one half the reporting limit.

**Mobile SMMP  
Appendix B**

**TEMPLATE  
For  
Generic Special Conditions  
For  
MPRSA Section 103 Permits  
Mobile ODMDS**



## Appendix B: TEMPLATE OF GENERIC SPECIAL CONDITIONS FOR MPRSA SECTION 103 PERMITS FOR THE MOBILE ODMDS

MPRSA section 102(c)(3) directs EPA in conjunction with the USACE to develop site management and monitoring plans for dredged material disposal sites and such plans are implemented through MPRSA permits issued by USACE or through Federal projects subject to the same criteria, evaluation factors, procedures and requirements as permits. EPA in conjunction with USACE developed the template language below for inclusion in permits, though the template language is intended to be include on a case-by-case basis. Neither the SMMP nor this Appendix impose requirements on a permittee. Instead, the terms of any particular permit would impose (or not) requirements specific to the permitted activity. The USACE is not obligated to impose any particular permit term based on the template language; the language is provided to facilitate USACE permit development and to provide notice to third parties. For any future permit, EPA's concurrence review would confirm that appropriate terms are included to assure adequate implementation of the SMMP.

### I. DISPOSAL OPERATIONS

A. For this permit, the term disposal operations shall mean: navigation of any vessel used in disposal of operations, transportation of dredged material from the dredging site to the Mobile ODMDS, proper disposal of dredged material at the disposal area within the Mobile ODMDS, and transportation of the hopper dredge or disposal barge or scow back to the dredging site.

B. The Mobile ODMDS is defined as the trapezoid with corner coordinates as follows:

Mobile ODMDS Corner Coordinates (North American Datum (NAD) 83))	
Latitude 30° 13.0' N	Longitude 88° 08.8' W
Latitude 30° 09.6' N	Longitude 88° 04.8' W
Latitude 30° 08.5' N	Longitude 88° 05.8' W
Latitude 30° 08.5' N	Longitude 88° 12.8' W
Latitude 30° 12.4' N	Longitude 88° 12.8' W

C. No more than [NUMBER] cubic yards of dredged material excavated at the location defined in [REFERENCE LOCATION IN PERMIT] are authorized for disposal at the Mobile ODMDS.

D. The permittee shall use an electronic positioning system to navigate to and from the Mobile ODMDS. For this section of the permit, the electronic positioning system will be

as per the DQM specifications. If the electronic positioning system fails or navigation problems are detected, all disposal operations shall cease until the failure or navigation problems are corrected.

E. The permittee shall certify the accuracy of the electronic positioning system proposed for use during disposal operations at the Mobile ODMS. The certification shall be accomplished by providing current certification documentation from the National DQM Program for scow and hopper dredge instrumentation systems. The National DQM certification is valid for one year from the date of certification.

F. This permit does not authorize leakage or spillage out of barges, dump scows, or hopper dredges of water and/or excavated material while en route to the ODMS disposal release zone(s). Failure to repair leaks or change the method of operation which is resulting in the leakage or spillage will result in the suspension of dredging operation and require prompt repair or change of operation as prerequisite to the resumption of dredging. Transit to the ODMS begins as soon as dredged material loading into the disposal vessel is completed and the vessel begins moving to the ODMS. All appropriate measures to avoid spillage during transit must be taken. Appropriate measures may include but are not limited to: up-to-date U.S. Coast Guard and/or American Bureau of Shipping certification of all disposal-related vessels; maintenance (inspection and/or replacement) of gaskets on barge doors, minimization of excess free liquids in barge loads, pre-transit testing of barge door hydraulics, and pre-transport verification of appropriate weather and sea state conditions. EPA Region 4 and the USACE Mobile District shall be notified within 24 hours (or the next business day) if any apparent leaking or spilling of dredged material occurs as indicated by an average loss of draft during transit from the dredging area to the disposal release zone(s) (forward draft loss plus aft draft loss divided by 2) in excess of x.x. feet. In addition, the permittee understands that no debris is to be placed in the Mobile ODMS.

G. A disposal operations inspector and/or captain of any tugboat, hopper dredge or other vessel used to transport dredged material to the Mobile ODMS shall insure compliance with disposal operation conditions defined in this permit.

1. If the disposal operations inspector or the captain detects a violation, he shall report the violation to the permittee immediately.

2. The permittee shall contact the U.S. Army Corps of Engineers, Mobile District's Regulatory Branch (251) 690-2658 and EPA Region 4 at OceanDumpingR4@epa.gov or (404) 562-9300 to report the violation within twenty-four (24) hours after the violation occurs. A complete written explanation of any permit violation shall be included in the post-dredging report.

H. When dredged material is disposed, no portion of the hopper dredge or disposal barge or scow shall be outside of the boundaries of the Mobile ODMDS as defined in Special Condition B. Additionally, disposal shall occur within a specified disposal zone defined as [DEFINE COORDINATES AND SIZE OF DISPOSAL ZONE]. Disposal shall not occur closer than 1,300 feet to any oil or gas rig that may be present within the site boundaries.

I. The permittee shall use an automated disposal verification system that is certified by the National DQM program to continuously track the horizontal location and draft condition of the disposal vessel (hopper dredge or disposal barge or scow) to and from the Mobile ODMDS. This real-time information is available on-line to the Mobile District and will be provided to EPA Region 4 on a weekly basis via email using the eXtensible Markup Language (XML) specification and protocol. Data shall be provided per the EPA Region 4 XML format and delivered as an attachment to an email to R4\_DisposalData@epa.gov. The XML format is available from EPA Region 4.

J. The permittee shall conduct a bathymetric survey of the Mobile ODMDS within 30 days of a disposal event following project completion.

1. The number and length of the survey transects shall be sufficient to encompass the defined disposal zone within the Mobile ODMDS and a 500-foot-wide area around the disposal zone. Transects shall be spaced at 500-foot intervals or less with a depth recording density of 20 to 70 feet.

2. Vertical accuracy of the survey shall be  $\pm 0.1$  feet. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing either microwave line of site system or differential global positioning system. The vertical datum will be referenced to prescribed NOAA Mean Lower Low Water (MLLW) datum. MLLW is 1.8 feet below NGVD 1929. The horizontal datum will be Alabama State Plane (zone 0102 Alabama West) or Geographic (NAD 1983). State Plane coordinates shall be reported to the nearest 0.10 foot and latitude and longitude coordinates shall be reported as degrees and decimal minutes to the nearest 0.01 minutes.

K. The permittee has read and agrees to assure its actions are consistent with any revisions to the Mobile ODMDS Site Management and Monitoring Plan (SMMP) in effect at the time of permit issuance.

The permittee shall not transport dredged material to the Mobile ODMDS until it confirms that EPA has concurred that the proposed dredge material meets the Ocean Disposal Criteria as given in 40 CFR Part 227.

L. Enclosed is the Gulf Regional Biological Opinion (GRBO) dated [INSERT DATE], for

H. When dredged material is disposed, no portion of the hopper dredge or disposal barge or scow shall be outside of the boundaries of the Mobile ODMDS as defined in Special Condition B. Additionally, disposal shall occur within a specified disposal zone defined as [DEFINE COORDINATES AND SIZE OF DISPOSAL ZONE]. Disposal shall not occur closer than 1,300 feet to any oil or gas rig that may be present within the site boundaries.

I. The permittee shall use an automated disposal verification system that is certified by the National DQM program to continuously track the horizontal location and draft condition of the disposal vessel (hopper dredge or disposal barge or scow) to and from the Mobile ODMDS. This real-time information is available on-line to the Mobile District and will be provided to EPA Region 4 on a weekly basis via email using the eXtensible Markup Language (XML) specification and protocol. Data shall be provided per the EPA Region 4 XML format and delivered as an attachment to an email to R4\_DisposalData@epa.gov. The XML format is available from EPA Region 4.

J. The permittee shall conduct a bathymetric survey of the Mobile ODMDS within 30 days of a disposal event following project completion.

1. The number and length of the survey transects shall be sufficient to encompass the defined disposal zone within the Mobile ODMDS and a 500-foot-wide area around the disposal zone. Transects shall be spaced at 500-foot intervals or less with a depth recording density of 20 to 70 feet.

2. Vertical accuracy of the survey shall be  $\pm 0.1$  feet. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing either microwave line of site system or differential global positioning system. The vertical datum will be referenced to prescribed NOAA Mean Lower Low Water (MLLW) datum. MLLW is 1.8 feet below NGVD 1929. The horizontal datum will be Alabama State Plane (zone 0102 Alabama West) or Geographic (NAD 1983). State Plane coordinates shall be reported to the nearest 0.10 foot and latitude and longitude coordinates shall be reported as degrees and decimal minutes to the nearest 0.01 minutes.

K. The permittee has read and agrees to assure its actions are consistent with any revisions to the Mobile ODMDS Site Management and Monitoring Plan (SMMP) in effect at the time of permit issuance.

The permittee shall not transport dredged material to the Mobile ODMDS until it confirms that EPA has concurred that the proposed dredge material meets the Ocean Disposal Criteria as given in 40 CFR Part 227.

L. Enclosed is the Gulf Regional Biological Opinion (GRBO) dated [INSERT DATE], for

swimming sea turtles, whales, and sturgeon. The GRBO contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the GRBO. Authorization for transportation and ocean disposal of dredged material at the Mobile ODMDS under the U.S. Army Corps of Engineers (USACE) permit is conditional upon compliance with all of the mandatory terms and conditions associated with the incidental take of the attached GRBO, which terms and conditions are incorporated by reference in the permit. Failure to comply with the terms and conditions associated with the incidental take of the GRBO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your USACE permit. Depending on the affected species, National Marine Fisheries Service (NMFS) is the appropriate authority to determine compliance with the terms and conditions of its GRBO and with the Endangered Species Act. For further clarification of this point, contact the project managers at USACE and the NMFS. Should a determination be made that the conditions of the GRBO have been violated, the violation may be enforced administratively by EPA, or referred to the Department of Justice for further investigation and appropriate enforcement.

## II. REPORTING REQUIREMENTS

- A. The permittee shall send the U.S. Army Corps of Engineers, Mobile District's Regulatory Branch and EPA Region 4's Ocean, Wetlands, and Streams Protection Branch (61 Forsyth Street SW, Atlanta, GA 30303) a notification of commencement of work at least 15 days before initiation of any dredging operations authorized by this permit.
- B. The permittee shall submit to the U.S. Army Corps of Engineers and EPA Region 4 weekly disposal monitoring reports. These reports shall contain the information described in Special Condition I.
- C. The permittee shall develop and send one copy of the disposal summary report to the Mobile District's Regulatory Branch and one copy of the disposal summary report to EPA Region 4 documenting compliance with all general and special conditions defined in this permit. The disposal summary report shall be sent within 90 days after completion of the disposal operations authorized by this permit. The disposal summary report shall include the following information:
1. The report shall indicate whether all general and special permit conditions were met. Any violations of the permit shall be explained in detail.
  2. The disposal summary report shall include the following information: USACE permit number, actual start date and completion date of dredging and disposal operations, total cubic yards disposed at the Mobile ODMDS, locations of disposal events, and post

disposal bathymetric survey results (in hard and electronic formats).

### III. PERMIT LIABILITY

A. The permittee and all contractors or other third parties who perform an activity authorized by this permit on behalf of the permittee shall be separately liable for a civil penalty for each violation of any term of this permit committed alone or in concert with the permittee or other parties. Liability shall be individual, rather than joint and several, and shall not be reduced in any fashion to reflect the liability assigned to and civil penalty assessed against the permittee or any other third party as defined in 33 U.S.C. Section 1415(a).

B. If the permittee or any contractor or other third party knowingly violates any term of this permit (either alone or in concert), the permittee, contractor or other party shall be individually liable for the criminal penalties set forth in 33 U.S.C. Section 1415(b).

## **Mobile SMMP Appendix C**

### **Generic Contract Specification Language for Use of the Mobile ODMDS**

## Appendix C: Generic Contract Specification Language for Use of the Mobile ODMDS

MPRSA section 102(c)(3) directs EPA in conjunction with the USACE to develop site management and monitoring plans for dredged material disposal sites and such plans are implemented through MPRSA permits issued by USACE or through Federal projects subject to the same criteria, evaluation factors, procedures and requirements as permits. EPA in conjunction with USACE developed the template language below for inclusion in USACE contracts or other project specifications for the transportation and disposal at the Mobile ODMDS, though the template language is intended to be included on a case-by-case basis. Neither the SMMP nor this Appendix impose the model requirements directly. Instead, the terms of any particular contract or other project specification document for the transportation and disposal of dredged material at the Mobile ODMDS would impose (or not) requirements specific to the project activity. The USACE is not obligated to impose any particular contract term based on the template language; the language is provided to facilitate USACE contract development and to provide notice to third parties. For any future Federal project, EPA's concurrence review would confirm that appropriate terms are included to assure adequate implementation of the SMMP.

### SECTION 35 20 23.23

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM  
HOPPER DREDGE  
X/X/20XX

#### 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 manage data history.

This performance-based specification section identifies the minimum required output and precision and instrumentation requirements. The requirements may be satisfied



using equipment and technical procedures selected by the Contractor.

## 1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "SUBMITTAL PROCEDURES":

SD-01, Preconstruction Submittals

Dredge Plant Instrumentation Plan Revisions or Addendum; G, SAM-OP-J

SD-06, Test Reports

Data Appropriately Archived e-mail, section 3.2.10; G, *XXX-XX-X (enter local district)*

SD-07, Certificates

Letter of National Dredging Quality Management Program Certification; G,  
*XXX-XX-X (enter local district)*

## 1.3 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 in the bidding schedule.

## 1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor is required to have a current certification from the 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 on-site quality assurance (QA) checks conducted by 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 sections 3.3 and 3.5. 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 Team may be necessary.

Annual DQM Certification shall be based on:

- A series of QA checks as described in Section 3.4 "Compliance Quality Assurance Checks"
- Verification of data acquisition and transfer (Section 3.3)
- Review of the Dredge Plant Instrumentation Plan (DPIP) as described in Section 1.5

The dredging 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 dredging 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 dredging 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 the DQM at [DQM-AnnualQA@rpsgroup.com](mailto: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 Team aware of a target date for the annual QA checks for the dredge. At least one week prior to the target date, the dredging contractor shall contact the Data Acquisition team and verbally coordinate a specific date and location. The contractor shall then follow-up this conversation with a written e-mail confirmation. The owner/operator shall coordinate the QA checks with all local authorities, including but not limited to, the local USACE contracting officer.

Re-certification is required for any yard work which produces modification to displacement (i.e. change in dredge lines, 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.

### 1.5 DREDGE PLANT INSTRUMENTATION PLAN (DPIP)

The Contractor shall have a digital copy of the DPIP on file with the National DQM Support Center. The Contractor shall also maintain a copy of the DPIP on the dredge while working on site which is always easily accessible to government personnel. 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 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 start of work.

The DPIP shall include the following as a minimum:

*(DPIP must have 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  
                    • e-mail address  
  
                  Dredge Monitoring System Provider  
                    • Dredge Monitoring System Point of Contact  
                    • Telephone Number  
                    • e-mail address

New page    Table of dredge characteristics  
                    • Dimensions of dredge  
                    • Dimensions of hopper  
                    • Method of disposal  
                    • Capacity  
                    • Minimum and maximum digging depth  
                    • Minimum and maximum drafts and displacements  
                    • RPM and velocity range  
                    • ID of suction and discharge pipes

## New page

## Sensor data collection method

- Any averaging
- Route from sensors to DQM computer
- Internet connection type and provider

## Sensor descriptions, locations and calibration methods

- Positioning system
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions
- Dredge heading instrumentation
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
- Hull status
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions
  - o Calibration procedure
- Draft
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions
  - o Calibration procedure
- Ullage
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions
  - o Calibration procedure
- DragamDrag arm depths
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions
  - o Calibration procedure
- Density
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions including pipe diameter
  - o Calibration procedure
- Velocity
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions including pipe

- diameter
  - o Calibration procedure
- Pump RPM
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions
  - o Calibration procedure
- Pump out (if instrumented)
  - o Brand name, model and accuracy
  - o Any calculation done external to the instrumentation
  - o Sensor location with referenced dimensions

#### Calibration procedure

##### Calculated Parameters

- Displacement:

Method used by Contractor to calculate displacement

Tables listing (fresh and saltwater) displacement as a function of draft in feet and tenths of feet

function of draft in feet and

- Hopper Volume:

Method used by Contractor to calculate hopper volume

Table listing the hopper volume as a function of hopper ullage in feet and tenths of feet

ullage in feet and tenths of

Description of datum for ullage sounding measurements

- Drag Head Position
  - o Method used by Contractor to calculate drag head position
- Load number
  - o Method used to increment load number

##### Quality Control

Description of Contractors 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

A typical plan of the dredge showing:

Overall dredge and hopper dimensions

Locations of required sensors referenced to uniform longitudinal and transverse reference points

Distance between the draft sensors

Distance between the ullage sensors

Dimensions of drag arm

A profile view of the dredge showing:  
Overall dredge and hopper dimensions  
Distance between draft sensors and draft marks  
Locations of 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 National Dredging Quality Management Program Support Center prior to their implementation.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

#### 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 Contracting Office's Representative (COR). The COR may request re-calibration 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 to include: the time of sensor failures (and subsequent repairs), the time and results of sensor calibrations, the time of sensor replacements, and the time that backup sensor systems are 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 subsections.

Reported sensor values for ullage, draft and drag head 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 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.

### 3.1.2 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 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 (section 3.5).

### 3.1.3 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

Geographic coordinates of the vessel as indicated by the location of the GPS antenna.

#### 3.1.3.2 Draghead Horizontal Positioning

Geographic coordinates of the heel on 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 the hopper door is open, or in the case of split hull dredges, the hull is split. A "CLOSED" value indicates the hopper doors are closed, or in the case of split hull dredges, 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  $\pm 0.1$  feet and a resolution of 0.01 feet. Tide values above project datum described in the dredging specification shall be entered with a positive sign, 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  $\pm 0.1$  foot relative to observed physical draft readings. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). Reported forward draft value shall be equal to the sum of the visual forward port and starboard draft mark readings divided by 2. Reported aft draft value shall be equal to the sum of the visual aft port and starboard draft mark readings divided by 2. 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 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values. When 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  $\pm 0.1$  foot with respect to the combing and be representative of the forward and aft extents of the hopper as close to 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 centerline of the hopper they should be offset to opposite sides of the vessel. If more than one fore or one aft sensor is 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 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values. When 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 ullage soundings.

#### 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  kg/cubic meter and shall be used for an additional interpolation between the fresh and salt water tables. *The water density used is project/location specific. 1000 kg/m<sup>3</sup> (1g/cm<sup>3</sup>)- fresh water 1027 kg/m<sup>3</sup> - 1030 kg/m<sup>3</sup> (1.027g/cm<sup>3</sup> - 1.03g/cm<sup>3</sup>)- salt water*

### 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  $\pm 0.5$  feet and a resolution to the nearest 0.1 feet 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 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values.

#### 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  $\pm 0.001$ g/cc. If the manufacture does not specify a frequency of re-calibration, 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  $\pm 0.001$  fps. If the manufacture does not specify a frequency of re-calibration, 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 tenders' 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 section 3.1.19 are determined based on 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 only accommodate up to 4 unique sea suction locations. Suggested options for the naming convention can be found in the Example dataset in section 3.2.9, "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".

## NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS

Contractors DQM system shall be capable of collecting, displaying, and transmitting information to the DQM Database. The applicable parameters from section 3.1 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 on-board computer for use by the Dredging Quality Management system. This computer shall run the USACE's 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

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; one spare cable

Contractor shall install a fully licensed copy of Windows 7 Professional Operating System on the computer specified above. 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 connection of external hardware. Location and orientation shall be subject to Contracting Officer's Representative's approval.

### 3.2.2 Software

The DQM computer's primary function is to transmit data to the DQM shore side database. No other software which conflicts with this function shall be installed on this computer. The DQM computer will have the USACE provided DQMOBS (Dredge Quality Management Onboard Software) 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 Contracting Officer's representative'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 1kVA for a minimum of 10 minutes. The UPS shall interface to 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 band width to clear historically queued data when a connection is re-obtained. The telemetry system shall be always available and have connectivity in 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 USACE DQM center remote access to this computer. Coordination between the dredging company's IT and DQM 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.

#### 3.2.6 Data Routing Requirements

Onboard sensors shall continually monitor dredge conditions, operations and efficiency and route this information into the shipboard dredge-specific system computer (DSS) 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 data set containing dredge information as per section 3.1. Each set of measurements (i.e. time, position, etc...) will be considered an event. All required information in section 3.1 that

are not an averaged variable (i.e. draft and ullage) shall be collected within one 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 only added 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>
    <CONTRACT_NUMBER> string32</CONTRACT_NUMBER>
    <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>
</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>
    <CONTRACT_NUMBER>GDSNWP-11-G-
0001</CONTRACT_NUMBER>
    <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>
    </HOPPER_DATA_RECORD>
</HOPPER_DREDGING_DATA>
<cr>
</f>
<DREDGE_NAME>Essayons</DREDGE_NAME>
  <HOPPER_DATA_RECORD>
    <DATE_TIME>04/11/2002 13:12:10</DATE_TIME>
    <CONTRACT_NUMBER>GDSNWP-11-G-
0001</CONTRACT_NUMBER>
    <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>
  </HOPPER_DATA_RECORD>
</HOPPER_DREDGING_DATA>
<cr>
</if>

```

### 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 (section 3.2.6) 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 center within 48 hours. This

submission does not replace the requirement of correcting the issue affecting 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 events. Each event shall include time stamp (GMT), position (Latitude and Longitude WGS84), draft, ullage, volume and displacement. Disposal logs shall be submitted daily to the Contracting Officer's Representative 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. 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 National DQM Support Center prior to discarding the data to ensure it has been appropriately archived. The Contractor shall record in a separate section at the end of the dredge's on-board copy of the DPIP the following information:

- a. Person who made the call
- b. The date of the call
- c. The 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 e-mail" to the local districts Contracting Officer's Representative with the above information, and Cc: the DQM Support Center representative providing permission. In addition to the above information, also include in the e-mail:

- d. Project name and contract number
- e. Dredge start and end dates
- f. Name of 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 Section 1.4, 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 values for all parameters while operating, as described within the specifications. Additionally, all hardware shall be compliant with hardware requirements (Section 3.2). Quality data strings are considered to be those providing 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 Sections 3.2.7 "Data Measurement Frequency" and 3.2.9 "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 USACE 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 \$ \_\_\_\_\_ per day. *(A spread sheet of how to calculate this liquidated damage amount is available at the DQM support center; this is NOT just the DQM day rate)*

### 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 assure compliance with performance requirements outlined in section 3.3. In addition to making sure the data received meets the reporting requirements outlined in the sub sections under section 3.1, a more detailed description of some of the quality assurance methods are outlined below.

For annual instrumentation checks and compliance monitoring, the DQM Data Acquisition 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 dredging contractor. The dredging 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 be performed before DQM personnel arrive on site.

### 3.4.1 Draft & 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  $\pm 0.1$  ft. 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 re-calibrate 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 enough 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 re-calibrate 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 & 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 feet). 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 re-calibrate 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.

### Water Load Test

Water 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 test is to validate the dredge's reported displacement and hopper volumes. If the results of the water test indicate that the system is not operating within acceptable accuracy, the Contractor shall correct the deficiencies causing the error, and repeat the water 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 with a resolution of 0.001 and minimum accuracy of  $\pm 0.001$ . 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 specific gravity with the refractometer, and a sufficient volume of deionized water for calibration of the device.

### 3.5 CONTRACTOR QUALITY CONTROL

Dredging 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 section 1.5 Table of Contents, item 27. 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 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

Plan	DPIP	Sec 1.5 Dredge Plant Instrumentation
	DQM SYSTEM	
Data	Sensor Instrumentation	Sec. 3.1 Specifications for Reported
Management System Requirements	DQM Computer	Sec. 3.2 National Dredging Quality
	DREDGE DATA	
	Event documentation	Sec. 3.2.9 Data Reporting
Backups	Dredge Data Backups	Sec 3.2.10 Contractor Data
	QA EQUIPMENT ON DREDGE	
Check	Ullage tape	Sec. 3.4.3 Ullage Sounding & Volume
Check	Dragam depth chain	Sec. 3.4.2 Draghead Depth
	Refractometer –measuring in grams/cubic centimeter with a resolution of 0.001 and a minimum accuracy of $\pm 0.001$ with calibration water	Sec. 3.4.5 Water Load Test
	Water sampling device	Sec. 3.4.5 Water Load Test

APPENDIX C  
DREDGING QUANTITIES

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**APPENDIX C, CUT TEMPLATE AVERAGE END AREA VOLUME REPORT  
MOBILE HARBOR ALABAMA DEEPENING AND WIDENING, PHASE**

**Phase 1 Dredge Volumes**

Baseline Station	Phase 1 Dredge Template			Phase 1 O&M Template			Phase 1 New Work Template		
	Cut Area (S.F.)	Cut Volume (C.Y.)	Cumulative Volume (C.Y.)	Cut Area (S.F.)	Cut Volume (C.Y.)	Cumulative Volume (C.Y.)	Cut Area (S.F.)	Cut Volume (C.Y.)	Cumulative Volume (C.Y.)
2075+00.00	10968	0	0	1280	0	0	9687	0	0
2080+00.00	11491	207949	207949	2295	33100	33100	9196	174849	174849
2085+00.00	12503	222170	430119	3401	52737	85837	9102	169434	344283
2089+53.30	12236	207675	637794	3046	54116	139953	9190	153559	497841
2090+00.00	12131	21073	658867	2989	5222	145175	9142	15851	513693
2095+00.00	10876	213025	871892	2253	48541	193716	8623	164484	678177
2100+00.00	9266	186498	1058390	704	27386	221101	8562	159112	837289
2105+00.00	7919	159115	1217505	325	9532	230633	7594	149583	986872
2110+00.00	6655	134939	1352444	228	5124	235758	6427	129815	1116686
2115+00.00	5640	113842	1466286	189	3864	239622	5451	109978	1226664
2119+33.78	5592	90226	1556512	149	3129	242751	5443	87097	1313761
2120+00.00	5681	13824	1570336	197	3208	245959	5484	10616	1324377
2125+00.00	6113	109205	1679541	236	4009	249968	5878	105196	1429573
2130+00.00	5960	111784	1791325	133	3409	253377	5827	108375	1537948
2135+00.00	4843	100022	1891346	65	1833	255210	4778	98189	1636137
2140+00.00	4231	84021	1975367	60	1164	256374	4171	82857	1718993
2145+00.00	3730	73718	2049085	116	1633	258007	3614	72085	1791078
2150+00.00	3382	65856	2114941	139	2359	260366	3244	63497	1854575
2155+00.00	3239	61308	2176249	113	2332	262698	3126	58977	1913552
2160+00.00	3257	60145	2236394	114	2105	264803	3142	58040	1971591
2165+00.00	3187	59665	2296059	80	1802	266605	3107	57863	2029454
2170+00.00	3096	58173	2354232	38	1095	267699	3058	57078	2086533
2175+00.00	2887	55397	2409629	11	455	268154	2876	54942	2141475
2180+00.00	2045	45668	2455297	0	103	268257	2045	45565	2187040
2185+00.00	1461	32456	2487753	0	0	268257	1461	32456	2219496
2189+58.73	1002	20917	2508669	0	0	268257	1002	20917	2240412

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APPENDIX D  
FIELDWOOD ENERGY  
PIPELINE INFORMATION

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The following drawings are "For Information Only" and represent the best information the government has on the Fieldwood Energy, 8 inch and 2 inch gas lines, located near station 2087+00.



Devon Energy Production Company, LP  
1200 Smith Street  
Houston, Texas 77002  
(713) 286-5700 / Fax: (713) 286-5919

May 5, 2009

Segment No. 17473

NOAA-National Ocean Service-OCS  
Chief, Nautical Data Branch  
N/CS 26  
1315 East West Highway  
Silver Spring, Maryland 20910-3282

Reference: 8-inch Bulk Gas (H2S) Lease Term Pipeline  
Pipeline Segment numbers 17473  
Lease OCS-G-26176, Mobile Area, Block 826  
OCS Federal Waters, Gulf of Mexico, Offshore Alabama

Gentlemen:

In accordance with the terms and provisions outlined in the MMS LTL dated April 18, 1991, and as conditions of the approved pipeline permit, Devon Energy Production Company, L.P. is submitting a copy of the "As-Built" drawings for the above referenced pipeline.

The installation and hydrostatic testing was completed on December 8, 2008.

Devon Energy request that the above referenced pipeline be included on your navigation charts and identify it as an H2S sour gas pipeline. The pipeline was installed below the Mobile Bay Entrance Channel: 90 feet below MLLW and 35 feet below the channel floor via Horizontal Directional Drill (HDD).

Should you have any questions, please contact the undersigned at (713) 286-5943.

Sincerely,

A handwritten signature in black ink, appearing to read "Niles McWilliams".

Niles McWilliams  
Regulatory Compliance Coordinator  
Gulf Division

Xc: Alex Alvarado - MMS Pipeline Section  
Segment 17473 File  
Mobile 826 "D" Platform



# United States Department of the Interior



## MINERALS MANAGEMENT SERVICE

Gulf of Mexico OCS Region  
1201 Elmwood Park Boulevard  
New Orleans, Louisiana 70123-2394

In Reply Refer To: MS 5232

April 23, 2009

Mr. Raymond A. Maggiore  
Devon Energy Production Company, L.P.  
1200 Smith Street  
Houston, Texas 77002

Dear Mr. Maggiore:

On September 4, 2008, MMS granted approval to install, operate, and maintain the following lease term pipeline segments:

Segment Number(s)	Size (inches)	Length (feet)	Service	From	To
17473	08	2,677	Bulk Gas (H <sub>2</sub> S)	No. 1 Caisson Mobile Block 826 OCS-G26176	F/S Mobile Block 826 OCS-G26176
17474	02	2,677	Supply Gas	F/S Mobile Block 826 OCS-G26176	No. 1 Caisson Mobile Block 826 OCS-G26176

Subsequent to this approval on December 5, 2009, MMS rescinded the approval to operate Segment Number 17473 and issued an order prohibiting the segment from being placed in-service based on an outstanding air quality (H<sub>2</sub>S) review.

Additional air quality data was submitted to MMS on February 16, 2009 for review as requested. Based on our review of this subsequent air quality data, pursuant to 30 CFR 250.1000(b), approval is hereby granted to operate Segment Number 17473 and place the pipeline in-service. Approval is subject to the following, in addition to the conditions of the September 4, 2008 approval:

1) Immediately after you begin operation of the pipeline (Segment Number 17473), you must notify the Commander, Eighth Coast Guard District, Hale Boggs Federal Building, New Orleans, Louisiana 70130-3396 that the pipeline (Segment Number 17473) is in operation and request that they publish information about the pipeline (Segment Number 17473), including the fact that it is transporting natural gas with a high concentration of hydrogen sulfide, in the Eighth District Local Notice to Mariners, Gulf of Mexico.

2) When you provide the National Ocean Service, Nautical Data Section, Room 13632, 1305 East-West Highway, Silver Spring, Maryland 20910 with a copy of your pipeline construction report plat, you must also request that they include the pipeline on their navigation charts and identify it as an H<sub>2</sub>S sour gas pipeline.

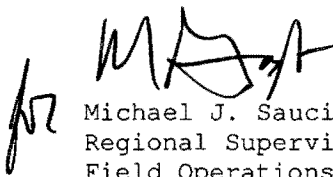
**TAKE PRIDE  
IN AMERICA** 

3) Inspect the pipeline bi-annually for indication of corrosion or other flaws. Report the results of these inspections to this office within 30 days of completion.

4) Prior to initiating operations approved in your pipeline, you shall update your emergency notification list in your H2S contingency plan to include the Federal Aviation Administration [FAA: Houston Air Traffic Control/Traffic Management Control Desk, telephone (281) 230-5560]. In the event of an above-water or below-water sour gas release greater than 100 SCF, notify the FAA that air traffic (except evacuation and medical aircraft) should be routed safely away from the site until further notice. For purposes of avoidance recommendations to the FAA, a distance of 10 nautical miles and an altitude of 4000-ft, as minimal, shall be used.

In the case of a release of H2S (that constitutes an emergency), notify all facilities that might be exposed to atmospheric concentrations of 20 ppm or more of H2S (i.e. all facilities located within 1 nautical miles of the H2S release.) You must also assist in the removal of all personnel as well as any other persons observed within the affected area.

Sincerely,

  
Michael J. Saucier  
Regional Supervisor  
Field Operations





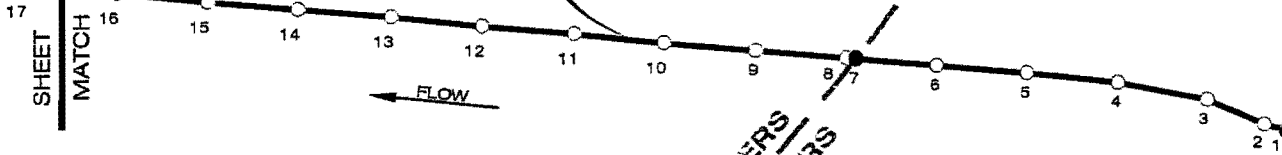
BLOCK	LENGTH IN FEET	LENGTH IN RODS
AL133	6,048'	366

AL114

**AS-BUILT 8" BULK GAS PIPELINE**  
 SEGMENT NO. 17473  
 LENGTH IN FEDERAL WATERS = 2,312 FL.  
 LENGTH IN STATE WATERS = 24,148 FL.  
 LENGTH IN STATE WATERS = 1,463 RODS  
 TOTAL LENGTH = 26,460 FL.  
 5.0 STATUTE MILES

TIE	COORDINATES	
	X	Y
Riser @ MO826 #1	1,324,117'	10,947,919'
1	1,324,109'	10,947,930'
2	1,323,995'	10,947,960'
3	1,323,697'	10,948,090'
4	1,323,233'	10,948,180'
5	1,322,757'	10,948,230'
6	1,322,281'	10,948,270'
(7) F/S Boundary	1,321,855'	10,948,308'
8	1,321,806'	10,948,310'
9	1,321,332'	10,948,350'
10	1,320,856'	10,948,390'
11	1,320,383'	10,948,440'
12	1,319,904'	10,948,480'
13	1,319,431'	10,948,530'
14	1,318,953'	10,948,570'
15	1,318,479'	10,948,610'
16	1,318,002'	10,948,660'
TOTAL LENGTH: 26,460', 5.0 Miles		

2 OF 4  
 SHEET MATCH LINE



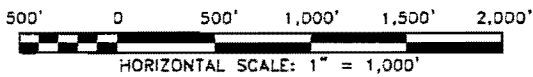
AL133

STATE WATERS  
 FEDERAL WATERS

MO826

Devon Energy Production Company, L.P.  
 OCS-G-26176

Riser @ MO826 Caisson #1			
X=	1,324,117'		
Y=	10,947,919'		
Lat.	30° 09' 41.68" N		
Lon.	88° 00' 04.22" W		
NAD 83			
Lat.	30° 09' 42.42" N		
Lon.	88° 00' 04.21" W		



MO870

Placid Oil Company  
 EOG Resources, Inc.  
 OCS-G-05068

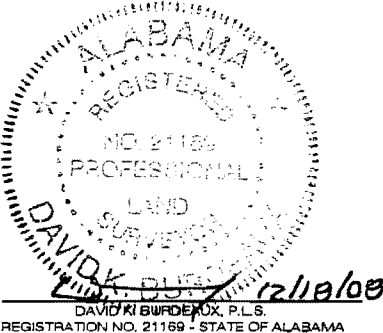
I certify this plat represents a survey performed under my supervision in accordance with generally accepted offshore surveying practices

**Notes:**

- Coordinates are referenced to the UTM Coordinate System of 1927, Zone 16 North. Units are in U.S. Survey Feet.
- This plat represents a survey of the horizontal position of pipeline as identified during construction.
- Depth of cover as reported by divers is 3 to 10 feet.

**Legend**

- - Denotes position of anodes on pipeline.
- - Denotes other positions on pipeline.



**AS-BUILT 8" BULK GAS PIPELINE**

FROM MOBILE OCS AREA BLOCK 826 CAISSON #1  
 TO ALABAMA AREA BLOCK 113 'A' STRUCTURE  
 MOBILE & BALDWIN COUNTIES, ALABAMA



PREPARED FOR:	
CHET MORRISON CONTRACTORS, INC. HOUMA, LA	
DRAWING NO.:	8570-Asbuilt_8in_Seg17473-1
DRAFTED BY.:	REV NO.: 0
CHK. BY.:	DATE: DEC 1, 2008
APP. BY.:	SHEET: 1 OF 4

Exxon Mobil Corporation BUNDLE GASWATER Seg # 150021



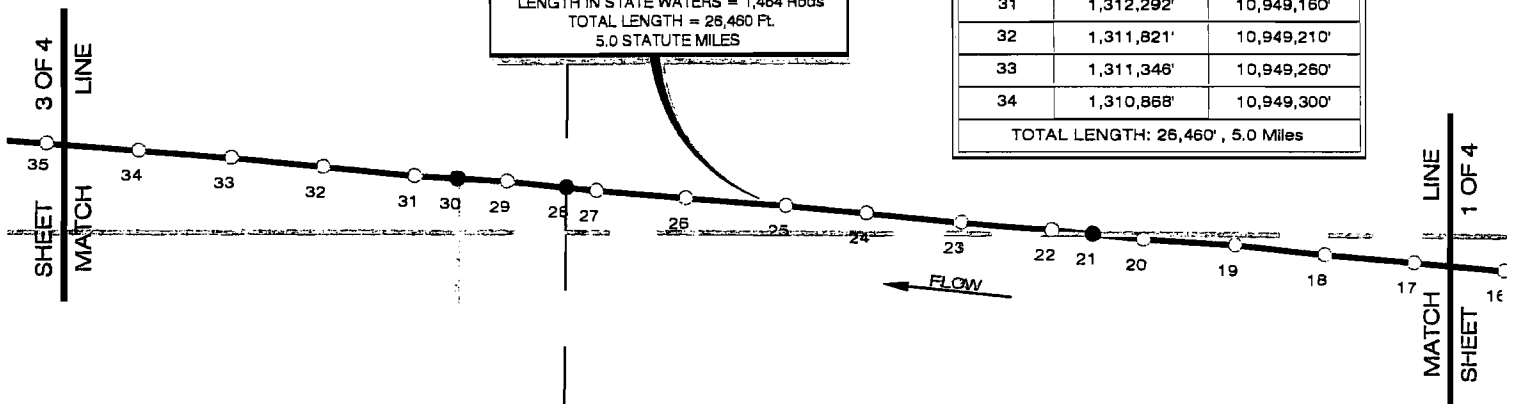
BLOCK	LENGTH IN FEET	LENGTH IN RODS
AL133	6,046'	366
AL114	3,338'	202
AL113	14,764'	895

TIE	COORDINATES	
	X	Y
17	1,317,527'	10,948,700'
18	1,317,053'	10,948,740'
19	1,316,577'	10,948,790'
20	1,316,100'	10,948,820'
(21) Block Line	1,315,834'	10,948,848'
22	1,315,626'	10,948,870'
23	1,315,147'	10,948,910'
24	1,314,657'	10,948,960'
25	1,314,236'	10,949,000'
26	1,313,719'	10,949,040'
27	1,313,243'	10,949,080'
(28) County Line	1,313,082'	10,949,097'
29	1,312,769'	10,949,130'
(30) Block Line	1,312,510'	10,949,146'
31	1,312,292'	10,949,160'
32	1,311,821'	10,949,210'
33	1,311,346'	10,949,260'
34	1,310,868'	10,949,300'
TOTAL LENGTH: 26,460' , 5.0 Miles		

AL113

AL114

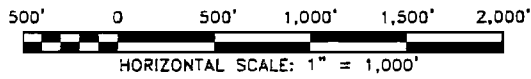
**AS-BUILT 8" BULK GAS PIPELINE**  
 SEGMENT NO. 17473  
 LENGTH IN FEDERAL WATERS = 2,312 FL  
 LENGTH IN STATE WATERS = 24,148 FL  
 LENGTH IN STATE WATERS = 1,464 Rods  
 TOTAL LENGTH = 26,460 FL  
 5.0 STATUTE MILES



AL132

MOBILE COUNTY  
BALDWIN COUNTY

AL133



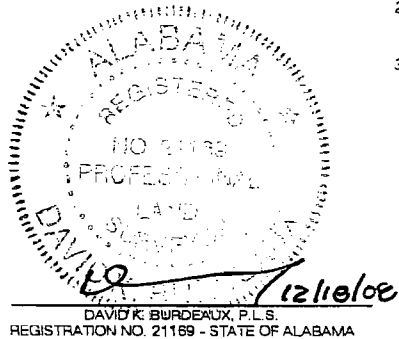
I certify this plat represents a survey performed under my supervision in accordance with generally accepted offshore surveying practices

**Notes:**

- Coordinates are referenced to the UTM Coordinate System of 1927, Zone 16 North. Units are in U.S. Survey Feet.
- This plat represents a survey of the horizontal position of pipeline as identified during construction.
- Depth of cover as reported by divers is 3 to 10 feet.

**Legend**

- - Denotes position of anodes on pipeline.
- - Denotes other positions on pipeline.



**AS-BUILT 8" BULK GAS PIPELINE**

FROM MOBILE OCS AREA BLOCK 826 CAISSON #1  
 TO ALABAMA AREA BLOCK 113 "A" STRUCTURE  
 MOBILE & BALDWIN COUNTIES, ALABAMA



PREPARED FOR: CHET MORRISON CONTRACTORS, INC. HOUMA, LA	
DRAWING NO.: 8570-Asbuilt_8in_Seg17473-2	REV NO.: 0
DRAFTED BY: J.M.M.	DATE: DEC 1, 2008
CHK. BY: RM	APP. BY: DKB
SHEET: 2 OF 4	



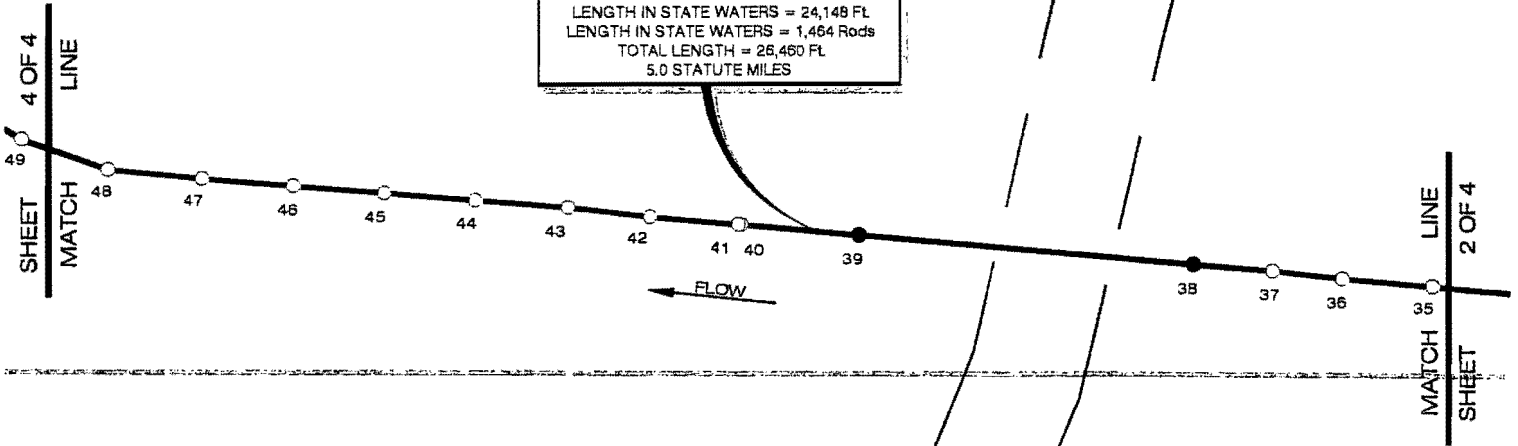
BLOCK	LENGTH IN FEET	LENGTH IN RODS
AL113	14,764'	895

AL113

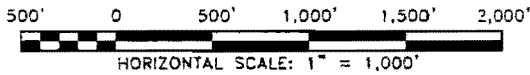
TIE	COORDINATES	
	X	Y
35	1,310,392'	10,949,340'
36	1,309,916'	10,949,380'
37	1,309,551'	10,949,420'
(38) Bore Entry	1,309,142'	10,949,454'
(39) Bore Ext	1,307,394'	10,949,612'
40	1,306,782'	10,949,670'
41	1,306,767'	10,949,670'
42	1,306,304'	10,949,710'
43	1,305,877'	10,949,760'
44	1,305,397'	10,949,800'
45	1,304,924'	10,949,840'
46	1,304,449'	10,949,880'
47	1,303,971'	10,949,920'
48	1,303,486'	10,949,970'
TOTAL LENGTH: 26,460', 5.0 Miles		

Exxon Mobil Corporation BUNDLE\* GAS/WATER Seg # 150021

**AS-BUILT 8" BULK GAS PIPELINE**  
 SEGMENT NO. 17473  
 LENGTH IN FEDERAL WATERS = 2,312 FL  
 LENGTH IN STATE WATERS = 24,148 FL  
 LENGTH IN STATE WATERS = 1,464 Rods  
 TOTAL LENGTH = 26,460 FL  
 5.0 STATUTE MILES



AL 32



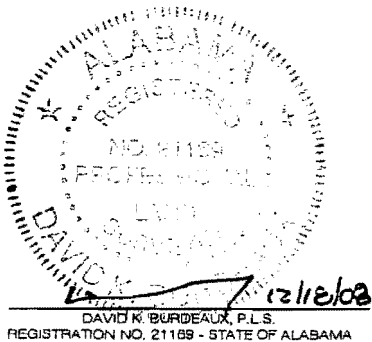
I certify this plat represents a survey performed under my supervision in accordance with generally accepted offshore surveying practices

**Notes:**

- Coordinates are referenced to the UTM Coordinate System of 1927, Zone 16 North. Units are in U.S. Survey Feet.
- This plat represents a survey of the horizontal position of pipeline as identified during construction.
- Depth of cover as reported by divers is 3 to 10 feet.

**Legend**

- - Denotes position of anodes on pipeline.
- - Denotes other positions on pipeline.



**AS-BUILT 8" BULK GAS PIPELINE**

FROM MOBILE OCS AREA BLOCK 826 CAISSON #1 TO ALABAMA AREA BLOCK 113 "A" STRUCTURE MOBILE & BALDWIN COUNTIES, ALABAMA



PREPARED FOR:	
CHET MORRISON CONTRACTORS, INC. HOUMA, LA	
DRAWING NO.:	8570-Asbuilt_Bin_Seg17473-3
DRAFTED BY.:	E.D.S. REV NO.: 0
CHK. BY.:	RM DATE: DEC 1, 2008
APP. BY.:	DKB SHEET: 3 OF 4

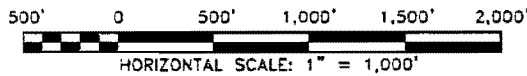
BLOCK	LENGTH IN FEET	LENGTH IN RODS
AL113	14,764'	895

Riser @ AL113 'A' Structure	
X=	1,300,142'
Y=	10,954,418'
Lat.	30° 10' 43.85" N
Lon.	88° 04' 38.07" W
NAD 83	
Lat.	30° 10' 44.58" N
Lon.	88° 04' 38.07" W

**AS-BUILT 8" BULK GAS PIPELINE**  
 SEGMENT NO. 17473  
 LENGTH IN FEDERAL WATERS = 2,312 FT  
 LENGTH IN STATE WATERS = 24,148 FT  
 LENGTH IN STATE WATERS = 1,464 Rods  
 TOTAL LENGTH = 26,460 FT  
 5.0 STATUTE MILES

TIE	COORDINATES	
	X	Y
49	1,303,047'	10,950,130'
50	1,302,626'	10,950,390'
51	1,302,324'	10,950,720'
(52) P/L Crossing	1,302,117'	10,951,070'
53	1,302,067'	10,951,160'
54	1,301,826'	10,951,570'
55	1,301,363'	10,952,360'
56	1,301,114'	10,952,770'
57	1,300,881'	10,953,170'
58	1,300,633'	10,953,590'
59	1,300,397'	10,954,010'
(60) P/L Crossing	1,300,247'	10,954,231'
61	1,300,241'	10,954,240'
Riser @ AL113 'A'	1,300,142'	10,954,418'

TOTAL LENGTH: 26,460', 5.0 Miles



Energy Resource Technology, Inc. 10" GASH Seg # 11177

Shell Gas Pipeline Company 16" BUNDLE Seg # 150016  
 EXXONMOBIL 16" BUNDLE Seg # 150017  
 Cable Seg # 150073  
 Cable Seg # 150074

Seg # 150082  
 Seg # 150085

Seg # 150079  
 Seg # 150080

Exxon Mobil Corporation BUNDLE GAS/WATER Seg # 15002T

Chevron U.S.A. Inc. 12" GASH Seg # 12417  
 Cable Seg # 150072

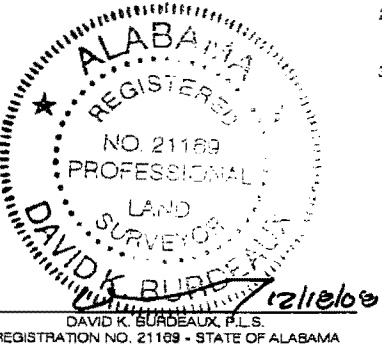


MATCH LINE SHEET 3 OF 4

I certify this plat represents a survey performed under my supervision in accordance with generally accepted offshore surveying practices

- Notes:**
- Coordinates are referenced to the UTM Coordinate System of 1927, Zone 16 North. Units are in U.S. Survey Feet.
  - This plat represents a survey of the horizontal position of pipeline as identified during construction.
  - Depth of cover as reported by divers is 3 to 10 feet.

- Legend**
- - Denotes position of anodes on pipeline.
  - - Denotes other positions on pipeline.
  - ▲ - Denotes unverified pipeline crossing.



**AS-BUILT 8" BULK GAS PIPELINE**  
 FROM MOBILE OCS AREA BLOCK 826 CAISSON #1 TO ALABAMA AREA BLOCK 113 "A" STRUCTURE  
 MOBILE & BALDWIN COUNTIES, ALABAMA

**cochrane TECHNOLOGIES, INC.**  
 337-437-3334 LAFAYETTE, LA.

PREPARED FOR:	CHET MORRISON CONTRACTORS, INC. HOUMA, LA		
DRAWING NO.:	857D-Asbuilt_8in_Seg17473-4		
DRAFTED BY.:	E.S.S.	REV NO.:	0
CHK. BY.:	DM	DATE:	DEC 1, 2008
APP. BY.:	DKB	SHEET:	4 OF 4

BLOCK	LENGTH IN FEET	LENGTH IN RODS
AL113	14,769'	895

Energy Resource Technology, Inc. 10" GASH Seg # 11177

Riser @ AL113 "A" Structure	
X=	1,300,142'
Y=	10,954,416'
Lat.	30° 10' 43.85" N
Lon.	88° 04' 36.07" W
NAD 83	
Lat.	30° 10' 44.58" N
Lon.	88° 04' 36.07" W

AL110

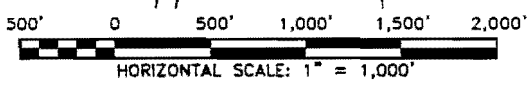


**AS-BUILT 2" SUPPLY GAS PIPELINE**  
 SEGMENT NO. 17474  
 LENGTH IN FEDERAL WATERS = 2,310 Ft.  
 LENGTH IN STATE WATERS = 24,152 Ft.  
 LENGTH IN STATE WATERS = 1,463 Rods  
 TOTAL LENGTH = 26,462 Ft.  
 5.0 STATUTE MILES

Exxon Mobil Corporation  
 BUNDLE GAS/WATER Seg # 150021

AL112

TIE	COORDINATES	
	X	Y
Riser @ AL113 "A"	1,300,142'	10,954,416'
(1) P/L Crossing	1,300,255'	10,954,240'
2	1,300,396'	10,954,010'
3	1,300,633'	10,953,590'
4	1,300,873'	10,953,170'
5	1,301,114'	10,952,770'
6	1,301,362'	10,952,360'
7	1,301,581'	10,951,980'
8	1,301,826'	10,951,560'
9	1,302,068'	10,951,160'
(10) P/L Crossing	1,302,117'	10,951,070'
11	1,302,322'	10,950,710'
12	1,302,626'	10,950,390'
13	1,303,050'	10,950,120'
TOTAL LENGTH: 26,462', 5.0 Miles		



MATCH SHEET  
LINE 2 OF 4

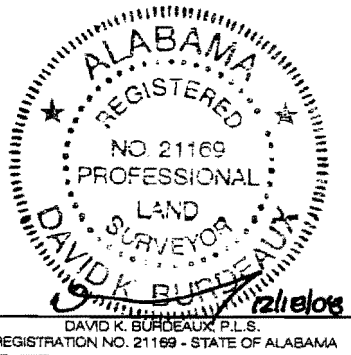
I certify this plat represents a survey performed under my supervision in accordance with generally accepted offshore surveying practices.

**Notes:**

- Coordinates are referenced to the UTM Coordinate System of 1927, Zone 16 North. Units are in U.S. Survey Feet.
- This plat represents a survey of the horizontal position of pipeline as identified during construction.
- Depth of cover as reported by divers is 3 to 10 feet.

**Legend**

- - Denotes position of anodes on pipeline.
- - Denotes other positions on pipeline.
- ▲ - Denotes unverified pipeline crossing.



**AS-BUILT 2" SUPPLY GAS PIPELINE**  
 FROM ALABAMA AREA BLOCK 113 "A" STRUCTURE  
 TO MOBILE OCS AREA BLOCK 826 CAISSON #1  
 MOBILE & BALDWIN COUNTIES, ALABAMA



PREPARED FOR:	
CHET MORRISON CONTRACTORS, INC HOUMA, LA	
DRAWING NO.:	6570-Asbuilt_2n_Seg17474-1
DRAFTED BY:	V.S.S.
CHK. BY:	Fm
APP. BY:	DKB
REV NO.:	0
DATE:	DEC 1, 2008
SHEET:	1 OF 4



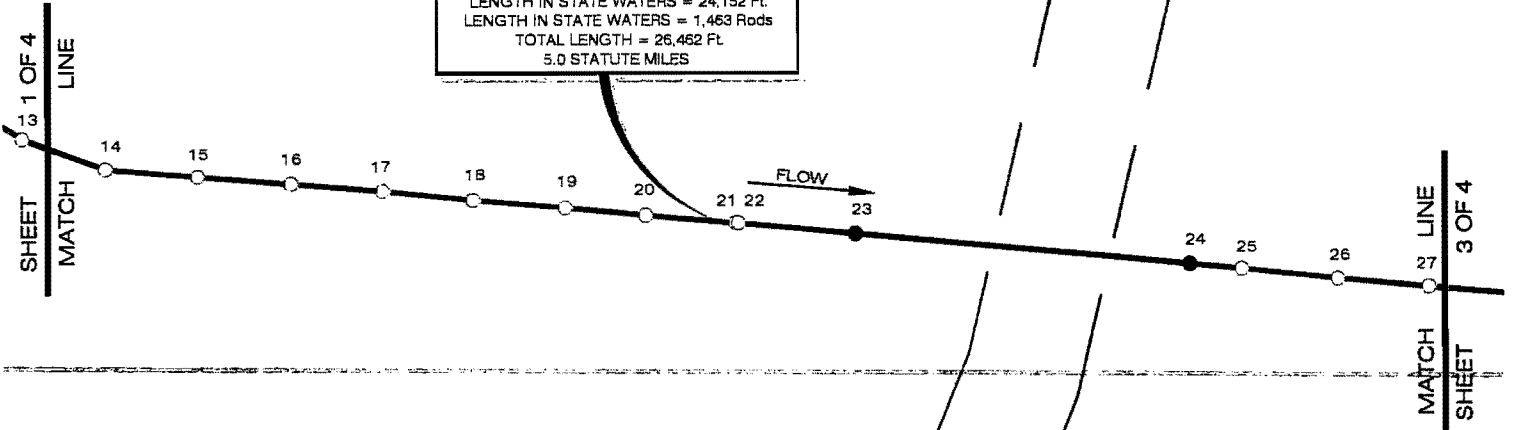
BLOCK	LENGTH IN FEET	LENGTH IN RODS
AL113	14,769'	895

AL113

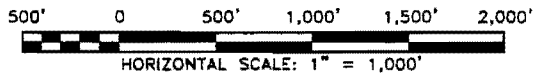
TIE	COORDINATES	
	X	Y
14	1,303,488'	10,949,960'
15	1,303,973'	10,949,920'
16	1,304,453'	10,949,880'
17	1,304,929'	10,949,840'
18	1,305,401'	10,949,790'
19	1,305,880'	10,949,750'
20	1,306,303'	10,949,710'
21	1,306,767'	10,949,670'
22	1,306,782'	10,949,670'
(23) Bore Exit	1,307,394'	10,949,612'
(24) Bore Entry	1,309,142'	10,949,454'
25	1,309,414'	10,949,430'
26	1,309,916'	10,949,380'
27	1,310,392'	10,949,340'
TOTAL LENGTH: 26,462' , 5.0 Miles		

Exxon Mobil Corporation BUNDLE GASWATER Seg # 150021

**AS-BUILT 2" SUPPLY GAS PIPELINE**  
 SEGMENT NO. 17474  
 LENGTH IN FEDERAL WATERS = 2,310 Ft.  
 LENGTH IN STATE WATERS = 24,152 Ft.  
 LENGTH IN STATE WATERS = 1,463 Rods  
 TOTAL LENGTH = 26,462 Ft.  
 5.0 STATUTE MILES



AL132



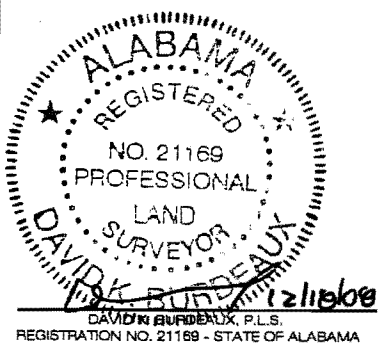
I certify this plat represents a survey performed under my supervision in accordance with generally accepted offshore surveying practices.

**Notes:**

- Coordinates are referenced to the UTM Coordinate System of 1927, Zone 16 North. Units are in U.S. Survey Feet.
- This plat represents a survey of the horizontal position of pipeline as identified during construction.
- Depth of cover as reported by divers is 3 to 10 feet.

**Legend**

- - Denotes position of anodes on pipeline.
- - Denotes other positions on pipeline.



REGISTRATION NO. 21169 - STATE OF ALABAMA



**AS-BUILT 2" SUPPLY GAS PIPELINE**  
 FROM ALABAMA AREA BLOCK 113 "A" STRUCTURE  
 TO MOBILE OCS AREA BLOCK 826 CAISSON #1  
 MOBILE & BALDWIN COUNTIES, ALABAMA

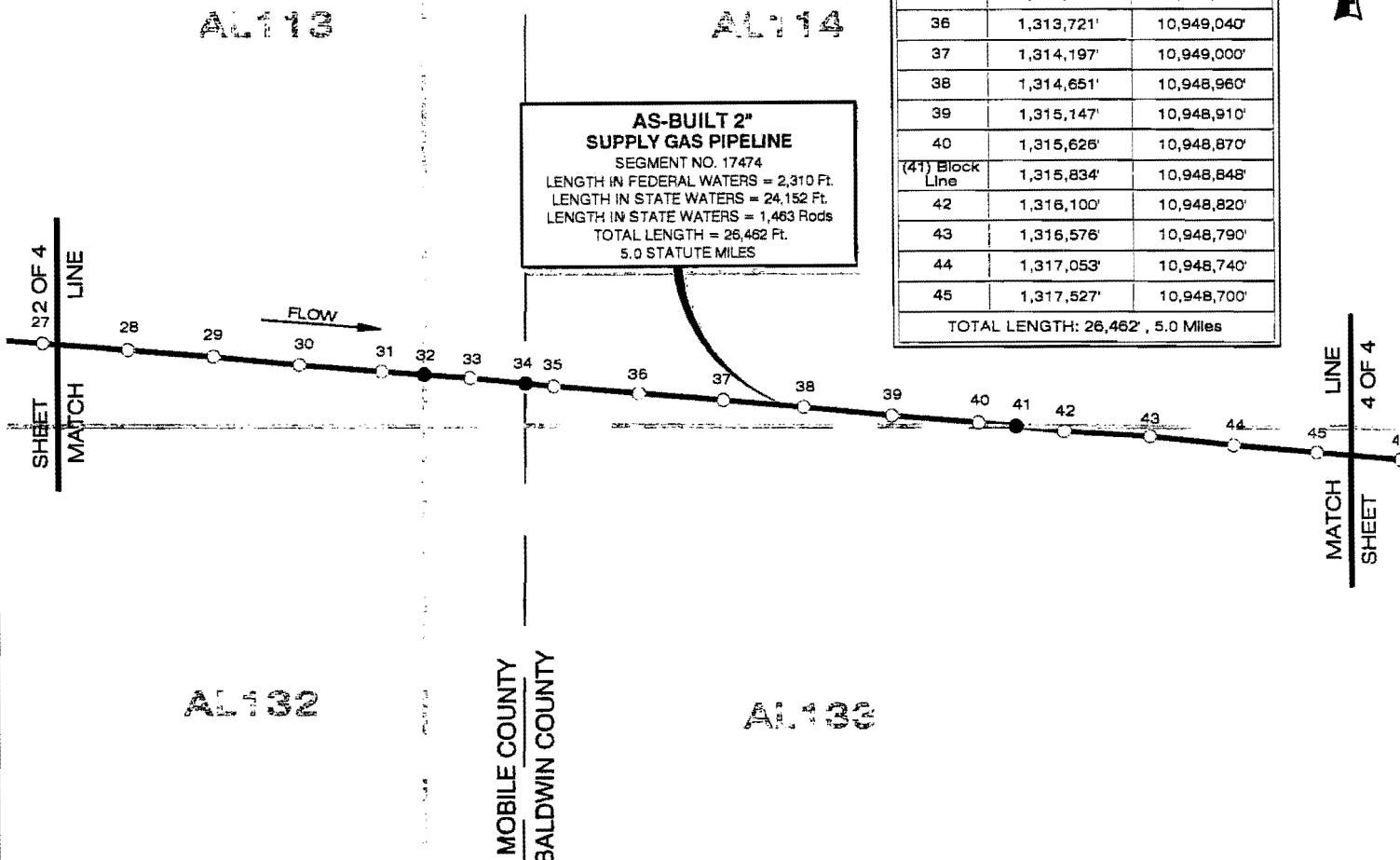


PREPARED FOR:	
CHET MORRISON CONTRACTORS, INC HOUMA, LA	
DRAWING NO.:	8570-Asbuilt_2in_Seg17474-2
DRAFTED BY:	REV NO.: 0
CHK BY:	DATE: DEC 1, 2008
APP BY: DKB	SHEET: 2 OF 4

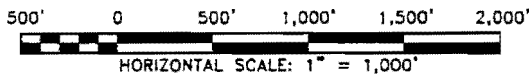
Exxon Mobil Corporation BUNDLE GASWATER Seg # 150021

BLOCK	LENGTH IN FEET	LENGTH IN RODS
AL113	14,769'	895
AL114	3,338'	202
AL133	6,045'	366

TIE	COORDINATES	
	X	Y
28	1,310,867'	10,949,300'
29	1,311,346'	10,949,260'
30	1,311,819'	10,949,210'
31	1,312,272'	10,949,170'
(32) Block Line	1,312,510'	10,949,151'
33	1,312,769'	10,949,130'
(34) County Line	1,313,082'	10,949,097'
35	1,313,243'	10,949,080'
36	1,313,721'	10,949,040'
37	1,314,197'	10,949,000'
38	1,314,651'	10,948,960'
39	1,315,147'	10,948,910'
40	1,315,626'	10,948,870'
(41) Block Line	1,315,834'	10,948,848'
42	1,316,100'	10,948,820'
43	1,316,576'	10,948,790'
44	1,317,053'	10,948,740'
45	1,317,527'	10,948,700'
TOTAL LENGTH: 28,462', 5.0 Miles		



**AS-BUILT 2" SUPPLY GAS PIPELINE**  
 SEGMENT NO. 17474  
 LENGTH IN FEDERAL WATERS = 2,310 Ft.  
 LENGTH IN STATE WATERS = 24,152 Ft.  
 LENGTH IN STATE WATERS = 1,463 Rods  
 TOTAL LENGTH = 28,462 Ft.  
 5.0 STATUTE MILES



I certify this plat represents a survey performed under my supervision in accordance with generally accepted offshore surveying practices

**Notes:**

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- This plat represents a survey of the horizontal position of pipeline as identified during construction.
- Depth of cover as reported by divers is 3 to 10 feet.

**Legend**

- - Denotes position of anodes on pipeline.
- - Denotes other positions on pipeline.

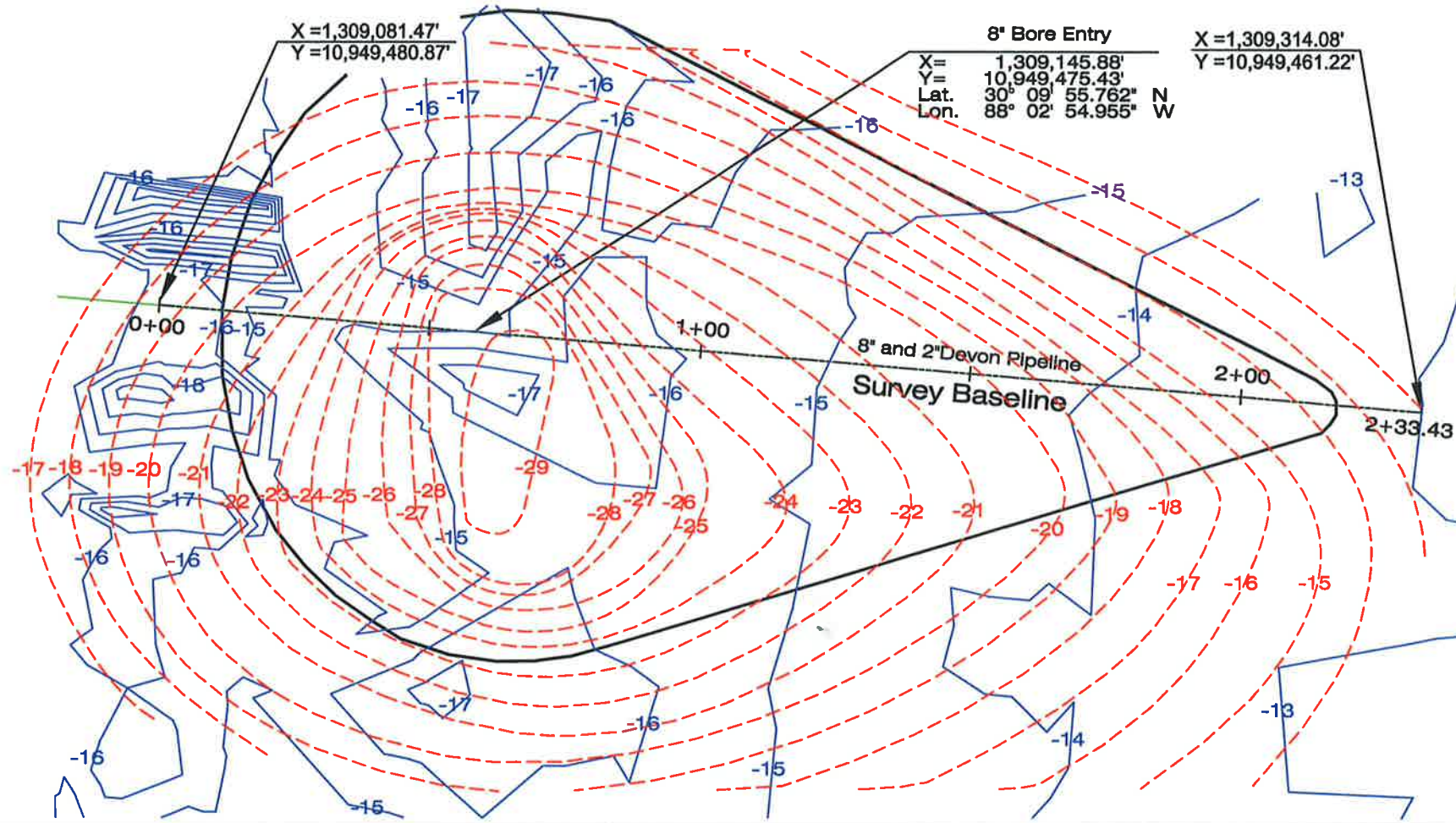
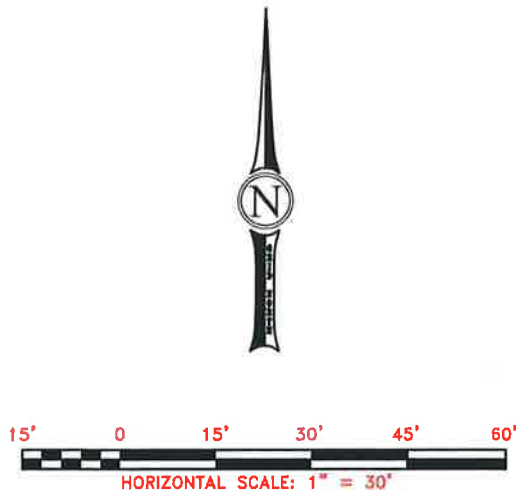


**AS-BUILT 2" SUPPLY GAS PIPELINE**  
 FROM ALABAMA AREA BLOCK 113 "A" STRUCTURE  
 TO MOBILE OCS AREA BLOCK 826 CAISSON #1  
 MOBILE & BALDWIN COUNTIES, ALABAMA



PREPARED FOR: <b>CHET MORRISON CONTRACTORS, INC</b> HOUMA, LA	
DRAWING NO.: 8570-Asbuilt_2in_Seg17474-3	REV NO.: 0
DRAFTED BY: S.S.S.	DATE: DEC 1, 2008
CHK. BY: RM	SHEET: 3 OF 4
APP. BY: DKB	

# PLAN VIEW ENTRY PROFILE



**LEGEND:**

- -22 — Contour interval from the 07-2009 survey
- - - -22 - Contour interval from the 07-2008 survey

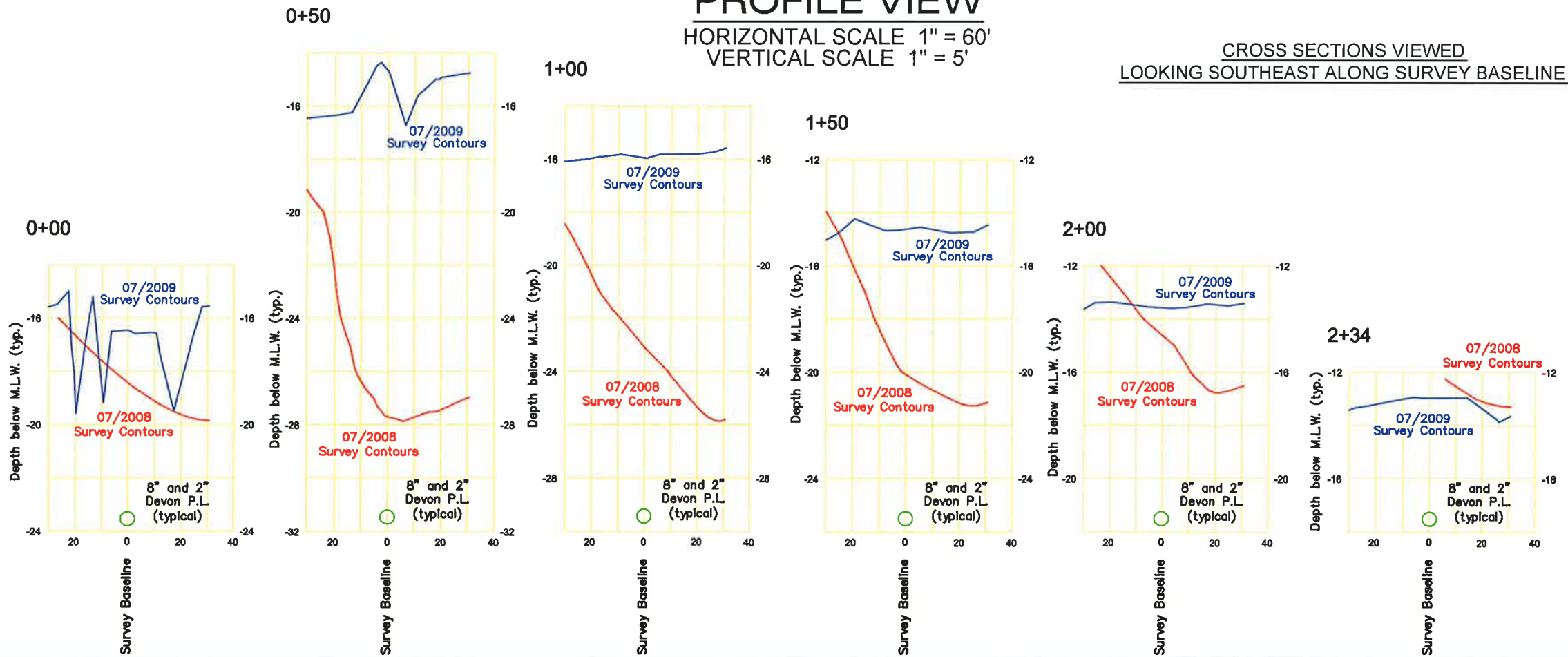
**NOTES:**

1. Coordinates and orientation are referenced to the Alabama State Plane Coordinate System of 1927, U.T.M. Zone 16 North. Units are in U.S. Survey Feet.
2. The 8" and 2" Pipelines as shown in the cross sections are being shown for graphical purposes only. They are not located vertically in the correct position.
3. This map was prepared for DEVON ENERGY CORPORATION by COCHRANE TECHNOLOGIES, INC. for the exclusive use of DEVON ENERGY CORPORATION for the specific project defined on this map.
4. The acceptance and use of this map by DEVON ENERGY CORPORATION or associated subcontractors shall release COCHRANE TECHNOLOGIES, INC. from any and all losses incurred as a result of its use.

## PROFILE VIEW

HORIZONTAL SCALE 1" = 60'  
VERTICAL SCALE 1" = 5'

CROSS SECTIONS VIEWED  
LOOKING SOUTHEAST ALONG SURVEY BASELINE



# ENTRY PROFILE

## BLOCK 113

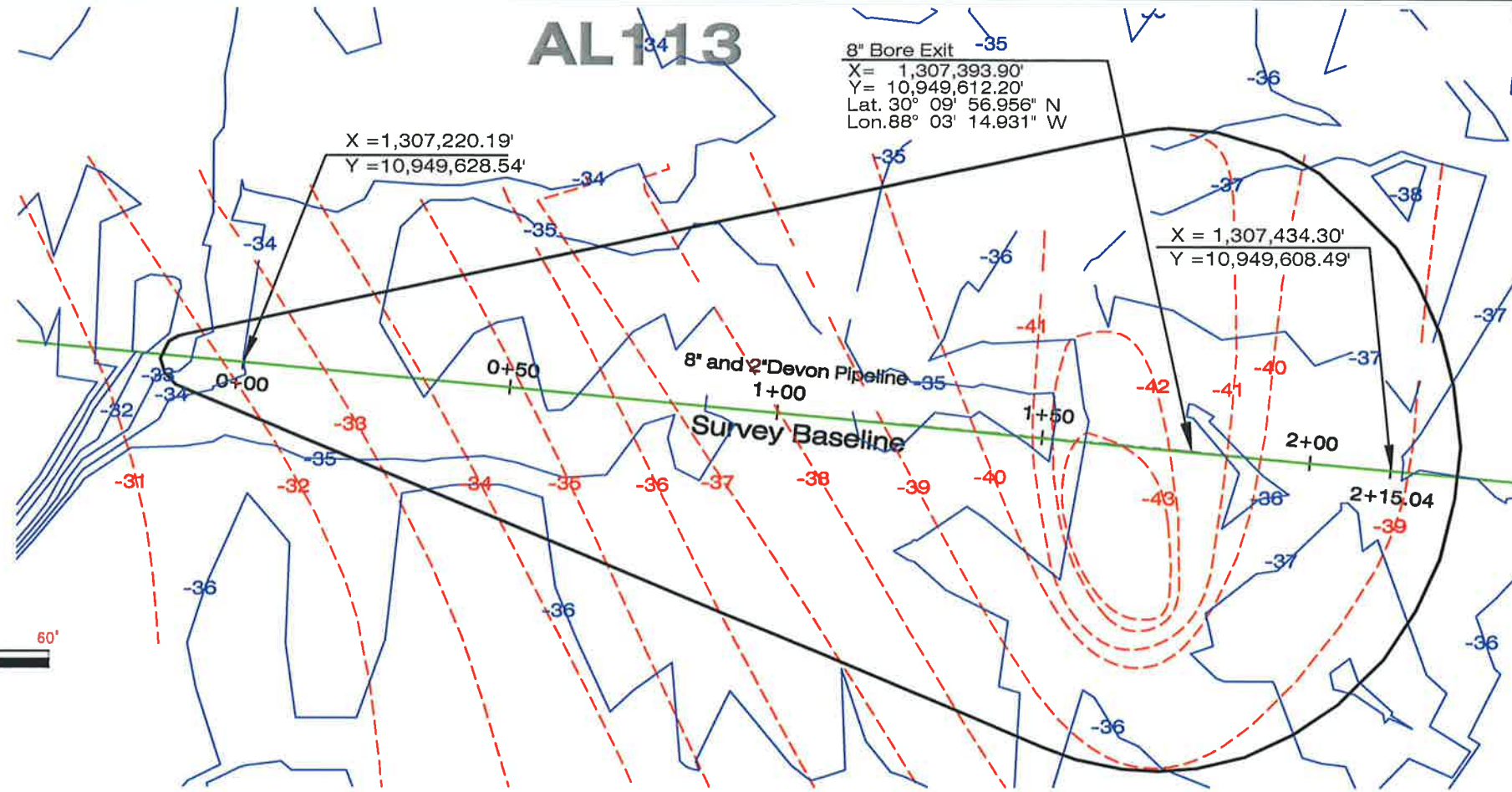
### ALABAMA AREA



PREPARED FOR:	
DEVON ENERGY CORPORATION HOUSTON TEXAS	
DRAWING NO.:	8962-AL 113 (2009) ENTRY PROFILE
DRAFTED BY.:	R.R. REV NO.: 1
CHK. BY.:	DATE: 07-27-2009
APP. BY.:	SHEET: 1 OF 8



# PLAN VIEW EXIT PROFILE



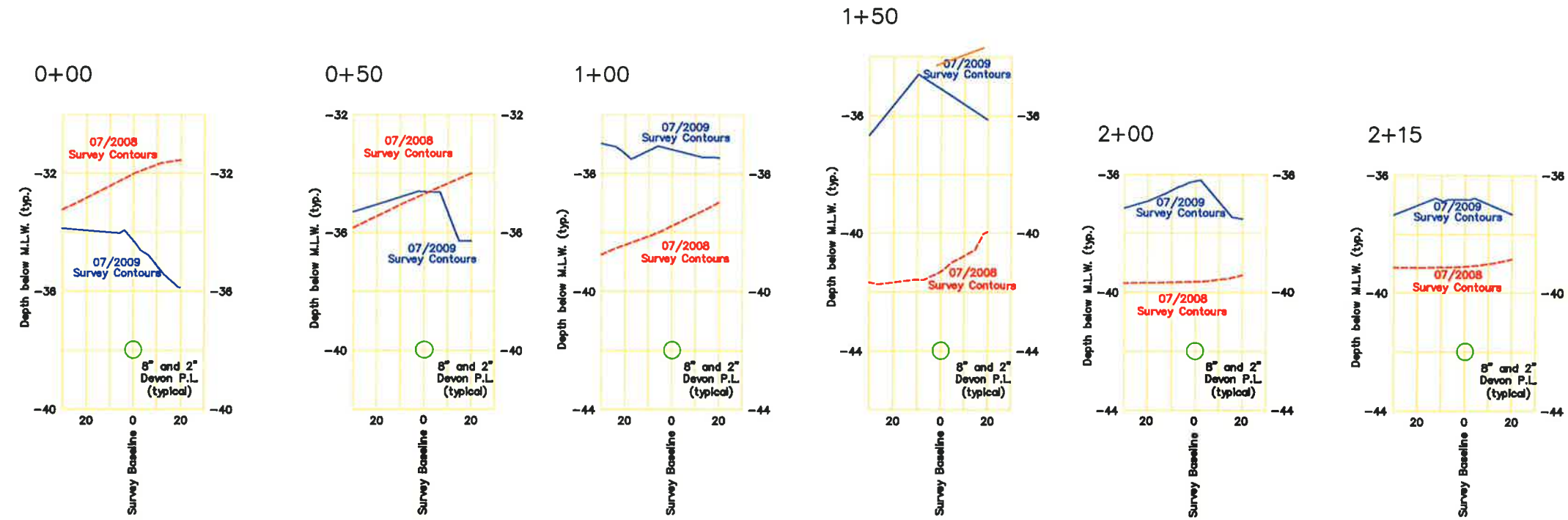
**LEGEND:**  
--- -22 - Contour interval from the 07-2008 survey  
--- -22 - Contour interval from the 07-2009 survey

- NOTES:**
- Coordinates and orientation are referenced to the Alabama State Plane Coordinate System of 1927, U.T.M. Zone 16 North. Units are in U.S. Survey Feet.
  - The 8" and 2" pipelines as shown in the cross sections are being shown for graphical purposes only. They are not located vertically in the correct position.
  - This map was prepared for DEVON ENERGY CORPORATION by COCHRANE TECHNOLOGIES, INC. for the exclusive use of DEVON ENERGY CORPORATION for the specific project defined on this map.
  - The acceptance and use of this map by DEVON ENERGY CORPORATION or associated subcontractors shall release COCHRANE TECHNOLOGIES, INC. from any and all losses incurred as a result of its use.

## PROFILE VIEW

HORIZONTAL SCALE 1" = 60'  
 VERTICAL SCALE 1" = 5'

CROSS SECTIONS VIEWED  
 LOOKING SOUTHEAST ALONG SURVEY BASELINE



# EXIT PROFILE BLOCK 113 ALABAMA AREA



PREPARED FOR:  
**DEVON ENERGY CORPORATION**  
 HOUSTON TEXAS

DRAWING NO.: **8802-AL 113 (2008) EXIT PROFILE**  
 DRAFTED BY: **R.L.R.** REV NO.: **1**  
 CHK. BY: DATE: **07-27-2009**  
 APP. BY: SHEET: **1 OF 8**

337-837-3334 LAFAYETTE, LA

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